Simon Fraser University
Calendar
2005 • 2006

http://students.sfu.ca/calendar

(last updated August 19, 2005)
Enrolment Limitations
It should be carefully noted that possession of the minimum requirements does not in itself guarantee admission to any course, program, department or faculty at the University. In those instances where the number of qualified applicants exceeds the number that, in the opinion of the University, can be accommodated, the University reserves the right to select the quota from among the qualified applicants. Address all enquiries to: Student Services, Simon Fraser University, 8888 University Drive, Burnaby, BC, V5A 1S6, Canada.

Protection of Privacy
Simon Fraser University collects and retains student and alumni personal information under the authority of the University Act (R.S.B.C. 1996, c.468, s. 27(4)(a)). The information is related directly to and needed by the University for the purposes of admission, registration, graduation and other activities related to its programs, being a member of the Simon Fraser University community and attending a public post secondary institution in the Province of British Columbia. The information will be used to admit, register and graduate students, record academic achievement, issue library cards and transit passes and administer and operate academic, athletic, recreational, residences, alumni and other University programs. Information on admission, registration and academic achievement may also be used for statistical and research purposes by the University and, at the provincial level, through the BC Educational Records Linkage File. The personal records in the link file are identifiable and are not used for other administrative purposes.

In signing an application for admission, all applicants are advised that the information they provide and any other information placed into the student record will be protected and used in compliance with British Columbia’s Freedom of Information and Protection of Privacy Act (R.S.B.C. 1996, c. 165).

If you have any questions about the collection and use of your personal information, please contact the Dean of Student Services and Registrar, MBC 3300, Simon Fraser University, 8888 University Drive, Burnaby, BC V5A 1S6; 604.291.3111.

Notification of Disclosure of Personal Information to the BC University Student Outcomes Project
Each year, the BC University Student Outcomes Project gathers student outcomes information from graduates of BC’s universities in collaboration with The University Presidents Council (TUPC) and the Ministry of Advanced Education. Each BC university provides to the University Student Outcomes Project student identification information (student's name, student ID number), student contact information (address and telephone number), student demographic characteristics and academic program information. The information is used by the project to contact BC university graduates to conduct voluntary telephone surveys two and five years after graduation.

Survey participants are asked to report their level of program satisfaction, degree of skill development, education financing and debt load, participation in further education, and employment outcomes. The information gathered by the survey is summarized in aggregate form without identifying individual students. The data is used to meet the demand for university accountability at the system level in BC; to gather timely and relevant data for use in program evaluation and planning processes; and to ensure that new, continuing and prospective students are provided with information they can use to help them make informed career decisions.

Notification of Disclosure of Personal Information to Statistics Canada
Statistics Canada is the national statistical agency. As such, Statistics Canada carries out hundreds of surveys each year on a wide range of matters, including education.

It is essential to be able to follow students across time and institutions to understand, for example, the factors affecting enrolment demand at post-secondary institutions. The increased emphasis on accountability for public investment means that it is also important to understand outcomes. In order to carry out such studies, Statistics Canada asks all colleges and universities to provide data on students and graduates. Institutions collect and provide to Statistics Canada student identification information (student’s name, student ID number, social insurance number), student contact information (address and telephone number), student demographic characteristics, enrollment information, previous education, and labor activity.

The federal Statistics Act provides the legal authority for Statistics Canada to obtain access to personal information held by educational institutions. The information may be used only for statistical purposes, and the confidentiality provisions of the Statistics Act prevent the information from being released in any way that would identify a student.

Students who do not wish to have their information used are able to ask Statistics Canada to remove their identification and contact information from the national database.

Further information on the use of this information can be obtained from Statistics Canada’s web site www.statcan.ca or by writing to the Postsecondary Section, Centre for Education Statistics, 17th floor, R.H. Coats Building, Holland Avenue, Ottawa, K1A 0T6.

Calendar Changes and Corrections
The Board of Governors and the Senate of Simon Fraser University reserve the right to make changes in this Calendar without prior notice. This Calendar is printed to provide students and others with information about Simon Fraser University. The University considers this Calendar to be accurate at the time of printing. In the event of errors, the actual courses, curricula, policies, procedures, regulations and requirements in effect will prevail over the provisions printed in the Calendar. In addition, the policies, procedures, programs, regulations and requirements are constantly being reviewed and revised. Any such revision may be made by Simon Fraser University without notice and shall take effect at the time of the revision unless a later date is specified when the revision is adopted. Simon Fraser University will endeavor to give the University community as much notice of the revision as it considers the circumstances permit, and will endeavor to incorporate the revision in the next printing of the Calendar. Revisions include additions, cancellations and deletions as well as changes.

Calendar Distribution
Registered Simon Fraser University students are entitled to one free copy of the Calendar each year at the SFU Bookstore on the Burnaby campus, at Information and Registration Services at Harbour Centre, or at Student and Registrar Services at Simon Fraser University Surrey.

To pick up an extra Calendar, or to have one mailed to you, the following shows the costs.

<table>
<thead>
<tr>
<th>Cost</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>$3.75</td>
<td>cost per copy</td>
</tr>
<tr>
<td>$8.75</td>
<td>mailed within BC</td>
</tr>
<tr>
<td>$11.02</td>
<td>mailed within Continental North America</td>
</tr>
<tr>
<td>$23.52</td>
<td>mailed internationally (airmail)</td>
</tr>
</tbody>
</table>

Acceptable forms of payment include Visa, MasterCard, American Express, money orders in Canadian funds, or a cheque drawn on a Canadian bank.

The Calendar is distributed to many universities, colleges, secondary schools and public libraries in British Columbia, and to all Canadian universities for reference purposes. The Calendar can also be accessed in both HTML and PDF formats at http://students.sfu.ca/calendar.

Calendar Production
Published by Student Services, Simon Fraser University. For changes, updates and suggestions, please email: calendar-sfu@sfu.ca.

Editor: Jo Hinchcliffe BA (Br Col), MALS (S Fraser)
Editorial Assistants: Anissa Ip, Susan Walter
Communication Services, Student Services
Printer: Fidelity National Print Solutions

Simon Fraser University 2005 - 2006
About Simon Fraser University

The University is named after Simon Fraser, Loyalist, fur-trader and explorer, who in 1808 completed one of the greatest journeys in the annals of Canadian history by descending the mighty river which today bears his name. The Fraser family coat of arms forms the basis of the University's coat of arms which appears on the title page of this Calendar. The colors of Simon Fraser University are red and blue.

In January 1963 a report entitled Higher Education in British Columbia and a Plan for the Future, by Dr. J.B. Macdonald, recommended the creation of a new university in the Lower Mainland. Two months later the establishment of Simon Fraser University received formal assent in the British Columbia Legislature, and in May of the same year Dr. Gordon M. Shrum was appointed Chancellor.

From a variety of sites which were offered, the Chancellor recommended to the Provincial Government that the top of 1200 foot Burnaby Mountain be selected for the new university. Lying east of Vancouver, the site commands magnificent views of Burrard Inlet, the mountains, the Fraser River and Vancouver Harbour.

Architects were invited to compete in the design of the overall campus. The Vancouver firm of Erickson/Massey won the competition, and the four architects who had been runners-up in the competition each designed at least one building within the overall plan. The outstanding architecture has won many awards.

Construction began in the spring of 1964 and eighteen months later, on September 9, 1965, Simon Fraser University opened to 2,500 students. Since those early years the University has grown substantially. In September 2004 approximately 22,700 students were enrolled in courses. At the June 2004 Convocation ceremonies 3,300 degrees were conferred, while at the University's October Convocation, 2,100 students received their degrees.

In keeping with Simon Fraser University's commitment to accessibility, a downtown Vancouver campus was opened on May 5, 1989 in the historic Spencer Building at 515 West Hastings Street. Since then, the Vancouver campus has expanded to include the Morris J. Woss Centre for Dialogue, opened in September 2000, the Chief Dan George Centre for Advanced Education and the new Segal Graduate School of Business (opening in 2005). These sites focus on the advanced recurring education needs of the urban populace.

Simon Fraser University Surrey first opened its doors in September 2002 and in the fall of 2006 will open its new permanent residence. The new facility will be located in Central City, an award-winning architectural complex adjacent to the Surrey Central SkyTrain station. Central City was designed by architect Bing Thom, who will receive an honorary degree from SFU in 2005. Completed in 2003, it has already won accolades both nationally and internationally, SFU Surrey currently occupies 32,000 square feet in Central City. The campus will grow to 322,000 square feet to support planned growth to 2,500 full-time equivalent students by 2010.
Table of Contents

Preface 3  
About Simon Fraser University 4  
Table of Contents 5  
University Telephone Numbers 6  
Programs Offered 7  
Academic Calendar of Events 10  
Significant Future Dates 11  
Academic and Campus Services 12  
Simon Fraser University Surrey 21  
Simon Fraser University Vancouver 23

Undergraduate Studies 27

General Information 29  
Admission and Readmission 33  
Introduction 33  
Admission Process 33  
Contents 33  
Registration/Enrolment 45  
General Regulations 48  
Undergraduate Fees 52  
Financial Assistance and Awards 55  
Contents 55  
University Administered Programs 56  
Externally Administered Programs 85  
Government Administered Programs 116  
Study in BC for Students from Other Provinces 117  
International Students 117  
For More Information 117  
Index 118  
Faculty of Applied Sciences 124  
School of Communication 124  
School of Computing Science 126  
School of Engineering Science 131  
General Studies Program 134  
Geographic Information Science Program 135  
School of Interactive Arts and Technology 136  
School of Kinesiology 139  
TechOne Program 143  
Faculty of Arts and Social Sciences 144  
Department of Archaeology 147  
Asia-Canada Program 148  
Centre for Canadian Studies 149  
Cognitive Science Program 152  
School for the Contemporary Arts 153  
School of Criminology 160  
Department of Economics 163  
Department of English 165  
First Nations Studies Program 166

Department of French 168  
Department of Geography 171  
Department of Gerontology 174  
Department of History 174  
Department of Humanities 177  
International Studies 178  
Latin American Studies Program 180  
Department of Linguistics 181  
Mathematics Program 184  
Department of Philosophy 185  
Department of Political Science 186  
Department of Psychology 189  
Department of Sociology and Anthropology 190  
Statistics Program 195  
Centre for Sustainable Community Development 195  
Department of Women’s Studies 196  
Faculty of Business Administration 200  
Faculty of Education 206  
Faculty of Health Sciences 212  
Faculty of Science 213  
Department of Biological Sciences 214  
Department of Chemistry 217  
Department of Earth Sciences 218  
Environmental Science Program 220  
General Science Program 223  
Management and Systems Science Program 224  
Department of Mathematics 224  
Department of Molecular Biology and Biochemistry 229  
Physical Geography Program 231  
Department of Physics 232  
Department of Statistics and Actuarial Science 235  
Continuing Studies 238  
Co-operative Education 240  
Undergraduate Semester in Dialogue 242

Graduate Studies 243

Graduate General Regulations 245  
Graduate Fees 252  
Financial Aid for Graduate Students 255  
Contents 255  
Graduate Studies 269  
Faculty of Applied Sciences 270  
School of Communication 270  
School of Computing Science 272  
School of Engineering Science 274  
School of Interactive Arts and Technology 276  
School of Kinesiology 280  
School of Resource and Environmental Management 281  
Faculty of Arts and Social Sciences 284  
Department of Archaeology 284  
School for the Contemporary Arts 285  
School of Criminology 285  
Department of Economics 287  
Department of English 288  
Department of French 290  
Department of Geography 291  
Department of Gerontology 291  
Department of History 292  
Latin American Studies Program 294  
Liberal Studies Program 294  
Department of Linguistics 295  
Department of Philosophy 296  
Department of Political Science 297  
Department of Psychology 298  
Public Policy Program 300  
Publishing Program 300  
Department of Sociology and Anthropology 301  
Urban Studies Program 302  
Department of Women’s Studies 302  
Faculty of Business Administration 304  
Graduate Programs Offered 304  
Faculty of Education 309  
Graduate Programs 310  
Field Programs 313  
Faculty of Health Sciences 314  
Graduate Programs 314  
Faculty of Science 316  
Department of Biological Sciences 316  
Department of Chemistry 317  
Department of Earth Sciences 318  
Geography Program 319  
Department of Mathematics 319  
Department of Molecular Biology and Biochemistry 320  
Department of Physics 321  
Department of Statistics and Actuarial Science 322

Course Catalogue 323

Centres and Institutes 448  
Governing Bodies and Faculty 452  
Date Calendar 460  
Burnaby Mountain Campus Map 461  
Simon Fraser University Surrey Map 462  
Simon Fraser University Vancouver Map 463  
Index 464
## Burnaby Mountain Campus

<table>
<thead>
<tr>
<th>Service</th>
<th>Phone</th>
<th>Fax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bookstore</td>
<td>604.291.3656</td>
<td>604.291.3401</td>
</tr>
<tr>
<td>Campus Community Services</td>
<td>604.291.4710</td>
<td>604.291.4341</td>
</tr>
<tr>
<td>Centre for Students with Disabilities</td>
<td>604.291.3112</td>
<td>604.291.4384</td>
</tr>
<tr>
<td>Orientation (new students)</td>
<td>604.291.3728</td>
<td>604.291.5773</td>
</tr>
<tr>
<td>Campus Security</td>
<td>604.291.3100</td>
<td>604.291.3489</td>
</tr>
<tr>
<td>Parking</td>
<td>604.291.4577</td>
<td>604.291.5386</td>
</tr>
<tr>
<td>Security (24 hours)</td>
<td>604.291.3100</td>
<td>604.291.3489</td>
</tr>
<tr>
<td>Winter Road Conditions</td>
<td>604.444.4929</td>
<td></td>
</tr>
<tr>
<td>Childcare Centre</td>
<td>604.291.4869</td>
<td>604.291.3058</td>
</tr>
<tr>
<td>Computing Services Information</td>
<td>604.291.3234</td>
<td>604.291.4242</td>
</tr>
<tr>
<td>Continuing Studies</td>
<td>604.291.5100</td>
<td>604.291.3851</td>
</tr>
<tr>
<td>Co-operative Education</td>
<td>604.291.3255</td>
<td>604.291.5496</td>
</tr>
<tr>
<td>Counselling Services</td>
<td>604.291.4615</td>
<td>604.291.5781</td>
</tr>
<tr>
<td>Distance Education, Centre for</td>
<td>604.291.3524</td>
<td>604.291.4964</td>
</tr>
<tr>
<td>Faculty of Applied Sciences</td>
<td>604.291.4724</td>
<td>604.291.5802</td>
</tr>
<tr>
<td>Faculty of Arts and Social Sciences</td>
<td>604.291.4414</td>
<td>604.291.3033</td>
</tr>
<tr>
<td>Faculty of Business Administration</td>
<td>604.291.3708</td>
<td>604.291.4920</td>
</tr>
<tr>
<td>Faculty of Education</td>
<td>604.291.3395</td>
<td>604.291.3203</td>
</tr>
<tr>
<td>Faculty of Health Science</td>
<td>604.291.4821</td>
<td>604.291.5927</td>
</tr>
<tr>
<td>Faculty of Science</td>
<td>604.291.4590</td>
<td>604.291.3424</td>
</tr>
<tr>
<td>First Nations Student Centre</td>
<td>604.291.3555</td>
<td>604.291.5682</td>
</tr>
<tr>
<td>Graduate Studies</td>
<td>604.291.4255</td>
<td>604.291.3080</td>
</tr>
<tr>
<td>Dean of Graduate Studies</td>
<td>604.291.3188</td>
<td></td>
</tr>
<tr>
<td>Student Admission, Registration, Records</td>
<td>604.291.3188</td>
<td></td>
</tr>
<tr>
<td>Human Rights Office</td>
<td>604.291.4446</td>
<td>604.291.5468</td>
</tr>
<tr>
<td>Health Services</td>
<td>604.291.4615</td>
<td>604.291.5781</td>
</tr>
<tr>
<td>Library, W.A.C. Bennett</td>
<td>604.291.3869</td>
<td>604.291.3023</td>
</tr>
<tr>
<td>Media and Public Relations</td>
<td>604.291.3210</td>
<td>604.291.3039</td>
</tr>
<tr>
<td>Microcomputer Store</td>
<td>604.291.3098</td>
<td>604.291.4783</td>
</tr>
<tr>
<td>President's Office</td>
<td>604.291.4641</td>
<td>604.291.4800</td>
</tr>
<tr>
<td>Analytical Studies</td>
<td>604.291.4600</td>
<td>604.291.5999</td>
</tr>
<tr>
<td>Recreational Services and Athletics</td>
<td>604.291.3675</td>
<td>604.291.4922</td>
</tr>
<tr>
<td>Residence and Housing</td>
<td>604.291.4201</td>
<td>604.291.5903</td>
</tr>
<tr>
<td>SPU International</td>
<td>604.291.4232</td>
<td>604.291.5880</td>
</tr>
<tr>
<td>Simon Fraser Student Society Ombuds Officers</td>
<td>604.291.3870</td>
<td>604.291.5843</td>
</tr>
<tr>
<td>Student Services</td>
<td>604.291.3224</td>
<td>604.291.4969</td>
</tr>
<tr>
<td>Academic Resources</td>
<td>604.291.4356</td>
<td></td>
</tr>
<tr>
<td>Admissions</td>
<td>604.291.3224</td>
<td></td>
</tr>
<tr>
<td>Campus Tours</td>
<td>604.291.5620</td>
<td></td>
</tr>
<tr>
<td>Financial Assistance and Awards</td>
<td>604.291.4356</td>
<td></td>
</tr>
<tr>
<td>Graduation</td>
<td>604.291.3206</td>
<td></td>
</tr>
<tr>
<td>Student Recruitment</td>
<td>604.291.3397</td>
<td></td>
</tr>
<tr>
<td>Switchboard</td>
<td>604.291.3111</td>
<td>604.291.4242</td>
</tr>
<tr>
<td>University Advancement</td>
<td>604.291.4154</td>
<td>604.291.4958</td>
</tr>
<tr>
<td>U-Pass Office</td>
<td>604.268.6805</td>
<td>604.291.4969</td>
</tr>
</tbody>
</table>

## Surrey Campus

<table>
<thead>
<tr>
<th>Service</th>
<th>Phone</th>
<th>Fax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Computing Services</td>
<td>604.268.7470</td>
<td>604.268.7488</td>
</tr>
<tr>
<td>Administration</td>
<td>604.268.7500</td>
<td>604.268.7488</td>
</tr>
<tr>
<td>Co-operative Education</td>
<td>604.268.7430</td>
<td>604.268.7488</td>
</tr>
<tr>
<td>External Relations</td>
<td>604.268.7408</td>
<td>604.268.7488</td>
</tr>
<tr>
<td>Library</td>
<td>604.268.7411</td>
<td>604.268.7420</td>
</tr>
<tr>
<td>Security</td>
<td>604.268.7511</td>
<td>604.268.7488</td>
</tr>
<tr>
<td>Student and Registrar Services</td>
<td>604.268.7400</td>
<td>604.268.7403</td>
</tr>
</tbody>
</table>

## Vancouver Campus

<table>
<thead>
<tr>
<th>Service</th>
<th>Phone</th>
<th>Fax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bookstore</td>
<td>604.291.5048</td>
<td>604.291.5219</td>
</tr>
<tr>
<td>Chief Dan George Centre for Advanced Education</td>
<td>604.268.7860</td>
<td>604.291.5098</td>
</tr>
<tr>
<td>Computing Services</td>
<td>604.291.5030</td>
<td>604.291.5167</td>
</tr>
<tr>
<td>Continuing Studies</td>
<td>604.291.5100</td>
<td>604.291.5098</td>
</tr>
<tr>
<td>Harbour Centre Administration</td>
<td>604.291.5010</td>
<td>604.291.5008</td>
</tr>
<tr>
<td>Health Services</td>
<td>604.291.5200</td>
<td>604.291.5025</td>
</tr>
<tr>
<td>Information and Registration Services</td>
<td>604.291.5000</td>
<td>604.291.5060</td>
</tr>
<tr>
<td>Library, Belzberg</td>
<td>604.291.5050</td>
<td>604.291.5052</td>
</tr>
<tr>
<td>Meeting and Event Services</td>
<td>604.291.5083</td>
<td>604.291.5060</td>
</tr>
<tr>
<td></td>
<td>604.291.5085</td>
<td></td>
</tr>
<tr>
<td>Morris J. Wosk Centre for Dialogue</td>
<td>604.291.5800</td>
<td>604.291.5818</td>
</tr>
<tr>
<td>Public Relations</td>
<td>604.291.5151</td>
<td>604.291.5098</td>
</tr>
<tr>
<td>Security</td>
<td>604.291.5029</td>
<td>604.268.7610</td>
</tr>
</tbody>
</table>
Programs Offered

University Degrees

Honorary Degrees
Doctor of Fine Arts Honoris Causa
DFA (Fine Arts)
Doctor of Laws Honoris Causa
LLD (Laws)
Doctor of Letters Honoris Causa
DLit (Letters)
Doctor of Science Honoris Causa
DSc (Science)

Faculty of Applied Sciences
Bachelor of Applied Science (Honors)
Bachelor of Applied Science
Bachelor of Arts (Honors)
Bachelor of Arts
Bachelor of General Studies (Applied Sciences)
Bachelor of Science (Honors)
Bachelor of Science
Bachelor of Science (Information Technology, Tech BC)
Bachelor of Science (Interactive Arts, Tech BC)
Bachelor of Science (Kinesiology) (Honors)
Bachelor of Science (Kinesiology)
Master of Applied Science
Master of Applied Science (Information Technology)
Master of Applied Science (Interactive Arts)
Master of Arts
Master of Arts under Special Arrangements
Master of Engineering
Master of Resource Management
Master of Resource Management (Planning)
Master of Science
Master of Science under Special Arrangements
Doctor of Philosophy
Doctor of Philosophy under Special Arrangements

Faculty of Arts and Social Sciences
Bachelor of Arts (Honors)
Bachelor of Arts (Joint Honors)
Bachelor of Arts
Bachelor of Fine Arts
Bachelor of General Studies
Master of Arts
Master of Arts Liberal Studies
Master of Arts under Special Arrangements
Master of Fine Arts
Master of Public Policy
Master of Publishing
Master of Urban Studies
Doctor of Philosophy
Doctor of Philosophy under Special Arrangements

Faculty of Business Administration
Bachelor of Business Administration (Honors)
Bachelor of Business Administration
Master of Business Administration
Doctor of Philosophy

Faculty of Education
Bachelor of Education (Honors)
Bachelor of Education
Master of Arts
Master of Arts under Special Arrangements
Master of Education
Master of Science
Master of Science under Special Arrangements

Doctor of Education
Doctor of Philosophy
Doctor of Philosophy under Special Arrangements

Faculty of Health Sciences
Bachelor of Arts (Honors)*
Bachelor of Arts
Master of Science
*to be offered

Faculty of Science
Bachelor of Science (Honors)
Bachelor of Science
Master of Environmental Toxicology
Master of Pest Management
Master of Science
Master of Science under Special Arrangements
Doctor of Philosophy
Doctor of Philosophy under Special Arrangements

Certificates and Diplomas

All Faculties
Post Baccalaureate Diploma

Faculty of Applied Sciences
Certificate in Applied Human Nutrition
Certificate in Computing Studies
Certificate in Health and Fitness Studies
Post Baccalaureate Diploma
Post Baccalaureate Diploma in Communication
Post Baccalaureate Diploma in Computing Science
Post Baccalaureate Diploma in Kinesiology
Graduate Diploma in Quantitative Methods in Fisheries Management

Faculty of Arts and Social Sciences
Certificate in Chinese Studies
Certificate in Community Economic Development
Certificate in Criminology (General)
Certificate in Criminology (Advanced)
Certificate in Ethnic and Intercultural Relations
Certificate in Family Studies
Certificate in First Nations Language Proficiency
Certificate in French Canadian Studies
Certificate in French Language Proficiency
Certificate in Hellenic Studies
Certificate in Italian Studies
Certificate in Labor Studies
Certificate in Liberal Arts
Certificate in Native Studies Research
Certificate for Senior Citizens
Certificate in Spanish Language Proficiency
Certificate in Spatial Information Systems
Certificate in Teaching ESL Linguistics
Certificate in Urban Studies
Certificate in Women's Studies
Post Baccalaureate Diploma
Post Baccalaureate Diploma in Community Economic Development
Post Baccalaureate Diploma in Criminology
Post Baccalaureate Diploma in French and Education
Post Baccalaureate Diploma in Gerontology
Post Baccalaureate Diploma in Humanities
Post Baccalaureate Diploma in Social Policy Issues
Post Baccalaureate Diploma in Teaching English as a Second Language
Graduate Diploma in Urban Studies

Faculty of Business Administration
Graduate Diploma in Business Administration

Faculty of Education
Certificate in Literacy Instruction
Post Baccalaureate Diploma (General)
Post Baccalaureate Diploma in Early Childhood Education
Post Baccalaureate Diploma in Special Education
Graduate Diploma in Advanced Professional Studies in Education

Faculty of Science
Certificate in Actuarial Mathematics
Certificate in Forestry Geoscience
Post Baccalaureate Diploma in Biological Sciences
Graduate Diploma in Bioinformatics

Graduate Studies
Graduate Certificate in Development Studies

Credentials by Program

<table>
<thead>
<tr>
<th>Key to abbreviations used below</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA</td>
</tr>
<tr>
<td>BA honors</td>
</tr>
<tr>
<td>BASc</td>
</tr>
<tr>
<td>BBA</td>
</tr>
<tr>
<td>BBA honors</td>
</tr>
<tr>
<td>BEd</td>
</tr>
<tr>
<td>BEd honors</td>
</tr>
<tr>
<td>BFA</td>
</tr>
<tr>
<td>BGS</td>
</tr>
<tr>
<td>BSc</td>
</tr>
<tr>
<td>BSc honors</td>
</tr>
<tr>
<td>certificate</td>
</tr>
<tr>
<td>co-op</td>
</tr>
<tr>
<td>diploma</td>
</tr>
<tr>
<td>EEd</td>
</tr>
<tr>
<td>extended minor</td>
</tr>
<tr>
<td>graduate certificate</td>
</tr>
<tr>
<td>graduate diploma</td>
</tr>
<tr>
<td>joint major, joint honors, joint MA</td>
</tr>
<tr>
<td>MA</td>
</tr>
<tr>
<td>MALS</td>
</tr>
<tr>
<td>MASc</td>
</tr>
<tr>
<td>MBA</td>
</tr>
<tr>
<td>MEd</td>
</tr>
<tr>
<td>MEng</td>
</tr>
<tr>
<td>MET</td>
</tr>
<tr>
<td>MFA</td>
</tr>
<tr>
<td>minor</td>
</tr>
<tr>
<td>MPM</td>
</tr>
<tr>
<td>MPP</td>
</tr>
<tr>
<td>MPub</td>
</tr>
<tr>
<td>MRM</td>
</tr>
<tr>
<td>MSc</td>
</tr>
<tr>
<td>MUmb</td>
</tr>
<tr>
<td>PhD</td>
</tr>
</tbody>
</table>

Simon Fraser University 2005 - 2006
**A**

Actuarial Mathematics – certificate
Actuarial Science – BSc, honors, certificate
Advanced Professional Studies in Education – graduate diploma
Anthropology – BA, minor, extended minor, honors, co-op
Applied Human Nutrition – certificate
Applied Mathematics – BSc, honors
Applied and Computational Mathematics – MSc, PhD
Applied Physics – BSc, honors
Archaeology – BA, minor, extended minor, honors, MA, PhD, co-op
Archaeology and Anthropology – BA joint major
Archaeology and First Nations Studies – BA joint major
Art and Culture Studies – BA, minor
Art and Culture Studies and Sociology and/or Anthropology – BA joint major
Arts, General – BA, extended minor
Arts Education – MA, MEd, PhD
Asia-Canada – minor

**B**

Bioinformatics – graduate diploma
Biological Sciences – BSc, minor, honors, MSc, PhD, diploma, co-op
Business Administration – BBA, minor, honors, MBA, PhD, graduate diploma, co-op
Business Administration and Communication – BBA joint major
Business Administration and Computing Science – BBA joint major, BSc joint major
Business Administration and Economics – BBA joint major, joint honors, BA, joint major, joint honors Business Administration and Geography – BBA joint major, BA joint major
Business Administration and Latin American Studies – BBA, joint major, BA joint major
Business Administration and Psychology – BBA joint major, BA joint major

**C**

Canadian Studies – BA, minor, extended minor, honors
Canadian Studies and Anthropology – BA joint major, honors
Canadian Studies and Archaeology – BA joint major, honors
Canadian Studies and Business Administration – BA joint major, honors, BBA joint major, honors
Canadian Studies and Communication – BA joint major, honors
Canadian Studies and Criminology – BA joint major, honors
Canadian Studies and Economics – BA joint major, honors
Canadian Studies, Economics and/or Business Administration – BBA joint major, honors, BA joint major, honors
Canadian Studies and English – BA joint major, honors
Canadian Studies and Geography – BA joint major, honors
Canadian Studies and History – BA joint major, honors
Canadian Studies and Political Science – BA joint major, honors
Canadian Studies and Sociology – BA joint major, honors
Canadian Studies and Sociology and/or Anthropology – BA joint major, honors
Chemical Physics – BSc, honors, MSc, PhD, co-op
Chemistry – BSc, minor, honors, MSc, PhD, co-op
Chinese Studies – certificate
Cognitive Science – BA, honors
Communication – BA, minor, extended minor, honors, MA, PhD, diploma, co-op

**D**

Community Economic Development – certificate, diploma
Computer and Electronics Design – minor
Computing Science – BSc, minor, honors, BA, honors, MSc, PhD, diploma, co-op
Computing and Molecular Biology and Biochemistry – BSc joint major
Computing Sciences – certificate
Contemporary Arts – BA, BFA, minor, extended minor, joint major, MFA
Counselling and Human Development – minor
Counselling Psychology – MA, MEd
Criminology – BA, minor, extended minor, honors, MA, PhD, general and advanced certificate, diploma, co-op
Criminology and Women’s Studies – BA joint major
Curriculum and Instruction – minor, MA
Curriculum Theory and Implementation – PhD

**E**

Dance – BFA, extended minor
Development Studies – graduate certificate

**F**

Early Childhood Education – minor, diploma
Earth Sciences – BSc, minor, honors, MSc, PhD, co-op
Economics – BA, minor, honors, MA, PhD, co-op
Education – BEd, honors, MEd, MA, MSc, PhD, EdD, diploma, certificate, graduate diploma
Educational Leadership – MA, MEd, EdD
Educational Practice – MEd
Educational Psychology – minor, MEd, PhD
Elementary School Physical Education – minor
Engineering Science – BASc, MAsc, MEng, PhD, co-op
English – BA, minor, extended minor, honors, MA, PhD, co-op
English and French Literatures – BA joint major, joint MA
English and Humanities – BA joint major
English and Women’s Studies – BA joint major
Environmental Chemistry – minor
Environmental Education – minor
Environmental Science – BSc, honors, co-op
Environmental Toxicology – minor, MET
Ethnic and Intercultural Relations – certificate
Executive MBA – MBA

**G**

Family Studies – certificate
Film – BFA, extended minor
Film and Video Studies – minor
Fine and Performing Arts – minor
Fine Arts in Interdisciplinary Studies – MFA
First Nations Language Proficiency – certificate
First Nations Studies – minor
First Nations Studies and Archaeology – BA joint major
Forestry Geoscience – certificate
French – BA, extended minor, honors, MA
French Canadian Studies – certificate
French Education and diploma
French, History, Politics – BA joint major
French Language Proficiency – certificate

**H**

Gender Studies – minor
General Science – BSc
General Studies – BGS
Geographic Information Science – BSc, honors
Geography – BA, minor, extended minor, honors, MA, MSc, PhD, certificate, co-op
Geography and Economics – Environmental Specialty – BA joint major
Gerontology – minor, MA, diploma
Global Asset and Wealth Management – MBA

**I**

Health and Fitness Studies – certificate
Hellenic Studies – certificate

**K**

Kinesiology – BSc, minor, honors, MSc, PhD, diploma, co-op

**L**

Labor Studies – minor, certificate
Latin American Studies – minor, extended minor, MA, co-op
Latin American Studies and Archaeology – BA joint major
Latin American Studies and Business Administration – BA joint major, BBA joint major
Latin American Studies and Communication – BA joint major
Latin American Studies and Economics – BA joint major
Latin American Studies and Geography – BA joint major
Latin American Studies and History – BA joint major
Latin American Studies and Political Science – BA joint major
Latin American Studies and Sociology and/or Anthropology – BA joint major
Learning Disabilities – minor
Liberal Arts – certificate, co-op
Liberal Studies – MALS
Linguistics – BA, minor, extended minor, honors, MA, PhD
Literacy Instruction – certificate

**M**

Management and Systems Science – BSc, honors, co-op
Management of Technology MBA – MBA
Marine Science
Mathematical Physics – BSc (honors only)
Mathematics – BA, minor, extended minor, honors, BSc, minor, honors, MSc, PhD, co-op
Mathematics and Computing Science – BSc joint honors
Mathematics Education – PhD
Molecular Biology and Biochemistry – BSc, minor, honors, MSc, PhD, co-op
Molecular Biology and Biochemistry and Business Administration – BSc joint major, joint honors
Music – BFA, extended minor
Master of Arts – co-op

**N**

Native Studies Research – certificate, co-op
Natural Resource Management and Business Administration – MRM, MBA joint
Nuclear Science – minor

**P**

Pest Management – MPM
Philosophy – BA, minor, extended minor, honors, MA, co-op
Philosophy and Humanities – BA joint major
Physical Education – minor
Physical Geography – BSc, minor, honors, co-op
Physics – BSc, minor, honors, MSc, PhD, co-op
Physics and Physiology – BSc (honors only)
Programs Offered  

Political Science – BA, minor, extended minor, honors, MA, PhD, co-op  
Political Science and Economics – BA joint major  
Political Science and Women’s Studies – BA joint major  
Population and Public health – MSc  
Psychology – BA, minor, extended minor, honors, MA, PhD, co-op  
Psychology and Criminology – BA joint major  
Psychology and Women’s Studies – BA joint major  
Public Administration and Community Services – extended minor  
Public Policy – MPP  
Publishing – minor, MPub  
Quantitative Methods in Fisheries Management – graduate diploma  
Resource and Environmental Management – MRM, MRM (Planning), PhD, co-op  
Science, General – BSc  
Secondary Mathematics Education – minor, MSc, MEd  
Senior Citizens, Certificate for – certificate  
Social Policy Issues – diploma  
Sociology – BA, minor, extended minor, honors, co-op  
Sociology and Anthropology – BA joint major, joint honors, MA, PhD, co-op  
Sociology or Anthropology and Art and Culture Studies – BA joint major  
Sociology or Anthropology and Communication – BA joint major  
Sociology and/or Anthropology and Criminology – BA joint major  
Sociology and/or Anthropology and Linguistics – BA joint major  
Sociology and/or Anthropology and Women’s Studies – BA joint major  
Spanish Language Proficiency – certificate  
Spatial Information Systems – certificate  
Special Education – diploma  
Specialist MBA – MBA  
Statistics – BA, minor, extended minor, honors, BSc, minor, honors, MSc, PhD, co-op  
Teaching English as a Second Language – diploma  
Teaching English as a Second/Foreign Language – MEd  
Teaching ESL Linguistics – certificate  
TechOne – lower level SFU Surrey courses  
Theatre – BFA, extended minor  
Undergraduate Semester in Dialogue  
Urban Studies – MUrb, certificate, graduate diploma  
Visual Art – BFA, extended minor  
Women’s Studies – BA, minor, extended minor, MA, PhD, certificate, co-op
2005 Fall Semester

September
2 Fri Last day for continuing graduate students to register and pay fees.
5 Mon LABOUR DAY. Offices closed.
6 Tues Classes commence.
12 Mon Deadline for submission of undergraduate grade changes from 2005 summer semester, summer session and intersession.
19 Mon Last day for graduate students to register late, and to add courses.
30 Fri Deadline for application for graduate admission or readmission to the spring semester 2006.

October
6 Thurs Fall Convocation for students who graduated in the summer semester.
7 Fri Fall Convocation for students who graduated in the summer semester.
10 Mon THANKSGIVING DAY. All classes cancelled. Offices closed.
11 Tues Last day for undergraduates to drop courses without special procedures applicable in extenuating circumstances.
21 Fri Deadline for submission of undergraduate application for graduation without a late fee for students completing requirements by the end of the 2005 fall semester.

November
1 Tues Last day for graduate students to drop courses without academic penalty except under special procedures applicable in extenuating circumstances.
11 Fri REMEMBRANCE DAY. All classes cancelled. Offices closed.
30 Wed Last day for graduate students to drop courses under special procedures applicable in extenuating circumstances.

December
5 Mon Classes end.
7 Wed Examination period for undergraduates begins.
12 Mon Final deadline for submission of undergraduate application for graduation (with a late fee) for students completing requirements by the end of the 2005 fall semester.
14 Wed Last date for receipt of grades for graduate students.

Deadline for submission of all graduate degree requirements, including completion of MA Field Examinations and submission of graduate theses to the library.
17 Sat Examination period for undergraduates ends.
23 Fri Grades available on the registration system, as they are received (approximately seven working days after the final examination)
25 Sun CHRISTMAS DAY. Offices closed.
26 Mon BOXING DAY. Offices closed.

2006 Spring Semester

January
1 Sun NEW YEAR’S DAY. Offices closed.
2 Mon In lieu of New Year's Day, all offices closed.
6 Fri Last day for continuing graduate students to register and pay fees.
9 Mon Classes commence.
13 Fri Deadline for undergraduate applications for reactivation to the spring semester.
16 Mon Deadline for submission of application to the professional development program for fall semester, 2006.
20 Fri Last day for graduate students to register late, and to add courses.
31 Tues Last day for receipt of grades deferred from previous semester for graduate students.

February
10 Fri Last day for undergraduates to drop courses except under special procedures applicable in extenuating circumstances.
20 Mon Reading break; classes cancelled.
21 Tues Reading break; classes cancelled.
24 Fri Deadline for submission of undergraduate application for graduation without a late fee, for students completing requirements by the end of the 2006 spring semester.
28 Tues Deadline for application for BC, Canadian and US grade 12 Early Admission students to the 2006 fall semester.

March
7 Tues Last day for graduate students to drop courses without academic penalty except under special procedures applicable in extenuating circumstances.

April
4 Tues Last day for graduate students to drop courses under special procedures applicable in extenuating circumstances.
7 Fri Classes end.
10 Mon Examination period for undergraduates begins.
13 Thurs Final deadline for submission of undergraduate application for graduation (with a late fee) for students completing requirements by the end of the 2006 spring semester.
14 Fri GOOD FRIDAY. Offices closed.
17 Mon EASTER MONDAY. Offices closed.
18 Tues Last day for receipt of grades for graduate students.

May
1 Mon Grades available on the registration system, as they are received (approximately seven working days after the final examination)
3 Fri Deadline for application for undergraduate admission or readmission to the fall semester 2006.
5 Fri Last day for continuing graduate students to register and pay fees.
8 Mon Summer semester and intersession classes commence.

2006 Summer Semester

June
7 Wed Spring convocation.
8 Thurs Spring convocation.
9 Fri Spring convocation.
Start of Each Class Week

### 2005 Fall Semester
- **week 1**: Tuesday, September 6
- **week 2**: Tuesday, September 13
- **week 3**: Tuesday, September 20
- **week 4**: Tuesday, September 27
- **week 5**: Tuesday, October 4 (classes cancelled Monday, October 10 Thanksgiving Day)
- **week 6**: Wednesday, October 12
- **week 7**: Wednesday, October 19
- **week 8**: Wednesday, October 26
- **week 9**: Wednesday, November 2
- **week 10**: Wednesday, November 9 (classes cancelled Friday, November 11 Remembrance Day)
- **week 11**: Thursday, November 17
- **week 12**: Thursday, November 24
- **week 13**: Thursday, December 1
- **end classes**: Monday, December 5
- **undergrad exam period begins**: Wednesday, December 7
- **undergrad exam period ends**: Saturday, December 17

### 2006 Spring Semester
- **week 1**: Monday, January 9
- **week 2**: Monday, January 16
- **week 3**: Monday, January 23
- **week 4**: Monday, January 30
- **week 5**: Monday, February 6
- **week 6**: Monday, February 13 (classes cancelled during mid-semester break February 20, 21)
- **week 7**: Wednesday, February 22
- **week 8**: Wednesday, March 1
- **week 9**: Wednesday, March 8
- **week 10**: Wednesday, March 15
- **week 11**: Wednesday, March 22
- **week 12**: Wednesday, March 29
- **week 13**: Wednesday, April 5 (classes end)
- **undergrad exam period begins**: Friday, April 7
- **undergrad exam period ends**: Monday, April 10

### 2006 Summer Semester
- **week 1**: Monday, May 8
- **week 2**: Monday, May 15
- **week 3**: Tuesday, May 23
- **week 4**: Tuesday, May 30
- **week 5**: Tuesday, June 6
- **week 6**: Tuesday, June 13
- **week 7**: Tuesday, June 20
- **week 8**: Tuesday, June 27 (classes cancelled Monday, July 3 in lieu of Canada Day)
- **week 9**: Wednesday, July 5
- **week 10**: Wednesday, July 12
- **week 11**: Wednesday, July 19
- **week 12**: Wednesday, July 26
- **week 13**: Wednesday, August 2
- **end classes**: Friday, August 4
- **undergrad exam period begins**: Friday, August 7 BC Day
- **undergrad exam period ends**: Tuesday, August 8

Significant Future Dates

(tentative at time of printing)

### 2006 Fall Semester
- Tuesday, September 5 – classes commence
- Thursday, October 5 – fall convocation
- Friday, October 6 – fall convocation
- Monday, December 4 – classes end
- Monday, December 18 – examination period ends

### 2007 Spring Semester
- Tuesday, January 2 – Classes commence
- Friday, March 30 – classes end
- Wednesday, April 18 – examination period ends

### 2007 Summer Semester
- Monday, May 7 – Classes commence
- Wednesday, June 6 – spring convocation
- Thursday, June 7 – spring convocation
- Friday, June 8 – spring convocation
- Friday, August 3 – classes end
- Monday, August 20 – examination period ends
Academic and Campus Services

Academic Computing Services
1001 Strand Hall, 604.291.3234 Tel, 604.291.4242 Fax, www.sfu.ca/acs

Academic Computing Services (ACS) provides on-campus and home access to electronic mail, learning management systems, web conferencing systems, programming environments, and to the Internet in general.

ACS offers SFU computing IDs to all students, faculty and staff. An SFU computing ID is needed to enrol for classes, send and receive e-mail, use the campus labs, and access the library and many other electronic resources.

Web publishing space and general file storage space is provided to all students, faculty and staff. ACS provides specialty software for instructional uses, statistical analysis, web and database programming. A 24-hour help line is available at 604.291.3320 or via help@cs.sfu.ca. In-person help for students is available in the campus labs in the library and at AQ3148, and by phone at 604.291.3930. In-person help for faculty and staff is available from several ACS consultants.

Alumni Association
University Advancement, 2118 Strand Hall, 604.291.4154 Tel, 604.291.4958 Fax, alumni@sfu.ca, www.sfu.ca/alumni

Every person who has completed a degree, certificate or diploma program or PDP is a lifetime member of the Alumni Association, which seeks to strengthen the bond between the University and its graduates.

The association promotes an annual fundraising campaign for the University, offers benefits and services to members, and supports alumni group activities and career development programs.

The Office of University Advancement maintains alumni records, links alumni and University departments, and provides administrative support.

Archives and Records Management
0400 Maggie Benston Student Services Centre, 604.291.3281 Tel, 604.291.4047 Fax, archives@sfu.ca, www.sfu.ca/archives

Archives' mandate is to acquire original archival materials that document all programs and activities of the University or that enhance its teaching and research programs. The University archives acquires three major categories of materials:

- official records of the University including those created by the board of governors, senate, University committees, faculties, departments and administrative offices
- materials documenting the wider University community. These records include private papers of groups such as the Faculty Association, Simon Fraser Student Society, University labor organizations and the private papers of prominent individual faculty, staff and students
- private historical research collections. These include the Association of Canadian Publishers (ACP), John Howard Society (JHS), W.A.C. Bennett and numerous collections relating to women's issues.

Archives also holds the non-circulating original copies of all theses and dissertations approved by the University.

The University's archives are a multimedia collection including film, video and sound recordings, maps, plans and architectural drawings, documentary art, and photographs.

Services to Researchers
The reference area is equipped with audio and video equipment. Arrangements can be made for viewing films. Reproduction requests for photocopies and photographic copy prints are accommodated whenever possible. Finding aids to various collections are available in hard copy or on the Archives Web site. Information is available about archival collections at other repositories.

Services to the Institution
To help fulfill its mandate, Archives administers a records management program for the University. The department also operates the University Records Centre (URC), providing temporary storage for official, semi-active records of the University. Archives staff provide consulting and training support to campus offices on record-keeping policy, practices, records retention and disposal. The department is also responsible for co-ordinating copyright compliance and administering the University's access to information and privacy program, and responding to all formal access requests submitted under the Freedom of Information and Protection of Privacy Act.

Service Hours
Archives is open for researchers 9 am – 12:30 pm and 1:30 pm – 4 pm, Monday to Friday.

Art Gallery
3004 Academic Quadrangle, 604.291.4266 Tel, 604.291.3029 Fax, www.sfu.ca/artgallery, Monday to Friday, 10 am – 4 pm, free admission

The SFU Gallery has over 4,000 works of art, of which over 1,000 are on permanent display throughout the campus. There are three exhibit spaces, including the main gallery in the Academic Quadrangle, the Bennett Gallery on the third floor of the W.A.C. Bennett Library, and the Tech Gallery at the Harbour Centre site.

The gallery exhibits many different international, national and local artists, and each year SFU's visual arts students showcase their work. The gallery also hosts a juried exhibition annually that is open to the entire SFU community, including students, alumni, staff and faculty.

Every new exhibition at the main gallery starts with an opening celebration that may include artist talks, music, prizes, food and drinks. Everyone is welcome to attend these informative, fun and entertaining events. The gallery also works with local schools and general interest groups to provide curriculum based talks and programming.

An innovative art lending program allows staff and faculty to borrow art to enhance their work places. The SFU Gallery also maintains files and a database about contemporary Canadian artists that is available to all for research purposes. Please check the website, call, or drop by the gallery for more information on upcoming exhibits, openings, the art lending program, or other enquiries.

Bookstore
Maggie Benston Student Services Centre, 604.291.3656 Tel, 604.291.3401 Fax, Harbour Centre store 604.291.5048, www.sfu.ca/bookstore

The Simon Fraser University Bookstore, which occupies three levels in the Maggie Benston Student Services Centre, carries new and used books, stationery, clothing and giftware. Book selection includes general interest books, as well as textbooks for courses offered at the Burnaby campus and in the distance education program. General interest books are located on the upper floor and include a wide selection of reference books, study guides, literature, travel guides, cookbooks and other subjects. The bookstore also carries an extensive selection of stationery, university crested sportswear and memorabilia, and unique gift items.

The bookstore has a secondary location at the Harbour Centre site. Textbooks for courses offered at Harbour Centre are only available at the downtown bookstore. For hours and information, call the number listed above, or visit our web site.

Campus Security
Patrol Operations/Information Centre
01 Transportation Centre, 604.291.3100 (24 hours), 604.291.3469 Fax, security@sfu.ca, www.sfu.ca/security

Campus security patrol, emergency response, campus information, safe walk program, complaint investigation and referral.

Parking Services
3110 West Mall Centre, parking@sfu.ca, 604.291.5983 Fax, 604.291.4577 information telephone line

All parking lots on campus, with the exception of visitor parking, are reserved for valid permit holders only. Students, faculty and staff without valid permits, as well as visitors to the Burnaby campus are required to park in one of the four designated visitor parking lots (rates subject to change).

<table>
<thead>
<tr>
<th>Parking Lot</th>
<th>Price per Semester</th>
<th>Eligible</th>
</tr>
</thead>
<tbody>
<tr>
<td>B lot search lot</td>
<td>$99.75</td>
<td>undergraduate and graduate students, faculty and staff</td>
</tr>
<tr>
<td>Convocation Mall and West Mall reserved space</td>
<td>$274.05</td>
<td>undergraduate and graduate students, faculty and staff</td>
</tr>
<tr>
<td>visitor parking</td>
<td>$2.00 per hour, $10.00 per day</td>
<td>undergraduate and graduate students, faculty, staff and visitors</td>
</tr>
</tbody>
</table>

Simon Fraser University 2005 • 2006
Undergraduate students may purchase a permit for B lot, Convocation Mall or West mall as follows:

**B lot (search lot)**

**Parking Lottery**

B lot parking permits are available through the parking lottery held prior to the fall and spring semesters. Available spaces are allocated at random to students who enter the lottery. Students may enter the lottery through the Parking Services web site at www.sfu.ca/security/Parking, or in person at the Parking Services office. You must have an SFU student number to enter as well as a current e-mail account.

**Open Sale**

There is an open sale on April 22. The number of open sale permits is based on availability and is sold on a first-come, first-served basis.

**Convocation Mall and West Mall (reserved space)**

Undergraduate students may also purchase a permit for the Convocation and West Mall Reserved lots, when available. If available, permits are purchased through an open sale, which is held approximately two weeks prior to the beginning of each semester. Please visit the Parking Services web site for a schedule of open sale dates.

Once these permits are issued, they must be renewed each semester to maintain status. For more detailed information, visit the Parking Services web site at www.sfu.ca/security/Parking.

**Centre for Students with Disabilities**

1250 Maggie Benston Student Services Centre, 604.291.3112 Tel, 604.291.5457 TTY, www.sfu.ca/csd

The Centre for Students with Disabilities was established to improve accessibility at Simon Fraser University by developing and updating University policies, procedures and programs. The centre is also responsible for providing direct services to students with a disability. These services include: assistance with note-taking; tutor support; access to adaptive technology; support for exam modifications; general advocacy, etc. Students requiring any of these services are expected to supply current documentation at their own expense and should contact the centre as soon as possible, preferably three months prior to the start of a semester.

The centre has an equipment lab of computers with access software (e.g. magnification, voice-to-text), a scanner, a Braille printer and a CCTV (closed circuit television for text or graphic enlargement). Computers in the lab are on adjustable tables.

The Centre for Students with Disabilities also works with other University departments to ensure appropriate services are in place. Information on accessible on-campus housing and accessible parking is available.

Course materials in alternate formats are also available for students through interlibrary loans in the Bennett Library. Due to possible delays, contact the centre at least three months prior to the start of the semester.

For more information, contact the Centre Monday to Friday, 9am to 4pm.

**Childcare Services**

Children's Centre, West Side of Campus, 604.291.4569 Tel, 604.291.3058 Fax, www.sfu.ca/childcare-society

SFU Childcare Society has 11 programs offering quality childcare to children of students, staff and faculty. Our unique world-class facility provides full and part time care to over 250 children aged 3 months to 12 years. The school aged children are transported off campus to attend two local Burnaby schools.

All childcare staff are fully qualified early childhood educators and provide children with a caring, enriched, developmentally balanced program. Parent participation at the program and board levels is an important part of our operations.

Fees are payable monthly. Childcare bursaries are available to eligible students and staff. The Ministry for Children and Families also subsidizes childcare fees for those parents qualifying under their financial need criteria. For information and/or a visit, call the Childcare office 8 am to 5 pm at 604.291.4569.

**CJSF 90.1 FM Radio**

216 Transportation Centre, 604.291.3727 Tel, 604.291.3695 Fax

CJSF 90.1 FM is Simon Fraser University's campus/community radio station and is funded by SFU students. The station's mandate is to provide its listeners with community with programming content rarely available from the mainstream media. CJSF offers a wide variety of non-commercial music from all genres as well as special interest spoken word programming.

The station airs public service announcements from campus groups about events and issues of interest to the campus and off campus community.

CJSF is currently operated by over 150 student and community volunteers. New volunteers are always welcome. Orientations for new volunteers are held regularly. See our website at www.cjsf.bc.ca for orientation times. CJSF offers a wide variety of interesting volunteer opportunities.

You can listen to CJSF on 90.1 FM, 93.9 FM on cable, and on the Internet via our website at www.cjsf.bc.ca to find out more about your campus radio station, call us or drop by our studios.

**School for the Contemporary Arts**

604.291.3363 Tel, 604.291.5907 Fax, www.sfu.ca/sca

Information on the School for the Contemporary Arts’ teaching programs can be found in the relevant undergraduate and graduate Faculty of Arts and Social Sciences sections. The school also sponsors the following services for the campus community.

**Public Events**

The School for the Contemporary Arts presents a free performance, film screening, concert or artist’s demonstration in the SFU Theatre every Thursday at 12:30 pm during fall and spring semesters. In addition, more than 100 performances and visual art shows are scheduled throughout the year in the SFU Theatre, Studio II, the Martin Bartlett Performance Space at Alexander Centre downtown, and the studios of the school. Programming for both the noon series and evening events features a mix of professional touring artists and students of the school. For information, contact the SFU Theatre box office at 604.291.3514.

**Professional Development Offerings**

Praxis Film Development Workshop, 604.291.3100, offers a resource centre, intensive workshops, public seminars, and courses on a broad range of film-related topics.

**Dining Services**

Administrative Office, Academic Quadrangle 2028, 604.291.4481 Tel, foodservices@sfu.ca

Chartwells Dining Services at Simon Fraser University provides a variety of convenient food outlets offering well-balanced, nutritional meals, fast food services, catering for groups and convenience store shopping. The Meal Plan allows students, faculty and staff to purchase meals on a prepaid account from any of the following dining locations throughout the year. The Meal Card Program works just like a debit card! You prepay by depositing a chosen dollar amount into your Chartwells Meal Plan Account. For further details and information please stop by our office or refer to our “Dining Plan” brochure.

**AQ Concours**

Alexander MacKenzie Café

Morning Editions—special breakfasts, Culinary Table—and meat and vegetarian entrées, Origins—Baja Flats or Mongolian Grill, Menutainment—wraps/taco salad/pita’s, Fresh Grille—burgers/combos/weekly burger & sandwich specials, Trattoria—pizza/stromboli/calzone/p/zoli/tarttini/panzarotti, Double Treat Bakery—freshly baked assorted pastries, Beverages—Starbucks, Ritazza and specialty coffee, tea and an assortment of cold beverages. Hot summer day? A variety of Nestlë’s ice cream is also available. Sandwich Central—ciabattas/paininis/custom made sandwiches and look for our “feature of the week” with a variety of fillings and breads. Garden Emporium—a sandwich without bread is a salad—custom made-order to order. Look for our weekly special feature salad. On The Go—premade sandwiches/subs/kaisers/salads/sushi.

**AQ Main Mall Locations 2000 Level**

Simon C’s Convenience Store

Our convenience store offers “On the Go”, Double Treat Bakery, Starbucks™ Gourmet Coffee, fruit, sandwiches, salads, snacks, ice-cream, beverages, groceries, stamps, greeting cards, candy, health and beauty aids, cigarettes, newspapers, magazines and more. Located in the AQ Building “James Douglas Room”.

**Triple O’s by White Spot™**

“ Legendary” hamburgers, freshout fries, hot dogs, chicken burgers, chicken strips, milkshakes, breakfast and more!

** Impressions Catering**

Whatever the occasion, give us a call! We specialize in catering to conferences, office groups, clubs, business meetings, or your special event. Phone our Catering Manager at 604.291.4510 to make arrangements for your event or drop by AQ 2028 to pick up our Catering Brochure.

Fax your order to 604.291.5661 or email catering@sfu.ca

**West Mall Complex 2000 Level**

Raven’s Bistro

At our Bistro you can enjoy Starbucks™ Regular and Gourmet coffees, hot or on ice. The Bistro also offers daily features from our Fresh Grill, entrées, pastas, salads, gourmet sandwiches, and fresh made pizza by the slice and a variety of Double Treat Bakery items.

Raven’s Café

Raven’s offers the best view on campus as well as outdoor seating. The menu includes meat and vegetarian choices of entrées, soups, pizza and pasta, hot wraps, gourmet sandwiches, paninis, smoothies and more.

**Diamond Alumni Centre**

Lunch reservations: 604.291.4794, duc@sfu.ca, www.sfu.ca/duc

The Diamond Alumni Centre, located on the north slope of Burnaby Mountain, is in the absolute idyllic...
setting. This beautiful facility is further enhanced by natural timbers, stone fireplaces and abundant greenery to complement the panoramic view of the North Shore mountains, Deep Cove and Indian Arm. Our provisions and gourmet food ensure that your experience with us will always be special and memorable. We offer catering for gatherings of up to 400 people for stand-up receptions and special events. We are able to accommodate up to 200 people seated for special events including business meetings, dinners, retirement parties and wedding receptions.

The Administration and Catering Office is open 8:00am – 4:30pm Monday to Friday, 604.291.4795 or 604.291.4796 Tel, 604.291.4795 Fax

First Nations Student Centre
1500 Maggie Benston Student Services Centre, 604.291.3565/5663 Tel, 604.291.5682 Fax, Monday – Friday, 8:30 am – 4:30 pm

The centre offers culturally-relevant, responsive, holistic student support services and programs to self-identified Aboriginal (First Nations, Métis, Inuit) students. It develops academic support programs including student orientation, graduation activities, Aboriginal speakers and events. It provides referrals to and information concerning university and Aboriginal community resources. Services include band/agency liaison, fax services, job and event postings, and information on awards and funding. A First Nations academic advisor can help with academic program planning, including application and registration processes, course selection and course withdrawals, and with appeals and retroactive withdrawals. Please call 604.291.4055.

In the First Nations Student Association lounge, located in TC 3108, students can meet and study in a relaxed atmosphere 24 hours a day.

George and Ida Halpern Centre
Halpern Centre, 604.291.4910 Tel, 604.291.3420 Fax

The Halpern Centre was donated to the University as a setting for cultural and intellectual endeavors which are not part of the scheduled University credit offerings. The centre is a venue for events of the highest scholarly, social and cultural value, including lectures by distinguished visitors, discussion groups, seminars, learned conferences, dissertation defences, art exhibits, musical performances, etc. The centre may be booked by University departments and community groups whose activities are consistent with the centre’s stated purposes. There is no rental fee for University-sponsored events. Space bookings, reserved by a University individual, require sponsorship of the individual’s department or, in the case of student clubs or unions, through the Simon Fraser Student Society.

Health, Counselling and Career Centre (HCCC)
0300 Maggie Benston Student Services Centre, 604.291.4112 Tel, 604.291.5888 Fax, hccc_admin@sfu.ca, www.sfu.ca/hccc

For more information regarding any of our services, check out our website at www.sfu.ca/hccc.

Our Mission
We exist to promote mind-body wellness to enable students to realize full potential and achieve academic, personal and career goals. Our services are responsive, professional and foster self-reliance. We work as an integrated team and value innovation and partnerships with students.

Key services include medical services, health promotion, physiotherapy, personal counselling, learning skills, career services, and outreach.

Medical Services
0101 Maggie Benston Student Services Centre, 604.291.4615 Tel, health@sfu.ca, medical emergencies: 604.291.4500
300 Harbour Centre site, 604.520.5200 Tel, health_van@sfu.ca, medical emergencies (via Security): 604.522.5252
Physicians after regular hours: 604.522.2311, 6 pm – 7 am, Monday – Friday, weekends and holidays

Get all of your medical needs met by visiting one of HCCC’s doctors or nurses. All provided services are strictly confidential. For students these services include primary health care, urgent care, vaccinations, allergy shots, travel medication, birth control, pregnancy testing, sexually transmitted infection screening, and minor procedures, just to name a few. Urgent medical care is also available for SFU staff and faculty. A BC Biomedical Lab is located in HCCC at SFU’s Burnaby Campus and is open daily. Book an appointment or walk-in today!

Health Promotion
0300 Maggie Benston Student Services Centre, 604.291-4655 Tel, health_promo@sfu.ca Email
The health promotion and prevention team at HCCC works hard to help students make informed health decisions. Ultimately, the team hopes to build a balanced, accepting, and healthy campus community here at SFU. To do this the HCCC team of health counsellors and peer educators offer an on-going series of free healthy living workshops, training and special events, as well as health education materials, to student groups across campus. Come join HCCC in cultivating a healthy environment for us all.

Physiotherapy Clinic
070 Chancellor Gymnasium Centre, 604.291.3284 Tel, hccc_physio@sfu.ca
Do you have aches, pains or injury? Our staff physiotherapist has the expertise and knowledge to provide you the best treatment, rehabilitation and preventative programs to return you to an active lifestyle. Services are available to all members of the SFU community including UniverCity. No doctor’s referral is required unless you have a WCB or ICBC claim. The HCCC physiotherapy clinic is located within the Athletic Complex at SFU’s Burnaby Campus. Book an appointment to come see a therapist today!

Personal Counselling
0101 Maggie Benston Student Services Centre, 604.291.4615 Tel, health@sfu.ca
At HCCC we recognize the unique pressure and stress students endure on a day to day basis. Our team of counsellors are here to help you manage the challenges of university life, and reach your academic as well as personal goals with free short-term counseling, group discussions, and workshops. All discussions are strictly confidential. Same day appointments are available for initial visits and for students in crisis. If you ever want to talk HCCC is here to listen.

Learning Skills Services
0300 Maggie Benston Student Services Centre, 604.291.4605 Tel, learning_skills@sfu.ca
The learning skills team at HCCC believes all students can excel given the proper tools. Our team of counsellors and peer educators are here to help you improve your writing, reading and study skills with free one-on-one learning skill education, counselling, group session discussions, and workshops. We encourage you to drop by MBC 0300 to review our extensive career resource library. Let HCCC help you reach your academic goals.

Career Services
0300 Maggie Benston Student Services Centre, 604.291.3106 Tel, career_services@sfu.ca
Wishing to develop your transition from SFU to the workforce? HCCC’s multidisciplinary team of career advisors, counsellors, and peer educators can support students and recent graduates throughout this transition with free one-on-one career sessions, on-line resources, mock interviews, workshops and special events. We also encourage you to drop by MBC 0300 to review our extensive career resource library. Kick start your career with HCCC.

SFU Nightline
604.857.7148 evenings, weekends and holidays

SFU Nightline offers a telephone crisis intervention service, providing peer counselling and support, information and referrals after regular HCCC office hours. Student volunteers undergo extensive training using a crisis-intervention model. When you call Nightline, an answering service will answer and patch you through to a student volunteer within 10 minutes. For more information, visit our web site at www.sfu.ca/hccc.

Student Volunteers / Leadership
604.291.4678 Tel, student_leaderhip@sfu.ca

Peer educators are registered student volunteers who deliver outreach programs and provide assistance with student health issues, academic performance, career development and personal issues. They work under the supervision of HCCC staff to organize special events on campus, conduct educational workshops and small group discussions and provide one-on-one consultation in all areas of HCCC.

If you are interested in becoming a peer educator, applications are available in MBC 0300 and are accepted in spring semester. Extensive training is provided each year in late August.

HCCC to you
0300 Maggie Benston Student Services Centre, 604.291-4692 Tel, outreach_coordinator@sfu.ca

The services of HCCC extend beyond the walls of the centre into the campus community. Many of the services we provide in-house can also be delivered to the location you choose on campus. If you are interested in having our professional staff or peer educators do a presentation, workshop or outreach session please contact us!

Human Rights Office
3045 Academic Quadrangle, 604.291.4446 Tel, 604.291.5468 Fax, betaylor@sfu.ca, www.sfu.ca/hro

On April 7, 2003 the SFU Board of Governors approved changes to GP 18, the Harassment Policy, which expanded the scope of the policy to include discrimination as a proscribed behavior. As such, the Human Rights Policy responds to the University’s obligations under the BC Human Rights Code to provide a discrimination and harassment free environment for the students, faculty and employees of this University. The objectives of the expanded policy are to educate the University community about human rights issues and to provide procedures by which complaints of discrimination and harassment can be addressed, mediated and resolved.
Students are warmly invited to visit our drop-in centre Fraser University. Our production staff provides the advancement of teaching and learning at Simon service in media and communications technology for 604.291.4900 Fax, www.sfu.ca/lidc Media Production Group, LIDC

use. Lectures can be accessed on the web at proper use of equipment. When requested by faculty, equipment for classroom projects is available for loan The Classroom Technology Assistance Centre has 2622 West Mall Centre, 604.291.5538 Tel, Monday to 10 pm, Friday 8 am – 4:30 pm

The principles of natural justice and impartiality govern the complaint process. The co-ordinator can offer advice and assistance to people who wish to deal with situations on their own or mediation services can also be provided. In exceptional circumstances, formal complaints are referred to an external investigator who is an experienced administrative lawyer.

For more information about the Human Rights Policy, including the definition of discrimination and harassment and the types of harassment covered, please visit our website.

Interfaith/Chaplaincy Centre 1480 Maggie Benston Student Services Centre, 604.291.3180 Tel, students.sfu.ca/interfaith

The University is served by an ecumenical and interfaith chaplaincy comprising eight chaplains representing the Christian faith and other religions. They provide a wide spectrum of spiritual and religious services, and they are prepared to help anyone including students, staff and faculty.

For special events, weekly services and meetings, see Simon Fraser News or call 604.291.3180. Students are warmly invited to visit our drop-in centre and reading room, 9:30 am – 3 pm, Monday – Friday.

Learning and Instructional Development Centre (LIDC) 7560 Education Building, 604.291.3910 Tel, 604.291.4900 Fax, www.sfu.ca/lidc, Monday to Thursday, 8:30 am – 4:30 pm, Friday 8:30 am – noon, 1 – 4:30 pm.

Our mission is to help create an enriched academic environment at SFU. This will be accomplished by supporting and promoting effective teaching, stimulating and conducting research and scholarly activity, assisting in the integration of instructional technologies, and providing media services and classroom support to the university community.

Classroom Technology Assistance, LIDC P9301 Shrum Science Centre, 604.291.4828 Tel, 604.291.4616 Fax, Monday to Thursday, 8 am – 10 pm, Friday 8 am – 4:30 pm

2622 West Mall Centre, 604.291.5538 Tel, Monday to Thursday, 8 am – 8 pm, Friday 8 am – 4:30 pm

The Classroom Technology Assistance Centre has two locations. A wide variety of audio, visual and computer equipment for classroom projects is available for loan to students as well as advice and instruction in the proper use of equipment. When requested by faculty, audio recordings of lectures are produced for student use. Lectures can be accessed on the web at www.sfu.ca/lectures.

Media Production Group, LIDC 7560 Education Building, 604.291.3910 Tel, 604.291.4900 Fax, www.sfu.ca/lidc

Our function and purpose is to provide leadership and service in media and communications technology for the advancement of teaching and learning at Simon Fraser University. Our production staff provides comprehensive media capability in both conventional and digital formats using the most current technology. We find creative solutions to your problems, we offer guidance and support through consultation and are always pleased to assist you with your projects. Visit our web site to see what we can do for you.

Teaching Enhancement Services, LIDC 7560 Education Building, 604.291.3910, 604.291.4900

This group provides a wide variety of services to faculty and other instructional staff, including instructional development and support: delivering workshops to various groups assisting with the design, development and evaluation of teaching assisting teachers with their face-to-face teaching supporting the integration of technology into courses providing a consultation program on the preparation of teaching portfolios, teaching evaluations, and student assessment methods helping to develop a resource centre on teaching, learning and technology in teaching Teaching Enhancement Services also co-ordinates and organizes instructional development and educational technology programs (workshops, seminars, lecture series, symposia and conferences) and services (consultations, courses, and resource library) for SFU’s academic community to enhance the quality of teaching and learning at the University. Some programs include: Certificate in Web-based Instruction Certificate Program in University Teaching and Learning annual fall and spring semester TA/TFM Days Instructional Skills Workshop ISW Facilitator Development Workshop Annual Summer E-learning Institute Diversity Awareness Workshop Voice Projection Workshop Teaching and Learning with Technology

Technical Services, LIDC 7528 Education Building, 604.291.4755 Tel, 604.291.3199 Fax

This technical group provides support to keep SFU’s classrooms contemporary as possible. Expertise in research, design, installation, and service is offered as well as advice to staff, students and special interest groups about lecture theatre operations. Other services include sales of audio visual materials, the dissemination of Shaw and satellite over the in-house CATV system, and video conferencing. A broad range of experience is offered to those wishing to purchase or evaluate equipment, plan system installations, or learn about new technologies.

Library Services Samuel and Frances Belzberg Library SFU Vancouver, Harbour Centre site, 604.291.5050 Tel, 604.291.5052 Fax, www.harbour.sfu.ca/belzberg

The Belzberg Library has been in operation since January 1989 as a branch library serving SFU Vancouver students and faculty. It provides full services including reference assistance, borrowing, access to course reserve items, and materials requests from the W.A.C. Bennett Library and SFU Surrey Library. On-line services, including the library catalogue, full text databases, electronic journals, and access to Web sources, form an essential element of this ‘electronic’ library.

The library collection supports the courses and programs offered downtown. It currently consists of over 8,000 books and several hundred journal titles as well as microfilm, fiche, and digital collections. The Samuel and Frances Belzberg Library was developed through the generous donation of the Belzberg family.

Library hours: Belzberg Library service is available Monday – Thursday, 10 am – 9 pm; Friday, 10 am – 7 pm; and Saturday, 10 am – 5 pm.


Collections The library has over 2.4 million books and subscriptions to over 20,000 journals, of which over 15,000 are online. The Library of Congress classified books are arranged on three floors as follows: A-HS on the 4th; HT-QE on the 5th; and QH-Z on the 6th. Periodicals are housed on the 6th floor. Designated quiet study carrels are located on the 4th, 5th and 6th floors, with a silent study room on the 5th floor. Group study rooms are located on the 2nd floor and may be reserved through the library web site.

Strong collections are available to undergraduate and graduate students in all disciplines taught at SFU. The library website provides access to our collections for SFU researchers on or off campus through the library catalogue, indexes to journals, electronic journals, and other digital resources. Special Collections include the contemporary literature collection, of interest to the student of avant-garde poetry, the finest William Wordsworth collection in Canada, the Canadian editorial cartoon collection, the Wosk-McDonald Aldine collection, and significant manuscript and archival collections. The curriculum collection contains curriculum guides and suggested readings prescribed by the Department of Education for use in BC schools. A growing collection of sound recordings, scores, slides, videos and films is available in the media collection. The maps/data/gis unit on the 7th floor provides access to computer-readable files of statistical and other data, such as survey, census and GIS files, as well as over 80,000 maps.

Services Facilities offered by the library include the Alumni Information Commons on the third floor which has PCs and Mac computers, laser printers, color printers, scanners and application software such as Microsoft Word. Also available to students are microform readers and printers, tape listening facilities, and photocopiers. A laptop lending program is available and laptop carrels are available on the second and sixth floors, with wireless access on the second to the fifth floors. The library, in consultation with the SFU Centre for Students with Disabilities, provides assistance to students with disabilities through facilities such as reserved study rooms and adaptive technology.

Information Librarians and Alumni Information Commons Technicians are available to assist users at the third floor Alumni Information Commons help desk, Monday to Thursday from 9 am to 8 pm, Friday 9 am to 6 pm, and Saturday and Sunday from 10 am to 6 pm. Off-campus users can reach a librarian online via the Ask Us live chat reference service, Monday – Thursday, 1 – 8 pm; Friday – Sunday, 1 – 5 pm, or they can send a question by email to libask@sfu.ca.

Service hours are reduced during the summer semester, on holidays and during semester breaks.
Access to research skills classes are offered at the start of each semester to provide a hands-on introduction to effective research techniques. Liaison librarians provide customized, course-specific research instruction at the request of faculty.

Loans
Your SFU student ID card is also your library card, and is required to borrow books. The standard loan period for undergraduates is three weeks for high-demand items and semester loans for lower demand items. Reserves collection materials are assigned short loan periods two hours to one week to increase availability in specific courses. Lecture tapes for selected courses are accessible digitally.

Faculty and students are eligible for a free library card from other Canadian university libraries. Document delivery services provide access to materials not held at SFU through agreements with BC and other post-secondary libraries, as well as providing delivery of SFU's collections to Distance Education students.

HOURS
Monday to Thursday 8 am – 11:45 pm; Friday 8 am – 8 pm; Saturday and Sunday 10 am – 10 pm. Normally, the building closes during statutory holidays. For detailed information about service hours, visit the library web site at www.lib.sfu.ca/about/hours.htm

Simon Fraser University Surrey Library
SFU Surrey Library, 604.288.7411 Tel, 604.288.7420 Fax, www.lib.sfu.ca/about/surrey/
The Simon Fraser University Surrey Library's mission is to support teaching, learning and research at the Simon Fraser University Surrey campus. A full range of services, including reference, liaison, instruction, circulation, course reserves and document delivery are offered. The library circulates digital camcorders and other media equipment for use in class or in production of assignments.

In keeping with the digital nature of the campus, the library collection focuses on electronic resources and media. The collection includes over 6,000 books, 9,000 e-books, journals, CDs, CD-ROMs, videos, DVDs and computer games. On site collections support the Surrey programs. Students also have access to the other two SFU libraries, including the full Burnaby collection of more than 2 million items.

Due to security restrictions, access to the Simon Fraser University Surrey campus and library is restricted. For information about hours and access to the library, call 604.268.7411, or see www.lib.sfu.ca/about/surrey/

Media and Public Relations Office
2200 Strand Hall, 604.291.3039 Fax, www.sfu.ca/mediapr
Media and Public Relations Office provides media relations and information dissemination. We publicize campus events and achievements, offer media liaison, publish Simon Fraser University News and maintain information on the University's website. News and story ideas are always welcome.

Microcomputer Store
8961 Cornerstone Mews, 604.291.3098 Tel, 604.291.4783 Fax, www.sfu.ca/microstore, micro_store@sfu.ca
The Microcomputer Store sells educationally-priced computer hardware, software, supplies and accessories to current SFU students, staff and faculty.

Educational discounts are available on a wide range of software, including Adobe, Borland, Corel, FileMaker, Macromedia, Microsoft and Symantec.

Apple, Epson, IBM, Lexmark, Panasonic and others. We offer educational discounts on computer hardware products and can help you choose the right products to get your university work done. Our staff are not on commission, so we offer unbiased advice.

The store stocks software, printer ink cartridges and toner, memory, media, modems, paper, cables and accessories for your convenience. We also have demonstration computers, monitors and printers for you to evaluate. Our service shop can upgrade or repair most computer equipment.

Store hours are Monday – Friday, 10 am – 4:30 pm.

Museum of Archaeology and Ethnology

The museum exhibits and collects objects from around the world, with a specific emphasis on the archaeology and ethnology of the First Nations of British Columbia, especially the Northwest coast. Virtual exhibits on a wide variety of topics can be found at the above Internet address.

Ombuds Office
2205 Maggie Benston Student Services Centre, 604.291.4563 Tel, 604.291.3899 Fax, ombudsoffice@sfu.ca
Celebrating 40 years of service, the Ombuds Office is dedicated to promoting fairness for members of the University community. The Ombudsperson provides information about existing review or appeal procedures, and advises on, and assists with, informal complaint resolution and problem-solving processes. The Ombudsperson may also inquire into the administration of University practices, procedures, processes and policies. The Ombuds Office is funded by the Simon Fraser Student Society.

Centre for Online and Distance Education
1300 West Mall Centre, 604.291.3524 Tel, 604.291.4964 Fax, toll free within BC 1.800.663.1411, www.sfu.ca/cde
Courses offered through the Centre for Online and Distance Education provide an alternative to traditional classroom learning for those who wish to continue their formal education but cannot attend scheduled classes on campus or at an off campus location. Since 1975, when Simon Fraser University introduced its first five distance education courses to 55 students, the program has grown to over 13,500 course enrolments a year in over 130 credit courses. All courses carry full university credit and run parallel to the on-campus offerings. Students may complete many certificate, diploma and degree programs entirely by distance education. Or students may take a combination of distance education, evening or day courses to fulfill their academic requirements.

Increasingly, students enrolled in courses offered through the centre benefit from the use of technology designed to meet specific learning needs. Depending on the courses, students will receive material either online and/or in print. Other course related components (e.g. CDs and/or videotapes, lab materials, equipment) are also prepared by and distributed through the centre.

Each course is assigned a tutor marker who is responsible for grading assignments and assisting students with course work. All have scheduled office hours for telephone and/or email consultation.

The Peak Newspaper
2901 Maggie Benston Student Services Centre, 604.291.4560, www.peak.sfu.ca
Published weekly each semester, The Peak is Simon Fraser University’s independent student newspaper. Students may place free personal classified ads, sit on the Board of Directors, vote, volunteer, work as an editor or write a letter to share opinions with the university community. In addition to being a valuable source of information, The Peak provides jobs and experience for other SFU students, maintains an archive, a classroom and web site, and is a member of Canadian University Press.

Recreation & Athletics
110 Chancellor’s Gymnasium Complex, 604.291.3675 Tel, 604.291.3425 Fax, www.sfu.ca/recreation
Recreation & Athletics provides the campus community with a variety of physical activities from recreation to varsity and everything in between. The Chancellor’s Gymnasium complex includes a fitness centre (Piper’s Gym), weight room (The Bog), six lane 25 metre pool, diving pool, combative room, squash/raquetball courts, outdoor tennis courts, 400 metre outdoor track, an artificial turf field, two grass fields, saunas, locker facilities, two gymnasium and a physiotherapy clinic. A valid recreation membership is required to use all facilities. Students receive a membership as part of their student fees provided they agree to and complete a Release of Liability, Waiver of Claims, Assumption of Risks and Indemnity Agreement. Students may obtain a membership by visiting the Recreation Service Centre on the main floor of the complex between 8:30 am and 4 pm Monday through Friday.

Athletics
Since its 1965 inception, SFU's athletics program enriches Canada with a winning tradition second to none. The Clan demonstrated its excellence in the 2003-2004 season by securing a sixth consecutive Sears Director's Cup. The cup is awarded to the top athletic program within the National Association of Intercollegiate Athletics (NAIA).

Simon Fraser University, one of the few Canadian programs to compete in the NAIA and Canadian InterUniversity Sport (CIS), offers athletic financial awards to its student athletes along with excellent competitive opportunities. Varsity sports programs for women include basketball, cross country, golf, soccer, softball, wrestling, swimming & diving, track and field, and volleyball. For men, our varsity sports include cross country, golf, basketball, soccer, football, swimming &diving, track and field, and wrestling.

For more information, see www.sfu.ca/athletics.

Recreational Programming
Recreation programming meets all levels of aspiration and will enhance skill development. The ACTIVE Magazine is published and distributed in the fall and spring throughout the campus and is available outside the Recreation Service Centre located on the first floor of Chancellor’s Gymnasium Complex (room 110) or on the Recreation website.

Aquatics — on-going courses are offered in children’s Red Cross lessons, adult learn-to-swim lessons, lap swimming, deep-water running, and advanced leadership courses.

Fitness — multi-level classes cater to a wide variety of individual needs and include specialty classes such as...
as aquafit, hi-low, step and personal training consultations. Instruction is also offered for CPR, first aid and instructor training.

Non-credit instruction — classes offer sequential instruction of up to 12 weeks in a large number of activities suited to varying levels of skill or fitness. Offerings include instruction in combatives, dance, racquet sports, scuba, yoga and several outdoor recreational activities.

Intramural sport — intramural activities are offered to all individuals with a valid gym membership. Participation varies from involvement in regular league schedules to special events and tournaments.

Student sport clubs — a variety of clubs are sponsored by Recreational Services and Athletics. Competitive clubs compete in local leagues and tournaments (some at an elite level) and non-competitive clubs are available for groups with common interests.

For more information, see www.sfu.ca/recreation.

Residence and Housing Office

On Campus housing for traditional residences, student townhouses, apartments: Residence Administration Building, 604.291.4201 Tel, 604.291.5903 Fax, www.sfu.ca/ccs/residences/index.html

Information for on-campus residences may be obtained from the Summit brochure, the Internet address shown above, or the residence office.

Residences and Facilities

Resident students are assigned to buildings based on age and academic standing. Younger students who have recently graduated from secondary school are generally assigned to the new residences with required meal plans. Students who have previously lived in residence or who are college transfers may request to live in Shell House or McTaggart-Cowan Hall. Townhouses are assigned to upper year students and mature students.

There are several residences on campus.

• New traditional co-ed residences with required meal plans accommodate 737 students
• Madge Hogarth House, a women’s traditional residence, accommodates 65 students
• Shell House, a traditional co-ed residence, accommodates 130 students
• McTaggart-Cowan Hall, a traditional co-ed residence, accommodates 200 students.
• Hamilton Hall, a co-ed residence, accommodates 104 graduate students in single, fully furnished studio suites
• A townhouse complex accommodates 396 single students in four bedroom fully furnished townhouses
• Louis Riel House, a family apartment building containing 210 one and two bedroom units, are furnished with a stove and refrigerator. Apartments are reserved for couples, families with children, and single parent families.

• In traditional residences, accommodations are fully furnished and are equipped with refrigerators. Students share common kitchens in Madge Hogarth House, Shell House, and McTaggart-Cowan Hall. McTaggart-Cowan Hall, Hamilton Hall, the new residences, and Louis Riel House offer rooms suitable for students with disabilities.

Application

All new full time SFU undergraduate students applying for single student housing for fall semesters only are guaranteed single student housing provided their applications are received no later than February 28 and all applicable SFU deadlines and eligibility requirements are met. For all others, residence accommodation is not guaranteed.

Applications for Louis Riel House are accepted year-round. Traditional residences, studios and townhouse application dates begin as follows.

fall 2005 – January 31, 2005
spring 2006 – September 19, 2005
summer 2006 – January 2, 2006
fall 2006 – January 31, 2006

Apply as soon as possible within the application period dates.

An academic application to Simon Fraser University is not an application for residence accommodation. Further, academic acceptance from the University is not an offer of residence.

Regulations

Every student entering a residence is required to sign a lease or a rental agreement. It is renewable, based on the completion of residence and housing admittance and eligibility policy requirements.

Off Campus Housing

www.sfu.ca/offcampushousing

This website maintains a current listing of all types of housing available to students in the neighboring community. The services are free to students. Listings are not inspected in any way. Landlords listing their accommodation are required to pay $20 per listing for a one month display.

SFU Community Trust

Suite 150 – 8860 University High Street, 604.291.3220 Tel, 604.291.3189 Fax, www.university.ca

The SFU Community Trust is responsible for the planning and development of UniverCity, a new community on approximately 200 acres of land within the University’s Ring Road. UniverCity is a complete community that includes new housing, retail and commercial space, parks and recreational space. The first residents and businesses have now moved into the Highlands.

Neighbourhood, the first neighbourhood within the larger community, where construction will continue for the next few years. We welcome you to visit our website or our office for more information.

SFU International

1200 Maggie Benston Student Services Centre, 604.291.4322 Tel, 604.291.5880 Fax, sfu_international@sfu.ca, www.sfu.ca/international

SFU International is responsible for co-ordinating the University’s exchange programs and other international opportunities as well as encouraging a strong and visible international presence.

Students and recent graduates of SFU have access to a myriad of unique experiences and opportunities by becoming involved in any of the University’s many international and domestic activities, including student exchanges and field schools. The university can also offer some assistance in accessing employment and volunteer opportunities overseas.

International Students

SFU International is a resource for international SFU students and should be the first stop on campus after you move into accommodation. We offer many programs and services such as:

• orientation programming for all new international and exchange students
• temporary accommodation and arrival pick-up for new students
• non-academic advising on immigration issues relating to study permits, work permits and temporary resident (entry) visas
• assistance for exchange students with course registration
• information about private and provincial medical insurance
• information and assistance on income tax issues
• a student mentor program to support your personal and cultural transition
• workshops, information sessions and social-cultural programming to enhance your University experience
• referrals to many other services and resources both on and off campus

All SFU international and exchange students, visiting scholars and faculty, post-doctoral fellows and families are encouraged to visit our centre. Please email int_advising@sfu.ca or drop by SFU International.

Study Abroad

International Exchange Programs

Students in their third and fourth years at Simon Fraser University have access to unique education opportunities by becoming involved in a student exchange programme. When planning, courses taken outside of SFU may be used toward your Simon Fraser University degree and need not extend your period of study. Simon Fraser University has exchange relationships in many countries around the world and in Canada.

A student approved for participation in a formal exchange program may, with the approval of his/her major department(s), undertake a maximum of 30 lower or upper division exchange credit hours while participating in the program. Students who have transferred to SFU are allowed to count the additional 30 exchange credits in addition to any transfer credit the student may have been previously awarded.

Students participating in formal exchange programs may receive exchange credit for courses completed at the host university with a passing grade.

Transfer credit for exchange programs should be arranged before departure.

See http://students.sfu.ca/calendar for information about international program fees.

Bilateral Canadian Exchanges

Dalhousie University
Université Québec à Montréal (UQAM)
University of Ottawa
Université Laval
Université Montréal

National Student Exchange (NSE)

Simon Fraser University is a member of the American consortium NSE. Students can participate in an exchange with over 80 American public universities from each of the fifty states, including Alaska and Puerto Rico. More information is available on-line or in MBC 1200.

Eligibility for Undergraduate Exchanges

Participants on all exchanges must meet certain academic and residency requirements. All domestic and international exchange participants:

• must have completed 36 credit hours prior to application with a minimum of 12 credit hours completed at Simon Fraser University prior to application
• have been approved into a specialization (for example a major or minor)
• have achieved a minimum GPA of 2.67 in the last two semesters and 24 credit hours completed
• be entering third or fourth year at the commencement of the exchange program
• be a full time student during the exchange period.
Information Sessions
Information meetings for students interested in North
American or international exchanges will be held as
follows (times subject to change). Plan to attend one of
these meetings.

2005
Thurs., September 15 11:30-12:20 HAL 126
Thurs., September 22 3:30-4:20 HAL 126
Wed., September 27 9:30-10:20 HAL 126
Wed., October 12 11:30-12:20 HAL 126
Fri., October 21 12:30-1:20 HAL 126
Wed., November 1 10:30-11:20 HAL 126
Mon., November 21 1:30-2:20 HAL 126

2006
Wed., January 11 11:30-12:20 HAL 126
Mon., January 16 12:30-1:20 HAL 126
Thurs., January 19 12:30-1:20 HAL 126
Thurs., February 22 12:30-1:20 HAL 126
Thurs., March 2 10:30-11:20 HAL 126
Mon., March 13 3:30-4:20 HAL 126

Times subject to change; visit www.sfu.ca/international for
dates and times

Application packages are available on the web at www.sfu.ca/international. Application deadlines for
fall 2006 is January 28, 2006 and in spring 2007 is

Field Schools
Field schools are discipline-specific one-semester study
abroad programs for groups of students. Accompanied
by a professor of Simon Fraser University, participants
will spend one semester abroad earning SFU credit.
The following field schools are planned for the
2005/2006 academic year:

Fiji (summer 2006)
Sponsored by the Department of Linguistics, course
work will be taught by SFU and University of the South Pacific
faculty. Application deadline: January 2006

Fiji – South Pacific Archaeology (summer 2006)
The Department of Archaeology, through SFU
International, is offering an archaeological field school in
Fiji. Students will take courses in Fijian Culture, History
and Archaeology, Archaeological Field Methods, and do
a fieldwork practicum on an excavation project. The field
school will be taught by Professor David Burley.
Application deadline: January 2006.

French (summer 2006)
Sponsored by the Department of French, the field
school will take place in Tours, in the Loire Valley of
France. Students will spend eight weeks studying
French culture, language and literature at the Université
de Tours (all instruction in French). Application deadline:
February 2006.

Hellenic Studies (summer 2006)
Sponsored by the Hellenic Studies program, the field
school will spend one week at Simon Fraser University
followed by seven weeks of study in Kephallenia, Greece
with field trips to surrounding areas. Application deadline:
February 2006.

Humanities in the Czech Republic (summer 2006)
Sponsored by the Faculty of Arts and Social Sciences,
the field school will spend eight weeks in Prague
studying Czech culture and humanities courses.
Application deadline: February 2006.

India (fall 2006)
Sponsored by the Faculty of Education, the field school
will begin with three to four weeks at SFU Burnaby
followed by eight weeks in Chandigarh, India studying
intercultural and international education with field
excursions to surrounding areas. Application deadline:
May 2006.

Undergraduate International Exchanges

<table>
<thead>
<tr>
<th>Country</th>
<th>City</th>
<th>University</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>Buenos Aires</td>
<td>Universidad de Belgrano</td>
</tr>
<tr>
<td>Australia</td>
<td>ACT</td>
<td>Australian National University</td>
</tr>
<tr>
<td></td>
<td>Adelaide</td>
<td>Flinders University</td>
</tr>
<tr>
<td></td>
<td>Melbourne</td>
<td>Monash University</td>
</tr>
<tr>
<td></td>
<td>Perth</td>
<td>Murdoch University</td>
</tr>
<tr>
<td></td>
<td>Sydney</td>
<td>University of Western Australia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>University of Western Sydney</td>
</tr>
<tr>
<td>Belgium</td>
<td>Louvain</td>
<td>Université Catholique de Louvain</td>
</tr>
<tr>
<td>Brazil</td>
<td>Para</td>
<td>Universidad de Parana</td>
</tr>
<tr>
<td>China</td>
<td>Changchun</td>
<td>Jilin University</td>
</tr>
<tr>
<td></td>
<td>Shanghai</td>
<td>East China Normal University</td>
</tr>
<tr>
<td></td>
<td>Hangzhou</td>
<td>Zhejiang University</td>
</tr>
<tr>
<td>Czech</td>
<td>Prague</td>
<td>Charles University</td>
</tr>
<tr>
<td>Denmark</td>
<td>Aarhus</td>
<td>Aarhus University</td>
</tr>
<tr>
<td></td>
<td>Copenhagen</td>
<td>Copenhagen Business School</td>
</tr>
<tr>
<td>Ecuador</td>
<td>Quito</td>
<td>Universidad San Francisco de Quito</td>
</tr>
<tr>
<td>England</td>
<td>Bath</td>
<td>University of Bath</td>
</tr>
<tr>
<td></td>
<td>Brighton</td>
<td>University of Sussex</td>
</tr>
<tr>
<td></td>
<td>Leeds</td>
<td>University of Leeds</td>
</tr>
<tr>
<td></td>
<td>Norwich</td>
<td>University of East Anglia</td>
</tr>
<tr>
<td>Egypt</td>
<td>Cairo</td>
<td>American University of Cairo</td>
</tr>
<tr>
<td>Fiji</td>
<td>Suva</td>
<td>University of the South Pacific</td>
</tr>
<tr>
<td>Finland</td>
<td>Helsinki</td>
<td>Helsinki School of Economics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>University of Jyväskylä</td>
</tr>
<tr>
<td>France</td>
<td>Lille</td>
<td>Institut des Etudes Politiques</td>
</tr>
<tr>
<td></td>
<td>Nice</td>
<td>Université Nice Sophia Antipolis</td>
</tr>
<tr>
<td></td>
<td>Paris</td>
<td>Fondation Nationale des Sciences Politiques</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ESPC-EAP-Paris European School of Management</td>
</tr>
<tr>
<td>Germany</td>
<td>Baden Württemberg</td>
<td>University of Mannheim</td>
</tr>
<tr>
<td></td>
<td>Berlin</td>
<td>Humboldt University</td>
</tr>
<tr>
<td></td>
<td>Köln</td>
<td>Universität zu Köln</td>
</tr>
<tr>
<td>Greece</td>
<td>Athens</td>
<td>National &amp; Kapodistrian University of Athens</td>
</tr>
</tbody>
</table>
| Hong Kong| Chinese University of Hong Kong Baptist
University |
|         |         | University of Hong Kong                       |
| India    | Chandigarh | Panjab University                      |
|         | Chennai | Indian Institute of Technology, Madras        |
|         | Delhi   | Jawaharlal Nehru University                   |
| Iran     | Isfahan | University of Isfahan                        |
| Italy    | Milan  | Politecnico di Milano                         |
|         | Milan   | Universita Commerciale Luigi Boccaccio       |
| Japan    | Kyoto  | Ritsumeikan University                       |
|         | Osaka   | Kansai Gaidai                                 |
|         | Yokohama| Meiji Gakuin Daigaku                          |
| Korea    | Seoul  | Yonsei University                             |
|         | Seoul   | Seoul National University                     |
|         | Taegon  | Korea Advanced Institute of Science & Technology |
| Mexico   | Guadalajara | Universidad de Guadalajara                  |
| Mexico City | Instituto Tecnologico Autonomo de Mexico
(ITAM) |
| Monterrey|         | ITESM (six campuses in Mexico)                |
| Netherlands | Amsterdam | Universiteit van Amsterdam                 |
| Groningen|         | Hanze University                              |
| New Zealand | Auckland | University of Auckland                     |
| Norway   | Oslo   | Norwegian School of Management               |
|         |         | University of Oslo                           |
| Philippines | Manila  | De La Salle University                        |
|         |         | University of the Philippines                |
| Scotland | Dundee | University of Dundee                         |
|         | Edinburgh| Heriot-Watt University                       |
| Singapore|         | National University of Singapore             |
| South Africa | Cape Town | University of Cape Town                    |
| Spain    | Madrid | Universidad Complutense de Madrid              |
| Sweden   | Gothenberg | Chalmers University of Technology             |
|         | Lund    | Lund University                               |
| Switzerland | Basel  | Universiteit Basel                           |
|         |         | University of Malmo                          |
|         | Uppsala | Uppsala University                          |
| Thailand | Bangkok| Thammasat University                         |
| Turkey   | Istanbul| Koç University                                |
| USA      | Albuquerque | University of New Mexico                   |
|         |         | University of Northern Colorado             |
|         | Orono   | University of Maine                          |
|         | San Diego| San Diego State University                  |
|         |         | various cities National Student Exchange Program |

Graduate International Exchanges

<table>
<thead>
<tr>
<th>Country</th>
<th>City</th>
<th>University</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>Belgrano</td>
<td>Universidad de Belgrano</td>
</tr>
<tr>
<td>Australia</td>
<td>Sydney</td>
<td>University of Western Sydney</td>
</tr>
<tr>
<td>Chile</td>
<td>Santiago</td>
<td>Pontificia Universidad Catolica de Chile</td>
</tr>
<tr>
<td>Denmark</td>
<td>Copenhagen</td>
<td>Copenhagen Business School</td>
</tr>
<tr>
<td>England</td>
<td>Manchester</td>
<td>Manchester Business School</td>
</tr>
<tr>
<td>France</td>
<td>Grenoble</td>
<td>Groupe Ecole Superieure Commerce (ESC) Grenoble</td>
</tr>
<tr>
<td>Korea</td>
<td>Seoul</td>
<td>Seoul National University</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Maastricht</td>
<td>University of Maastricht</td>
</tr>
<tr>
<td>Taiwan</td>
<td>Taipei</td>
<td>National Taiwan University</td>
</tr>
<tr>
<td></td>
<td></td>
<td>University of Taiwan</td>
</tr>
<tr>
<td></td>
<td>Taipei</td>
<td>National Taiwan Normal University</td>
</tr>
</tbody>
</table>

18 Academic and Campus Services
Humanist Italy (fall 2006)
The Department of English sponsors the field school to Italy to acquaint students with some of the major achievements in literature and art of humanists from and in Italy of the mid-fourteenth century, anywhere in the program begins with three to four weeks of course work at SFU followed by eight weeks of classes and field trips in Italy. Application deadline: May 2006.

Italy Design (summer 2005)
Sponsored by the Faculty of Applied Sciences and the School of Interactive Arts and Technology, the Italia Design Field School uses ethnography, form analysis, pattern languages and other diverse design research methodologies to study the Italian social-linguistic situation as manifested in economic, design and innovation terms. Application deadline: February 2006.

Southeast Asia (summer 2006)
Sponsored by the Department of Sociology and Anthropology, the field school will study regional areas, minority peoples and traditional arts through anthropological studies and course work. The field school will travel to Vietnam and Thailand. Application deadline: February 2006.

Field School Information Sessions
To find out more, attend an information session, as shown below.

2006 Field Schools in Europe

<table>
<thead>
<tr>
<th>Time</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thurs., September 22</td>
<td>2:30 - 3:20</td>
</tr>
<tr>
<td>Fri., October 21</td>
<td>10:30 - 11:20</td>
</tr>
<tr>
<td>Tues., November 22</td>
<td>1:30 - 2:20</td>
</tr>
<tr>
<td>Thurs., January 12</td>
<td>3:30 - 4:20</td>
</tr>
</tbody>
</table>

2006 Field Schools in Asia/South Pacific

<table>
<thead>
<tr>
<th>Time</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fri., September 23</td>
<td>10:30 - 11:20</td>
</tr>
<tr>
<td>Monday, October 24</td>
<td>1:30 - 2:20</td>
</tr>
<tr>
<td>Wednesday, November 23</td>
<td>3:30 - 4:20</td>
</tr>
<tr>
<td>Friday, December 16</td>
<td>11:30 - 12:20</td>
</tr>
</tbody>
</table>

Times subject to change; visit www.sfu.ca/international for dates, times, and locations

Independent Study Abroad
Students may study at institutions in virtually any country and may receive SFU credit. Students arrange these programs individually, and must also organize transfer credit using a Letter of Permission. Finance, tuition, academic and language requirements of the host institution must be met by the student. Contact the host university regarding application and admission requirements. Information regarding the process for an SFU Letter of Permission (LOP) is available from Student Services (see Courses at Other Institutions on page 45).

Student International Mobility Fund (SIMF)
The Student International Mobility Fund (SIMF) has been developed to support international professional development opportunities for SFU undergraduate students which contribute to the internationalization of the SFU Community. Funding has been identified to assist with travel, participation and living costs for individual students engaged in international seminars.

Sympiosia (such as WUSC, United Nations), conferences and internships. The SIMF does not provide funding for international exchange, field school or paid co-op placements.

For detailed information and application, go to www.sfu.ca/international/abroad/Other_Programs/

Simon Fraser Public Interest Research Group (SFPIRG)
326 Transportation Centre, 604.291.4360 Tel, 604.291-5338 Fax, sfpirg@sfu.ca, www.sfpirg.ca
SFPIRG, located two floors above the bus stop on the Burnaby campus, is a non-partisan, student funded and directed resource centre dedicated to social and environmental justice. We bring together students, staff, faculty and community groups to organize and educate about issues of public interest.

All SFU students are members of SFPIRG. Faculty, staff and community members are also encouraged to use our services, resources, library, and attend our workshops.

SFPIRG, a volunteer based non-profit organization, is always looking for new active members. To find out more about us and what we do, come by the office for an orientation (check our website for orientation times), pick up an Anthimmes magazine from one of the SFPIRG boxes around campus, or simply drop by the office for more information.

Simon Fraser Student Society
2250 Maggie Benston Student Services Centre, 604.291.3181 Tel, 604.291.5843 Fax, www.sfss.ca

Membership
The Simon Fraser Student Society is the students’ union at Simon Fraser University and each SFU student is a member. By pooling the resources of the students at our University, the Student Society is able to represent the interests of our members to University administrators and the broader community.

SFU students stand in solidarity with nearly 450,000 students across Canada, as local 23 of the Canadian Federation of Students. As members of the federation, the Student Society works collectively with more than 70 students’ unions across the country to provide an effective and united voice, provincially and nationally. See www.cfs-fcee.ca for more information.

Structure and Representation
Each student enrolled in an SFU class is a member of the Simon Fraser Student Society and is entitled to become involved in setting the direction of the Student Society at various levels. Members may run in spring elections to serve on the Student Society board of directors or the Student Society forum, which is represented by students from each SFU department. Annually the Student Society holds its general meeting at which every member can participate and vote.

Members can also participate in individual department student unions. The Student Society provides funding and administrative support for departmental student unions and graduate caucuses — the grassroots constituencies of the Student Society. Student unions and graduate caucuses elect student representatives to departmental committees, provide opportunities to socialize, and organize projects. By working with a student union or graduate caucus, students have a vote on vital issues ranging from course offerings to government funding.

Advocacy
The Simon Fraser Student Society works hard to advocate student issues on a local, provincial and national scale. Locally, the society works to ensure that the University remains open, accountable and receptive to student needs. Provincially and nationally, the Student Society joins student unions across the country through the Canadian Federation of Students to increase funding, accessibility, education quality, and to ensure that post-secondary education becomes a government priority.

The Student Society also serves as an advocate on many matters including Aboriginal issues, ethical procurement, human rights, affordable housing, corporate influence and promoting accountability within our University. Please visit us online at www.sfss.ca for more information.

Student Services and Resources
The Student Society offers money-saving services such as six cent photocopiers, a popular book buyback program, free legal clinics, the Women’s Centre, Out on Campus, the Ombuds Office, our own catering service and many other services. The Student Society works with the Canadian Federation of Students to offer free student day planners, the Studentsaver discount card, Travel CUTS, homes4students.ca, and the Student Work Abroad Program.

Catering Services
Catering is one of the most popular Student Society services. Excellent quality and reasonable prices make meetings and conferences more enjoyable.

Discount Cards
The Student Society, along with the other Canadian Federation of Students unions, offer two valuable discount cards. The Studentsaver offers student discounts across the country on everyday items with more than a thousand discounts in the Lower Mainland. The International Student Identity Card (ISIC), available to all full time students, offers discounts on travel by plane, train or bus as well as other discounts across the world.

Highground Coffee Bar
This Student Society-run coffee bar, located across from the library, is a quick-stop cappuccino bar selling muffins, cookies, sandwiches, pizza, tasty to-go items, and a variety of fair trade coffee. Bring your own mug for a discount price.

Highland Pub
The Highland Pub is a favorite with students. In addition to quenching your thirst, the pub offers great meals for very reasonable prices. Relax on the outdoor patio while admiring one of the best views of the Lower Mainland.

Homes4Students.ca
Homes4students.ca is a national online housing database owned and operated by the Canadian Federation of Students. By assembling regional listings in one place, homes4students.ca enables students to search for housing anywhere in the country quickly, efficiently, and for free. In addition, information about tenants’ rights and housing advocacy associations can be found on the site.

Legal Clinic
The Student Society provides a free legal clinic every other Thursday afternoon. Make appointments through the Student Society general office.

Ombuds Office
The Ombuds Office, funded by the Student Society, ensures that all members of the University community receive fair and equitable treatment. It is located at MBC 2205, call 604.291.4563/5524, or email ombudsoffice@sfu.ca.

Out on Campus
This lesbian, bisexual, gay and transgendered collective provides resources, organizational support, advocacy and social events. Composed of people...
from different SFU communities, it welcomes all to its premises in TC 314 (north). Call 604.291.5933, or visit www.sfu.ca/out-on-campus.

**Photocopying**

CopyRite, owned and operated by the Student Society, is a flexible, friendly environment providing students with fast, inexpensive copying and printing services and many self-serve photocopiers across campus. CopyRite is located in MBC 2260.

**Quad Books**

Located at MBC 2260, student-owned Quad Books sells low priced school supplies, postage stamps, snacks and offers a fax service. It also operates the popular Book BuyBack before and after exams where students sell and buy used textbooks to save money.

**Women’s Centre**

The centre provides on-campus space to women, and resources to both women and men. It has a 24 hour lounge, a resource office and an extensive library. Campus men can access the library through catalogues housed at SFP/RG, and have access to referral and community information by phone. There is also a kitchen, microwave, free telephone, and children’s play area. New members are always welcome and discussion groups, Wenlindo and orientations are offered regularly. Drop by TC 3013.

**Financial Aid and Employment**

**Student Society Bursary**

To help make education more accessible, the Student Society allocates over $10,000 each year towards its bursary program.

**Simon Fraser Student Society**

The Student Society provides student job opportunities at the Highland Pub, Quad Books, the general office and CopyRite. Job postings are displayed at the Student Society general office as well as employment services located at MBC 1150.

**Student Work Abroad Program**

Administered by the Canadian Federation of Students, the Student Work Abroad Program (SWAP) helps students to work and live in another country for up to two years. SWAP brochures are available at the Travel CUTS office at MBC 2270.

**Membership Dues**

The Student Society collects semester fees and levies to fulfil its responsibility to represent and serve students. Each Student Society member pays a membership fee which funds projects, services and advocacy of the Simon Fraser Student Society. These fees also pay for office space in the Maggie Benston Student Services Centre. Membership dues are collected for the Canadian Federation of Students also. All fees were first introduced through referendum, and voted on at one time or another by SFU students. Membership dues are broken down as follows (subject to change):

<table>
<thead>
<tr>
<th>Service</th>
<th>Full time</th>
<th>Part time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simon Fraser Student Society membership fee</td>
<td>$24.35</td>
<td>$12.18</td>
</tr>
<tr>
<td>Student Society Building Fund/Capital Levy</td>
<td>$15.00</td>
<td>$7.50</td>
</tr>
<tr>
<td>Canadian Federation of Students provincial membership fee*</td>
<td>$3.66</td>
<td>$1.80</td>
</tr>
<tr>
<td>Canadian Federation of Students national membership fee*</td>
<td>$3.66</td>
<td>$1.80</td>
</tr>
<tr>
<td>Simon Fraser Public Interest Research Group</td>
<td>$3.00</td>
<td>$1.50</td>
</tr>
<tr>
<td>Peak Publication Society**</td>
<td>$4.90</td>
<td>$2.45</td>
</tr>
<tr>
<td>CJSF — Campus Community Radio Society</td>
<td>$3.00</td>
<td>$1.50</td>
</tr>
<tr>
<td>Student Refugee — WUSC</td>
<td>$0.50</td>
<td>$0.25</td>
</tr>
<tr>
<td>First Nations Student Association</td>
<td>$0.75</td>
<td>$0.38</td>
</tr>
<tr>
<td>Accessibility Fund***</td>
<td>$0.75</td>
<td>$0.38</td>
</tr>
</tbody>
</table>

* fee adjusted annually based on the Consumer Price Index  
**fee increase approved by referendum in spring 2003  
***fee approved via student referendum in spring 2005

**Statistical Consulting Service**

K10557 Shrum Science Centre, 604.291.4670 Tel, www.stat.sfu.ca/statsconsulting.shtml, stat_scs@stat.sfu.ca

The service, a component of the Department of Statistics and Actuarial Science, provides advice and assistance in the design of experiments, surveys, and analysis of all manner of data to university and community clients. The service draws on the expertise of statistics faculty and graduate students.

The SCS has a full time director who is a qualified statistical consultant.

**Student Development and Programming Centre**

1150 Maggie Benston Student Services Centre, 604.291.4476 Tel, 604.291.5773 Fax, www.sfu.ca/studentlife

**General Information**

Welcome to SFU! In a University as large as Simon Fraser, figuring out how to get information can be difficult. The friendly staff at SDPC can help. We’ll answer your questions, and if we don’t know the answer, we’ll contact someone who does.

**New Student Orientation – Discover SFU**

Three times a year our centre organizes orientation programs for students new to Simon Fraser. Over 2,000 students attend our orientation sessions each year, and you should, too! We work closely with other Burnaby and Surrey campus services that offer specialized orientation programs such as Parent & Family, First Nations, international, and residence. For more information about orientation, visit www.sfu.ca/studentlife/orientation/.

**Leadership Programs**

Our centre works with other university departments to enhance student leadership programs including the annual Leadership Summit held at the end of August. For more leadership information, visit www.sfu.ca/studentlife/leadership/.

**Volunteer Programs**

Volunteering is an excellent way to meet people, gain experience and explore career options. Find out more about volunteering and the range of opportunities both on and off campus by visiting www.sfu.ca/studentlife/volunteer/.

**Food Bank**

The centre operates the SFU Food Bank in conjunction with the Simon Fraser Student Society to meet the needs of students. For more information about this confidential service, please visit www.sfu.ca/studentlife/foodbank/.

---

Simon Fraser University 2005-2006
Simon Fraser University Surrey

2400 Central City, 10153 King George Highway, Surrey, BC V3T 2W1, 604.268.7500 Tel, 604.268.7488 Fax, www.surrey.sfu.ca, surrey@sfu.ca

Campus Director
J. Curry BComm (Manit) MBA (S Fraser)

Simon Fraser University Surrey is one of BC's leading university campuses for study and research. Offering distinguished nationally and internationally acclaimed programs, SFU Surrey promotes student success with a high quality learning environment based on innovative teaching approaches, small class sizes, and vibrant research community. The campus, which opened its doors in September 2002, is located adjacent to the Surrey Central SkyTrain station at King George Highway and Old Yale Road. Programs in Arts and Social Sciences, Education, Science, Interactive Arts and Technology, Computing Science, and Business Administration are being offered. Students entering their first year of university at SFU Surrey have a choice of three innovative cohort programs: TechOne, an interdisciplinary program focusing on the interplay of creative arts and information technology (offered by the Faculty Applied Sciences), Science Year One, a suite of first year science courses targeted towards Science majors (offered by the Faculty of Science) and Explorations, a program presenting students with opportunities in the humanities and social sciences (offered by the faculty of Arts and Social Sciences). Continuing Studies programs, including Liberal Arts and Business Studies, are also offered. More than 1,000 undergraduate and graduate students are enrolled in these programs, a number which is projected to increase to 2,500 by the year 2010.

Facilities and Services
Currently, classrooms, library facilities and research labs are located at Central City Shopping Centre, while administrative and faculty offices are located in the nearby Central City tower. In the fall of 2006, Simon Fraser University will open its new permanent Surrey campus. The new facility will be located in Central City, an award winning architectural complex. Central City was designed by architect Bing Thom, who will receive an honorary degree from SFU in May 2006. The new campus will be temporarily located just inside the main entrance during the first three weeks of each term. Due to space limitations, only textbooks for courses offered at the Surrey campus will be available.

Student and Registrar Services
604.268.7400 Tel, 604.268.7403 Fax, stserv@sfu.ca, www.surrey.sfu.ca/c_students/regservices.html, Monday to Friday, 9 am – 4:30 pm

The Student and Registrar Services Counter provides most Registrar front-counter services for Simon Fraser University Surrey students. These include:
- official transcripts
- verification of enrollment
- tuition fee payments and admission deposits
Please note that tuition payments can only be made by cheque, debit card and cash. Post-dated cheques cannot be accepted. Simon Fraser University Surrey students have access to a wide variety of student services. To view all current opportunities available to students of the Surrey campus please see: http://www.surrey.sfu.ca/c_students/index.html.

Student Recruitment
604.268.7400 Tel, 604.268.7403 Fax, ugrad-surrey@sfu.ca, www.surrey.sfu.ca/c_students/index.html

Recruitment Services provides prospective students with information about the people, programs, and campus of Simon Fraser University Surrey. Contact us for detailed guidance on University entrance and admission requirements, or find out more about SFU Surrey by taking advantage of campus tours, information sessions, open houses, and presentations. Online resources for prospective students are available at: www.surrey.sfu.ca/c_students.

Student Life
604.268.7400 Tel, 604.268.7403 Fax, ugrad-surrey@sfu.ca, www.sfu.ca/studentlife

Simon Fraser University Surrey has a full time Student Life Coordinator who supports a variety of campus activities, including orientation, clubs and services days, and student led events/programs. The Student Life Coordinator also promotes volunteering and building campus community.

Recreational Services
604.268.7543 Tel, cgi.sfu.ca/~recreati/newsite/

Recreational programs at Simon Fraser University Surrey are offered in partnership with City of Surrey Parks and Recreation. Access is currently available only to members of the Surrey campus community. This includes students who have been accepted or approved to programs/majors specifically available at Surrey. It includes access to community fitness/weight rooms, swim sessions, and non-registered aquatic and fitness programs. Students in approved programs at Simon Fraser University Surrey can also participate in various intramural and fitness classes.

Simon Fraser University Bookstore at Surrey
604.268.7537 Tel, bookstore@sfu.ca, www.sfu.ca/bookstore

For Fall 2005 and Spring 2006, the Simon Fraser University Bookstore at Surrey will be temporarily located just inside the main entrance during the first three weeks of each term. Due to space limitations, only textbooks for courses offered at the Surrey campus will be available.

Amenities
The campus is located in a commercial area with many amenities — shopping, recreation, parks and restaurants — within easy walking distance.

Academic Computing Services
SFU Surrey has several computer labs with Macintosh, Windows and Unix-based systems, available to students when not in use for classes.

Library
The Surrey campus library contains over 8,000 books, journals, CD-ROMs, videos, DVDs and games. In addition to traditional resources, the Surrey Library specializes in electronic resources and media and lends digital cameras and other equipment.

InfoNet Media Lab
The InfoNet Media Lab houses a computer-based environment that allows for the creation, usage, and sharing of multi-modal information to support such areas as multimedia applications, image and video processing, computer graphics and animation, data and information visualization, multi-modal human-computer interaction, parallel and distributed computation, bioinformatics, and applications in e-learning, artificial intelligence and gaming.

Interactivity Lab
The Interactivity Lab involves researchers from varied backgrounds (computing science, art, design, performing arts, education, and social science) challenging our current range of digital interfaces and interactivity solutions.

Electronic Commerce, Communication and Communities Usability Lab
The Electronic Commerce, Communications and Communities Usability Lab (EC3 Usability Lab) examines the areas where the virtual world interfaces with the physical world. The lab develops and evaluates applications that merge the virtual and physical world and provides a platform for research in user interface, user response, and user requirements in areas such as electronic commerce, educational technology, and community informatics.

Computing Science Research Lab
The Computing Science Research Lab currently houses research groups involved in bioinformatics, peer-to-peer networks, computational geometry, computer music and virtual instruments and open source software. The focus of the research is in developing underlying principles and algorithms to improve current applications.

Research
Research faculty from Business, Computing Science, Education, Interactive Arts and Technology, and Mathematics are located at Simon Fraser University Surrey. Leading-edge research is being conducted in a variety of areas, including information networking and multimedia, computer graphics, digital audio signal processing, bioinformatics, operations, technology-mediated learning, computer-based games, eBusiness, and knowledge management.

Simon Fraser University Surrey has five research labs: the Shared Virtual Environment Lab, the InfoNet Media Lab, the Electronic Commerce, Communication and Communities Usability Lab, and the Computing Science Research Lab.

Shared Virtual Environment Lab
The particular focus of the lab is shared virtual environments where technology is used to provide sensory cues of physical presence. The lab supports research into shared spaces, developed to provide an immersive virtual reality environment in which users can interact with others in similar spaces in Canada and around the world.

The LIDC assists faculty to develop and implement effective teaching and learning strategies using technology-enhanced teaching and learning.

The Learning and Instructional Development Centre (LIDC) provides learning resources and support services to learners at Simon Fraser University, and promotes the integration of effective teaching and learning strategies. The LIDC is located on the Vancouver, Burnaby and Surrey campuses, and external clients. The LIDC at SFU Surrey has a particular strength in developing and delivering technology-enhanced teaching and learning.

The LIDC at SFU Surrey has a particular strength in developing and delivering technology-enhanced teaching and learning.

LIDC at Surrey (formerly eLINC)
Simon Fraser University Surrey is one of the homes of the Learning and Instructional Development Centre (LIDC). The LIDC assists faculty to develop and revise programs and courses for the undergraduate programs, graduate programs, and non-academic initiatives at the Simon Fraser University Surrey, Vancouver, and Burnaby campuses, and external clients. The LIDC at SFU Surrey has a particular strength in developing and delivering technology-enhanced teaching and learning.

Simulation and Mathematical Modelling
Simulation and mathematical modeling is an essential tool for the physical and social sciences. The focus of the research is in developing underlying principles and algorithms to improve current applications.
Program Options at Simon Fraser University Surrey 2005/2006

plan your future

At SFU Surrey the opportunities are endless. Follow a path and choose from programs in Applied Sciences, Arts & Social Sciences, Business, Science or Education.

For more information about the programs at Simon Fraser University Surrey please visit us on the web at www.sfu.ca/admissions or call Student Services at 604-291-3177.

SFU Surrey is located at 2400 Central Ciy, 10159 King George Highway, Surrey, B.C., Canada, V3T 2V1.

To complete a Bachelor of Education, students are initially admitted into the Faculty of Arts & Social Sciences or the Faculty of Science. Students may also enter the professional education program typically postgraduate to earn a teaching certification.
Simon Fraser University Vancouver

Unless otherwise noted, programs and services are based at:
515 West Hastings Street, Vancouver, BC V6B 5K3, 604.291.5000 Tel, 604.291.5060 Fax, www.harbour.sfu.ca

Vice-President, University Relations
W.G. Gill BA, MA, PhD (Br Col)

Executive Director
A. Cowan BA (Torr), MA (Car)

Simon Fraser University is committed to the renewal of individuals and organizations through programs of advanced learning.

First established in 1980 in a storefront classroom on Howe Street, the SFU campus in downtown Vancouver now comprises the headquarters at Harbour Centre, the Morris J. Wosk Centre for Dialogue, the Chief Dan George Centre for Advanced Education, the School for Contemporary Arts studios at 611 Alexander and the Segal Graduate School of Business. Built largely through private sector funding, the Vancouver campus offers a range of programs and services directed to mid-career intellectual and professional growth, providing continuity between work and study within an environment created specifically for advanced learning and specialized graduate and undergraduate programs. Researchers at the downtown campus benefit from their proximity to others engaged in research in the urban community.

In 2008 the School for the Contemporary Arts will move its Burnaby campus programs to the Vancouver campus and will occupy a new facility on the redeveloped Woodward’s site.

With over 270,000 square feet of instructional resources, the campus currently serves over 85,000 people annually. Each semester approximately 2,400 undergraduates and 400 graduate students take credit courses, and thousands of individuals, groups and companies pursue continuing studies education opportunities, attend public programs, or use the campus for community, corporate and other meetings. (See Meeting and Event Services, below).

The Harbour Centre site opened in 1989, the result of a close collaboration of the University and the business, professional and cultural communities, the City of Vancouver and the Province of British Columbia. This association has grown as the University continues to seek the advice and participation of the downtown community in the development of its mission and programs.

Morris J. Wosk Centre for Dialogue
580 West Hastings Street, Vancouver V6B 5K3, 604.291.5800 Tel, 604.291.5818 Fax, dialogue.sfu.ca

The Wosk Centre is a dedicated 42,000 square foot conference centre available for use by university, business and community clients for a variety of meetings and events. It is also the site for specialized university programming associated with the Dialogue Group. Leaders and groups from all sectors use the facility to meet and discuss local, national and international issues.

The unique Asia Pacific Hall has in-the-round seating for 154 and complete videoconferencing and translation facilities. Its name recognizes the federal government’s support and honors Canada’s Year of Asia Pacific. Recently it was the site of the Vancouver meetings of The Citizens’ Assembly on Electoral Reform. The heritage building was a gift to the University from Allied Holdings, developer of the adjacent hotel, condominium and retail complex.

Segal Graduate School of Business
500 Granville Street, Vancouver, BC V6B 5K3

This restored and renovated heritage bank building will open for classes in September 2005. The building was given to the University by chancellor emeritus, Dr. Joseph Segal and his family.

Chief Dan George Centre for Advanced Education
639 Hornby Street, Vancouver V6C 2G3, 604.268.7500 Tel, 604.291.5098 Fax

The Chief Dan George Centre for Advanced Education (CDGC) is a post-secondary centre for management and entrepreneurial learning for First Nations and non-native students, a cultural centre and an international centre for indigenous knowledge.

In a partnership with Simon Fraser University, the CDGC’s first home is in downtown Vancouver’s exceptional facilities provided through the support of the City of Vancouver.

The centre’s goals and objectives address the compelling shortage of courses, programs and other post-secondary opportunities for First Nations people to become managers and administrators within their own communities. The centre is envisioned to become an internationally recognized centre of indigenous learning for both Aboriginal and non-Aboriginal learners by embodying holistic values in a place to gain and share knowledge and eliminate differences. Through the centre’s activities, research and programming linkages with the Academy of Independent Scholars, and the Faculty of Education, the public will be welcomed to programs, workshops, lectures, ceremonies and cultural events to create cross-cultural connections and relationships extending beyond the physical walls.

Information and Registration Services, Harbour Centre
604.291.5000 Tel, 604.291.5060 Fax, 10 am – 7 pm Monday to Thursday, 10 am – 5 pm Friday, (reduced hours in effect during semester breaks), www.harbour.sfu.ca/misc/infereg.html

Director
R.B. MacLeod BComm (MAll)

The office provides a wide range of services for all SFU Vancouver students and prospective students including, but not limited to:

• information on all programs at SFU Vancouver
• information on courses, programs and services at the Burnaby Mountain campus
• information on graduate programs
• academic advising
• assistance and information on admission to, and registration in, undergraduate and credit-free courses
• information on distance education courses and programs
• course changes
• fee payments

The Simon Fraser University Vancouver catalogue of programs, courses and events as well as brochures describing individual programs are available at Information and Registration Services.

The catalogue is also available online at www.harbour.sfu.ca/catalogue/.

Admission and Registration

Registration in undergraduate and graduate courses is a two step process. Students must first have been admitted to the University before they may choose the courses in which they wish to participate. Prospective applicants should note that admission to the University is competitive and that applications should be completed as early as possible. It is also important to note that consideration for admission is given for the University as a whole and is not specific to any campus. Therefore, students wishing to take undergraduate or graduate courses only at the Vancouver campus must meet all the admission requirements as approved by the University senate. For further information about undergraduate or graduate entrance to Simon Fraser University, please see the appropriate sections of this Calendar.

Those who are currently students of the University can select Vancouver courses through the usual course registration process. For detailed information on undergraduate course selection, please refer to the Registration section and for graduate information, please see the General Regulations, Graduate section.

Registration for and/or admission to most credit free programs is on-going and continues until the program or course is full. Interested students should call Continuing Studies at 604.291.5100 for information about specific programs.

Samuel and Frances Belzberg Library, Harbour Centre
604.291.5050 Tel, 604.291.5082 Fax, 10 am – 9 pm Monday to Thursday, 10 am – 7 pm Friday, 10 am – 5 pm Saturday (reduced hours are in effect during semester breaks), www.harbour.sfu.ca/belzberg/

Head
K.V. Marotz BA (S Fraser), MLS (Br Col)

Belzberg Library serves students, staff and faculty of Simon Fraser University Vancouver with a range of library services including reference assistance, loan of library material, access to course reserve items and requests for materials from the W.A.C. Bennett Library at the Burnaby campus, the SFU Surrey campus, and other academic libraries. On-line services form an essential element of this electronic library. A web-based catalogue, searches of commercial and public databases, electronic journals, and access to library files on the campus network are all available. Quiet study space is provided in the library.

The library collection supports the courses and programs offered downtown. It currently consists of over 8,000 books and several hundred journal titles as well as microfilm and fiche collections.

Library Cards: The student identification card serves as library card; it is issued to Vancouver campus students enrolled in credit courses by Information and Registration Services. Students in credit-free courses at the Vancouver campus may request a library card
from the Belzberg Library. Cards for external users are available for an annual fee.

Textbooks: All downtown credit and credit-free course textbooks are sold from a branch of the Simon Fraser University Bookstore located in the Harbour Centre Mall.

Academic Computing Services, Harbour Centre

Royal Bank Instructional Computing Facility
604.291.5030 Tel, 10 am – 10 pm Monday to Thursday, 10 am – 7 pm Friday, 10 am – 12 noon, 1 pm – 5 pm Saturday, closed Sunday, www.harbour.sfu.ca/maes/labs.htm

Senior Systems Consultant
M. Jutras

The Royal Bank Instructional Computing Facility at the Harbour Centre campus has four well-equipped teaching labs and a drop-in centre that may be used by SFU students, faculty and staff in support of the academic and professional development programs offered at the downtown campus. When the teaching labs are not being used for scheduled classes or tutorials they are available for drop-in use. All users must be part of the University community and are required to have a valid SFU computing account (e-mail account) or an authorized provisional account. IBM Labs (North and South); equipped with 16 IBM A40 1ghz Pentium III microcomputers for students and an additional machine connected to an overhead display for use by the instructor. The lab is connected to a Windows network server, standard and color laser printers, as well as Unix and other campus network services.

Mac Annex Lab: equipped with eight eMac microcomputers and an additional instructor machine. This smaller lab includes a flatbed scanner, external 1.44 MB floppy drive and 250 MB zip drive, connections to the printers, servers and the Internet.

Drop-in Centre: Equipped with six eMacs and 10 IBM A40 1ghz Pentium III microcomputers offering the same services as the other two labs. This area may not be reserved.

Himie Koshevoy Publishing Lab

Hours: 10 am – 10 pm Monday to Thursday, 10 am – 7 pm Friday, 10 am – 5 pm Saturday, closed Sunday

The Himie Koshevoy Publishing Lab, located on the second floor at Harbour Centre, is equipped with 18 PowerMac G4 computers with two page color displays, and CD-RW/DVD-ROM. Machines also have access to an 11x17 standard printer, color printer, flatbed scanner, external zip drive, external floppy drive, file servers and the Internet. Access is by means of a valid SFU Computing Account (e-mail account) or an authorized provisional account.

Lectures, Exhibitions and Special Events
604.291.5100 Tel, cs_hc@sfu.ca
www.harbour.sfu.ca/psa/

The campus community and the general public are invited to attend the many Vancouver campus public lectures and special events. Public events are free but seating is limited; reservations are recommended. Contact us to be added to the mailing list. For e-mail notification, write to mailalist@sfu.ca and enter <subscribe sfuvan-info> in the subject line.

Teck Gallery, Harbour Centre
604.291.4266 Tel, www.sfu.ca/artgellery/Teck/index_Teck.htm
The Teck Gallery is located in the Harbour Centre concourse. The gallery offers several exhibits throughout the year. Promising new artists are showcased along with those of international and national stature. The Teck is open campus hours.

Action Canada Fellowship Program
604.268.7961 Tel, actioncanada@sfu.ca, www.actioncanada.ca
Action Canada, a new national fellowship program affiliated with the Morris J. Wosk Centre for Dialogue, is housed at the Harbour Centre campus. Each year 20 young Canadians are selected for a program of leadership development and public policy study.

Undergraduate and Graduate Programs

SFU offers graduate and undergraduate programs as well as professional development programs at the Vancouver campus.

At the introductory undergraduate level are certificate programs requiring approximately 30 credit hours of study. Diploma programs consist primarily of upper level undergraduate courses. Courses for the programs listed below are often offered at the Vancouver campus. Browse the academic departments sections for information.

• Certificate in Actuarial Mathematics
• Certificate in Applied Human Nutrition
• Certificate in Chinese Studies
• Certificate in Computing Studies
• Certificate in Criminology (general and advanced)
• Certificate in Family Studies
• Certificate in First Nations Language Proficiency
• Certificate in French Canadian Studies
• Certificate in French Language Proficiency
• Certificate in Health and Fitness Studies
• Certificate in Liberal Arts
• Certificate in Literacy Instruction
• Certificate in Native Studies Research
• Certificate in Public History
• Certificate for Senior Citizens
• Certificate in Spanish Language Proficiency
• Certificate in Spatial Information Systems
• Certificate in Teaching ESL Linguistics
• Certificate in Urban Studies
• Certificate in Women's Studies
• Post Baccalaureate Diploma in Communication
• Post Baccalaureate Diploma in Community Economic Development
• Post Baccalaureate Diploma in Computing Science
• Post Baccalaureate Diploma in Criminology
• Post Baccalaureate Diploma in Gerontology
• Post Baccalaureate Diploma in Humanities
• Post Baccalaureate Diploma in Kinesiology
• Post Baccalaureate Diploma in Public History
• Post Baccalaureate Diploma in Social Policy Issues
• Graduate Diploma in Business Administration (on-line)

The Undergraduate Semester in Dialogue is a full-time, one semester program (see page 242). Additional undergraduate courses are also offered on a regular basis in business administration, international communication and other disciplines. For current offerings telephone 604.291.5000.

Graduate programs offered include: master of arts in gerontology, master of arts in liberal studies, master of business administration in several disciplines (see www.sfubusiness.ca/mba for details), master of public policy, master of publishing, master of urban studies and a doctorate in educational leadership. Other programs are under development.

Continuing Studies
604.291.5100 Tel, 604.291.5098 Fax, www.sfu.ca/cstudies

Dean
J.G. LaBrie BS (Maine), MSA (St Michael's, Vt), EdD (Penn)

Simon Fraser University Vancouver programs address advanced recurring educational needs of the downtown business, professional and cultural communities through graduate degrees, undergraduate and degree completion programs and selected certificate programs. Also offered are intensive, specialized short courses, seminars and conferences developed from University and community resources.

Participants in the latter category are not required to be formally admitted to the University, although some programs have their own admission requirements. As a rule, there are no examinations and no university credit is awarded. In every other way these programs meet the high standards of university level instruction.

The University awards certificates for selected credit-free programs that have been approved by senate and meet specific criteria, including a minimum of 120 contact hours and formal evaluation.

Programs are held during the day, evening and on weekends. They are taught by faculty from the University, business, the arts and the professions.

For detailed information, or to enquire about in-house programs which can be developed for companies and organizations, see the Continuing Studies section, or call Continuing Studies at 604.291.5100.

Simon Fraser University Vancouver Research Institutes

The following institutes and centres are based at the Vancouver campus. Consult the Calendar Index to locate further details about these organizations.

• Canadian Centre for Studies in Publishing
• Centre for Education, Law and Society
• Centre for Experimental and Constructive Mathematics
• Centre for Policy Research on Science and Technology
• Centre for Public Policy Research
• Centre for Research on Violence Against Women and Children
• Centre for Sustainable Community Development
• Council for North American Business Studies
• Dialogue Centre
• Gerontology Research Centre
• Institute for Critical Studies in Gender and Health
• David See-Chai Lam Centre for International Communication
• Geraldine and Tong Louie Human Performance Centre
• Pacific Institute for the Mathematical Sciences
• 7th Floor Media
• Simon Fraser University/University of British Columbia Centre for the Study of Government and Business

TIME Centre
604.268.7970 Tel, www.sfu.ca/time

The Technology, Innovation, Management and Entrepreneurship (TIME) Centre is a Simon Fraser University initiative to support technological enterprise in BC. It houses Poly Lab, 7th Floor Media, TIME Business Centre and TIME Ventures Incubator.
Harbour Centre Services

Health, Counselling and Career Centre – Harbour Centre
300 Harbour Centre, 604.291.5200 Tel
The Vancouver campus medical clinic is open from 10 am to 5:30 pm, Thursday and Friday.
Health Services provides a full range of medical care for students, faculty and staff. Physicians provide medical care in the same manner as a family doctor. Referrals are made for special health problems, surgical procedures, X-rays or special lab tests.

Medical files are maintained in the strictest confidence.

Meeting and Event Services, Harbour Centre
604.291.5258 Tel, 604.291.5060 Fax
www.harbour.sfu.ca/maes
Morris J. Wosk Centre for Dialogue, 580 West Hastings Street
604.291.5800 Tel, 604.291.5818 Fax
www.sfu.ca/dialogue
Simon Fraser University Vancouver is the ideal venue for conferences, meetings, seminars and special events, offering superb facilities and catering, innovative programming and professional event management.

Simon Fraser University Bookstore at Harbour Centre
604.291.5048 Tel, 604.291.5219 Fax.
www.sfu.ca/bookstore, hcbooks@sfu.ca
The Simon Fraser University Bookstore at Harbour Centre is located in the Harbour Centre Mall. The Bookstore carries general books and textbooks for courses offered at the Harbour Centre campus. The Bookstore also carries Simon Fraser University crested sportwear and memorabilia, stationery and specialty gift items.
Undergraduate Studies
General Information

Student Academic Resources
3200 Maggie Benston Student Services Centre, 9:00 am – 6:00 pm Monday to Thursday, 10:00 am – 4:30 pm Friday, 604.291.4356 Tel, 604.291.4969 Fax, acadvice@sfu.ca, http://students.sfu.ca

Academic Advising
Student Academic Resources provides academic advice for newly admitted and continuing first and second year students who have not declared a specialization (a term used to describe a major, minor, double major, joint major or an honors program – see below). Academic advisors, both professionals and student peers, assist with course selection and program planning in any of our five faculties (Applied Sciences, Arts, Business Administration, Education and Science).

Special advisors, who assist students in academic difficulty, are trained to provide assistance about policies related to academic standing and continuing course withdrawals, readmission after being required to withdraw due to poor academic performance and retroactive withdrawals applications.

Academic Records, Registration and Administrative Services
Through its affiliation with Student Services, Student Academic Resources also provides students with various other administrative services including the following. These services are also available through the web: http://students.sfu.ca.

Student Documents
official and unofficial transcripts of academic record letters of confirmation of registration letters of permission to take courses at another institution ID/Library cards

Changes to Personal Student Data
changes of address and/or telephone numbers changes to names changes to immigration status payment confirmation deposit registration deposit tuition and fees

Course outlines for lower division courses (all credit courses numbered 001 to 299) and for all evening courses are available for pick up on the lower level of the Maggie Benston Student Services Centre, 0100.

Curriculum Renewal
In June 2004, the SFU Senate approved new admission and degree requirements to ensure that all SFU undergraduates in degree programs will take courses designed to enrich their writing and quantitative abilities while also gaining cumulative breadth in science, social sciences and humanities. The new admission requirements (see “Admission and Readmission” on page 33) are intended to ensure that new students are well prepared to succeed in their courses. The new degree requirements come into effect for students admitted to the university in Fall 2006, but some new or modified courses will be available in the 2005/06 courses offered by academic programs. The approved changes and new curriculum will continue to enhance the SFU undergraduate experience, better prepare students for graduate studies, and improve career prospects. For more information, please see the following web site: www.sfu.ca/ugcr.

Programs of Study
Simon Fraser University offers three main types of undergraduate programs: honors programs leading to an honors degree, general programs leading to a general degree, and an extended minor degree. Most departments offer all these types of programs.

To be granted a degree, a student must satisfy certain requirements which ensure a depth of study and a coherent combination of courses. These requirements, called a degree program, are expressed in terms of the number of credit hours in lower and upper division courses to be taken in and outside the subject(s) of concentration. Depending on the extent of concentration in a subject area, a degree program may offer an honors program, a major program, a minor program, or certain combinations.

Students are encouraged to sample a wide range of courses before focusing on a particular area of concentration, but normally must commit themselves to their area(s) before entering the second half of the degree program. Students should be aware of any prerequisite studies for their programs that they may need to undertake in the first four levels. (See the Definitions section following.)

Honors Program
An honors degree requires completion of at least 132 credit hours, completion of an honors program and completion of approximately 48-50 credit hours in specified upper division courses in the honors subject or field, normally taken in the upper divisions. Different honors programs have varying credit hour requirements in the lower division courses. (See faculty and departmental requirements.)

Joint Honors Program
A joint honors degree requires completion of at least 132 credit hours and completion of a specific joint honors program, which would normally consist of a total of at least 50 credit hours in upper division courses taken in two or more disciplines, as specified. Different joint honors programs have varying credit hour requirements in the lower division courses. (See faculty and departmental requirements.)

Major Program
A general degree requires at least 120 credit hours and, normally, completion of a major program. A major program requires approximately 28 to 30 credit hours in upper division courses as specified in the major subject or field. Varying credit hour requirements are needed in the lower division courses for different major programs. (See faculty and departmental requirements.)

Joint Major Program
A general degree may be obtained by completion of 120 credit hours and completion of a joint major program. The specific joint major requires at least 30 credit hours in upper division courses taken in two or more disciplines, as specified. Credit hour requirements in the lower division courses vary for different joint major programs. (See faculty and departmental requirements.)

Double Major Program
A general degree may include completion of two major programs. The student must complete the following:

• the lower division requirements for each of the major subjects selected
• at least 28 hours of upper division courses as specified in each of the two subjects in which the majors are to be claimed
• any other requirements of the particular departments concerned
• the requirements of the faculty in which the student will receive the degree

This permits study for two majors within a single faculty or across faculties. The bachelor’s degree awarded will be determined according to the faculty for which all requirements have been met or, if the requirements of more than one faculty have been met, then from which one of the faculties the student selects. (See Major-Minor Program following.)

Minor Program
A minor requires completion of at least 14 to 18 upper division credit hours as specified in the subject. To qualify for a specific minor, at least seven credit hours of upper division credit used toward the minor must have been completed through Simon Fraser courses. A minor program also requires meeting any stipulated lower division requirements and may be used toward the requirements of a degree program.

Extended Minor Program
This program consists of the lower division requirements for a major, and the upper division requirements for a minor. A student must have their program approved by the extended minor program advisor.

Major – Minor Program
A general degree may include the completion of a major program and of a minor program. The student must complete at least 28 hours of upper division courses as specified in the major subject and at least 14 to 18 hours of upper division courses as specified in the minor subject. The same upper division course may not be used for formal credit in both the major and the minor. The student must complete the lower division requirements for the major subject selected, all other requirements of the major programs, the lower and upper division requirements for the minor selected, and the requirements of the faculty in which the student will receive the degree. This permits the undertaking of a major and of a minor within a single faculty or across faculties.

Double Major and Major – Minor Programs
Credit Value of Courses
In order to give sufficient weight to both majors in a double major program, the student may not apply the same upper division course for formal credit in both majors. Similarly, a student in a major-minor program may not use the same upper division course for formal credit in both the major and the minor. Also, a student undertaking a program consisting of more
Post Baccalaureate Diploma Program

A diploma program should, in general, consist of regular upper division university courses; graduate courses may be included. The study program should be equivalent of one full year or more of university study (30 or more credit hours). A first university degree or the equivalent is normally a prerequisite, but, if stipulated, mature applicants whose experience makes them particularly suited to a program may also be admitted.

Program Admission Requirements

- Completion of a recognized bachelor's degree (in any field of study) with a minimum graduation grade point average of 2.4 from a university in British Columbia or with a minimum graduation grade point average of 2.4 from a university outside of British Columbia, or equivalent.
- Students applying to the University for admission are required to meet undergraduate admission deadlines. Application forms should be accompanied by official documents and a statement of objectives in undertaking a diploma program.

Program Requirements

- Successful completion of an approved program comprised of 30 credit hours of third and fourth year courses, and some graduate courses if appropriate.
- At least 15 credit hours must be in a discipline or subject area which most closely fits the learning goals of the student.
- Minimum grade point average of 2.5 on courses applied toward the diploma.
- Completion of lower division prerequisites, if required.
- Completion of the diploma within five years of admission to the program.

Notes

- Students may complete more than one post baccalaureate diploma program.
- Students should consult with the diploma program advisor regarding availability of courses at the Burnaby campus, Harbour Centre campus, or by distance education.
- Some of the program courses have prerequisites not included in the diploma requirements. Students are responsible for satisfying the prerequisites of all courses in their program.
- Program applicants will need to refer to the current university calendar for detailed information concerning application and registration procedures, fees, program requirements, and course descriptions.
- There are program advisors in each department for that department's diploma programs.

Transfer Credit

- Transfer credit for work done at other institutions, before or after admission to the program, may be approved toward fulfillment of the program provided that at least 18 of the 30 required upper division credit hours, including at least nine credit hours in the student's area of concentration, be taken at Simon Fraser University.
- Transfer credit is normally only valid for approved courses taken within ten years of the diploma student's completion semester.
- Transfer credit for use toward the diploma is granted only on approval of the registrar, the appropriate faculty post baccalaureate diploma committee, and the dean of the appropriate faculty.
- Credit for work done at Simon Fraser University or transfer credit for work done elsewhere prior to admission to the program may be approved provided that at least 15 of the 30 required upper division credit hours, including at least eight credit hours in the student's area of concentration, normally be taken after admission to the program.

Certificate Program

A certificate program consists mainly of regular lower division courses; upper division courses may be included. The program should be the equivalent of between one half and one full year of university study (18 to 30 credit hours).

Program Admission Requirements

- Prospective students must apply to Simon Fraser University for admission and meet the normal admission requirements prior to undertaking a certificate program.

Program Requirements

- Students must maintain a minimum grade point average of 2.0 calculated on all courses applied to the certificate that are taken at Simon Fraser University. Duplicate courses are counted only once.
- Credits applied to one certificate may be applied also to major or minor programs of a bachelor's degree under the normal regulations governing those programs but may not be applied to another Simon Fraser University certificate or diploma.
- Some of the courses have prerequisites not included in the certificate requirements. Students are responsible for satisfying the prerequisites of all courses in their programs. Prerequisite information can be found in the University calendar in the course descriptions section.
- There are program advisors in each department or faculty for the certificate programs. Students intending to pursue a certificate should consult with the program advisor.

Co-operative Education

A co-operative education program consists of four or five work terms to be completed while doing regular academic terms. See “Co-operative Education” on page 240.

Obligation to Declare Majors, Minors or Other Areas of Specialization

Students are expected to obtain formal approval to enter an area of specialization by the time they have earned 60 credits. ‘Specialization’ is a term used to cover programs such as minors, majors, double majors, honors, minors, extended minors, etc., and ‘department’ refers to the faculty or department or school or unit responsible for a program. There are some other programs (e.g., post baccalaureate diplomas, certificates) which may have some additional instruction regarding procedure since the students in these programs fall outside the usual flow of credit hours.

With regard to the area of specialization, students will be classified according to the following categories: Undeclared, Intended, Conditionally Approved, Approved or Undeclared.

Undeclared

This category will be used for any student who, prior to the successful completion of the 61st credit hour, has not recorded an intended specialization or who has not been granted conditionally approved or approved entry to a specialization. 'Undeclared' will not be recorded for any student who has successfully completed 61 or more credit hours. Academic advising for undeclared students is the responsibility of Student Academic Resources.
**Conditionally Approved**

This category identifies a student who will be approved for entry to a specialization upon satisfactory completion of some stated condition(s). Use of this category is at the discretion of a department and will usually be limited to those cases where the student has very limited deficiencies and is taking immediate action to remove them. In granting conditional approval, the department or signing authority will set out to the student, in writing, the condition(s) that must be satisfied for approved entry to the specialization. Students who satisfy the condition(s) will be advised that they have been approved for entry to the specialization. Students who have tried unsuccessfully to complete the condition(s) may be advised that their conditional approval has been withdrawn, or, at the discretion of the academic department, the student may be conditionally approved for an additional semester (or semesters). Academic advising for conditionally approved students is the responsibility of the department offering the particular specialization(s).

**Approved**

This category identifies the specialization of a student who has been formally approved by the department or signing authority for that specialization and may be granted at the discretion of a department or signing authority. Academic advising for approved students is the responsibility of the department offering the approved specialization(s).

**Undecided**

This category is automatically recorded for any student who, upon successful completion of the 61st (or higher) credit hour, has neither an approved nor conditionally approved specialization. A student who transfers to the University and in the first semester exceeds 61 credit hours may have one semester to obtain approved or conditionally approved status. At the discretion of a faculty, option A or option B will be applied to resolve the student’s status.

**Option A**

In the event that undecided status is applied to a student’s record (i.e. there is no approved or conditionally approved program recorded), all references to degree/diploma objectives and faculty affiliation will be removed from the student’s record. Academic advising for undecided students designated under option A is the responsibility of Student Academic Resources, but undecided students are encouraged to approach a department directly, to discuss requirements for conditional or approved entry to a program or specialization.

**Option B**

In the event that undecided status is applied to a student’s record (there is no approved or conditionally approved program recorded) the existing degree/diploma objectives and faculty affiliation will be retained but the student will be required to discuss program objectives with the appropriate faculty advisor before further registrations are permitted with this status. The faculty advisor may allow the student to proceed with undecided status. If, in the opinion of the faculty advisor, the student’s program objectives are unacceptable or unrealistic, the faculty advisor may have the degree/diploma objectives and faculty affiliation removed from the student’s record, and the student may be referred to Student Academic Resources for further advising.

Academic advising for undecided students designated under option B with degree/diploma objectives and faculty affiliation is the responsibility of the appropriate faculty advisor. Academic Advising for undecided students with no degree/diploma objectives or faculty affiliation is the responsibility of Student Academic Resources.

**Convocation**

Convocation is held in June and October annually. Students who fulfill their degree requirements during the fall or spring semesters may attend the June ceremony. Graduates of the summer semester convocate in October. For specific dates, see “Academic Calendar of Events” on page 10, or online at students.sfu.ca/cs/CaIEvents.html

Application for Graduation/Granting of Degree, Certificate or Diploma

Each candidate for a degree, certificate, or diploma must formally apply for graduation. Details on how to initiate the graduation process are contained in the Course Timetable and Exam Schedule published each semester, and are also available online at students.sfu.ca/convocation. See “Academic Calendar of Events” on page 10 for deadlines to apply for or to cancel applications to graduate.

Notification of Award by Senate

Following senate approval, each student who has been awarded a degree, certificate or diploma will receive a letter of confirmation from the registrar.

Convocation Procedure

Information on Convocation can be found at students.sfu.ca/convocation.

---

**Definitions**

The following is a list of the most commonly used terms that new students can find confusing; definitions are grouped under Students, the Academic Year, and Courses.

**Students**

SFU does not classify students as either full time or part time although there are varying course load requirements for many types of financial aid. See “Financial Assistance and Awards” on page 55.

**Qualifying Student**

See “Graduate General Regulations” on page 245.

**Regular Student**

A regular student is one proceeding to a degree, diploma or certificate in any faculty. A regular student may already hold one or more bachelor's degrees.

**Special Audit Student**

Students who do not apply for University admission under the general admission regulations but who wish to audit credit courses may be given entry as special audit students. Special application procedures apply; see “Continuing Studies” on page 238.

**Special Student**

A student already holding a first degree may, as a special student, register in undergraduate courses only. These courses may not be applied toward completion of any certificate, diploma, undergraduate or graduate credential at Simon Fraser University. First time applicants wishing to enrol as special students and students holding a first degree who have previously attended SFU should see “Admission and Readmission” on page 33.

**Visiting and Exchange Students**

A visiting student is a bona fide student of another accredited institution who is permitted to take credit courses only toward a degree, certificate or diploma at the home institution. Applicants who wish to become visiting students must meet all admission requirements and must submit a letter of permission from the registrar of the home institution. A visiting student wishing to become a regular Simon Fraser University student must reapply and meet admission requirements in effect at that time.

**Academic Year**

Trimester – Simon Fraser University offers three full terms within the twelve month calendar year.

Semester – The calendar year is divided into three academic terms of 16 weeks each, called ‘semesters.’ Each semester has its own registration and final examinations. All academic courses in this Calendar are one semester long or fall into one of the shorter sessions, such as intersession or summer session. Students may enter at the beginning of any semester and attend one, two or three semesters in a year. By attending continuously, it is possible for a student who entered from BC high school grade 12 (or equivalent) in the fall 2005 semester to graduate with a bachelor’s degree at the end of the spring 2008 semester. Semesters are referred to by numbers or by names:

- **Semester 1** – spring, January to April, (2005-1)
- **Semester 2** – summer, May to August, (2005-2)
- **Semester 3** – fall, September to December, (2005-3)

To increase the accessibility of the summer program (May-August) to teachers and others, the summer semester is enriched by two, two-month sessions, namely intersession (May-June) and summer session (July-August). These programs are offered in addition to the regular four month summer semester. The following illustrates an academic year at SFU.

- **Fall semester:** September – December
- **Spring semester:** January – April
- **Summer semester:** May – August
- **Intersession:** May – June
- **Summer session:** July – August
Semester codes – The PeopleSoft student administration system used at Simon Fraser uses numeric codes for semesters. Students will often encounter these codes when using go.sfu.ca, the online student services portal. Here are the term codes for the upcoming year:

- 1057 = fall 2005
- 1061 = spring 2006
- 1064 = summer 2006

The codes can be interpreted as follows:

- 1 represents the 21st century
- 05 = year
- the final digit is the term: 1 for spring, 4 for summer and 7 for fall.

Levels – Undergraduates in Canada are traditionally classified as first year (Freshman), second year (Sophomore), third year (Junior), or fourth year (Senior) students. Since ‘year’ does not apply to the trimester system, the student’s progression is expressed in levels. ‘Level’ refers to the status of a student’s program. Each level normally equals one semester’s work with a full course load; a typical four year bachelor’s degree program consists of eight levels. The first four (i.e., the first 60 credit hours) are lower divisions. Levels 5 and above are upper divisions. The term ‘level’ is not used for graduate programs. Usually students in levels 1 and 2 take 100 series courses; those in levels 3 and 4 take 200 series courses; those beyond level 4 take 300 and 400 series courses.

Courses

Subject – A subject (or ‘discipline’) is a body of knowledge with arbitrary boundary lines, e.g. philosophy, chemistry or psychology. For convenience, professors of a subject are usually grouped together in a department.

Prerequisite – A prerequisite is a requirement needed to register in a course.

Corequisite – A corequisite is a course to be taken at the same time as another course.

Division – ‘Division’ relates to undergraduate courses: those numbered 001 to 299 inclusive are lower division courses; those numbered 300 to 499 are upper division courses. Graduate courses are numbered in the 500 to 999 series. In certain instances, upper division courses may be taken in the lower divisions and lower division courses in the upper divisions. Refer to specific regulations pertaining to requirements for degrees, certificates or diplomas.

Course Numbering – Each subject is divided into courses usually offered in semester length units. Each course is identified by a subject name followed by a course number, the number of credit hours, and course title, e.g. ENGL 103-3 Introduction to Drama. The first course number digit represents the level of the course; the fourth digit indicates the credit hours. For example, ENGL 103-3 is a first level course offering three credit hours.

Lectures, Tutorials and Laboratories – Although there are variations among departments, instruction in lower division courses combines a large lecture section with small tutorial groups. The large lecture enables as many students as possible to hear the very best teachers. The small tutorial groups provide more personal instruction and an opportunity for discussion of readings and lecture material. A typical course consists of two lectures and one tutorial a week. Notable exceptions are the sciences and languages, where a laboratory may be involved.

Credit Courses – These courses carry credit hours and count toward the total required for a degree, certificate or diploma, subject to the regulations governing the credential.

Credit Hours – Credit hours are assigned to each course; most have three credit hours. A normal course load for a student in full attendance in a semester is 15 credit hours. Credit hours are also called semester hours, credits, hours or credit hours. Requirements for credentials (e.g., degrees, diplomas and certificates) are partially expressed as credit hours.

The credit hour weight is shown for each course as follows.

Subject: Mathematics (MATH)
Course Number: 232
Credit hours: 3

Credit-Free Courses – These courses carry no credit and do not count toward a degree, certificate or diploma. At times, they are termed ‘non-credit courses.’

Distance Education Courses – Many courses are available as distance education courses. The majority of these are print-based. Some may also have audio and/or video support. Increasingly, educational technologies (e.g. computer conferencing) are being incorporated as courses are developed and revised. The program parallels the campus semester system of the University, with the same sixteen week period for course completion.
Admission and Readmission

Introduction
This section contains five main areas as noted in the table of contents.

- The Admission Process describes the “how and when” of the various stages involved in applying to the University.
- All applicants details those admission requirements or policies applicable to any applicant.
- The next three sections — British Columbia, Canada and International — provide admission requirements for the respective areas. Within each section, requirements are provided for secondary school, college, and university-level applicants.
- Finally, Readmission explains the requirements and processes to be followed by previously admitted students wishing to re-commence their studies.

Admission Process
Those who have previously attended Simon Fraser University but who fit into any of the following categories must apply for re-admission or reactivation (see “Reactivation and Readmission” on page 44).

- students who have not registered in courses at the University during the previous three semesters; or
- students who completed all of their degree or diploma programs at the University and wish to take further courses; or
- students who completed further academic studies at a postsecondary institution during the time away from SFU; or
- students who were involuntarily withdrawn; or
- students who voluntarily withdrew from first semester of attendance (unless they withdrew under extenuating circumstances, after the application deadline for the subsequent semester); or
- students who were admitted for a single semester only (e.g. concurrent studies students, visiting students, etc.);

In all other cases students may register directly in courses.

Protection of Privacy
Simon Fraser University gathers and maintains information used for the purposes of admission, registration and other fundamental activities related to being a Simon Fraser University community member and attending a public post-secondary institution in the Province of British Columbia.

In signing an application for admission, all applicants are advised that the information they provide and any other information placed into the student record will be destroyed. Irreplaceable documents will be returned to the applicant if requested at the time of application.

Retention of Documents
The documents which students supply to support applications for admission will be retained for three semesters, following the semester to which application is made. Then, application forms, transcripts and other materials related to applications will be destroyed. Irreplaceable documents will be returned to the applicant if requested at the time of application.

How to Apply
To apply for admission, go to our website at http://students.sfu.ca, which will link you to the Post-secondary Application Service of BC (PASBC). There, you can begin your application by entering basic academic and biographical data. From PASBC, you’ll move to the Simon Fraser part of the web application, and tell us about your intended program of studies. You can pay all application fees by credit card. After your application is acknowledged, and if you’re a Canadian grade 12 applying for the Fall semester, you will be invited to report your grades. Application fees may be sent at the time application is made or soon after. If payment is made later, please quote the reference number that is given to the applicant when the submission is acknowledged by the University.

Required Documents
The following supporting official documents must also be submitted from the issuing institution before any application will be considered.

- official copy of the appropriate school leaving certificate (e.g. BC Secondary School transcript of grades)
- official transcripts from all post-secondary institutions attended, whether or not the work was completed
- official reports of any standard tests written.

All documents must be originals. Photocopies are not acceptable. Replaceable documents submitted with an application become the property of the University and will not be returned. Irreplaceable documents will be returned to the applicant if requested at the time of application.

Official translations, certified by an educational or embassy official, or made by a certified translator are required for records not in English or French. For applicants residing in BC, translations should be completed by a member of the Society of Translators and Interpreters of British Columbia (please view their website at www.stbc.org), or through MOSAIC Translation Services at 604.254.0469.

Applicants should submit applications and any available documents as early as possible but not more than twelve months before the semester they intend to begin studies. The deadlines for receipt of applications and documents are given below and in

Contents

Introduction 33
Admission Process 33
How to Apply 33
Application Deadlines 34
Application Fee 34
Offers of Admission 34
All Applicants 35
English Language Requirement 35
Diverse Qualifications Admission Policy 35
Programs for Mid-Career Adults 35
British Columbia and Yukon Applicants 36
Admission from British Columbia and Yukon Secondary Schools 36
Admission from BC and Yukon Community and University Colleges 38
BC University Transfer 38
Visiting Students 39
BC University Degree Holders 39
Special Categories 39

Applicants from Other Canadian Provinces 40
Canadian High School Requirements 40
Applicants from Canadian Colleges/CEGEP 41
Canadian University Transfer 41
Canadian University Degree Holders 41
International Applicants 41
Academic Documents 41
Requirements by Country 41
International University or College Transfer 43
International University Degree Holders 43
Advanced Placement Program and International Baccalaureate 43
 Reactivation and Readmission 44
Holders of Simon Fraser University Bachelor’s Degrees 44

Simon Fraser University 2005 - 2006
Application Deadline
January 31, 2007

English Language Requirement
Applicants whose primary language is not English must take a standardized English test (see English Language Requirements) and have the results submitted directly from the testing agency to Simon Fraser University. In some circumstances, this requirement will apply to students who have attended secondary schools or post-secondary institutions in Canada.

Starting with admission to the 2006 Fall semester, all applicants must also meet English literacy and quantitative skills requirements (subject to Senate approval).

Application Deadlines

<table>
<thead>
<tr>
<th>Semester</th>
<th>Application Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2006</td>
<td>September 30, 2005</td>
</tr>
<tr>
<td>Summer 2006</td>
<td>January 31, 2006</td>
</tr>
<tr>
<td>Intersession 2006</td>
<td>January 31, 2006</td>
</tr>
<tr>
<td>Summer Session 2006</td>
<td>January 31, 2006</td>
</tr>
<tr>
<td>Fall 2006</td>
<td>May 1, 2006</td>
</tr>
<tr>
<td>Spring 2007</td>
<td>October 2, 2006</td>
</tr>
<tr>
<td>Summer 2007</td>
<td>January 31, 2007</td>
</tr>
<tr>
<td>Intersession 2007</td>
<td>January 31, 2007</td>
</tr>
<tr>
<td>Summer Session 2007</td>
<td>January 31, 2007</td>
</tr>
</tbody>
</table>

Application Fee
Level 1
Each time an applicant applies for admission or readmission, a $35 application fee is required. This fee, non-refundable and not applicable to tuition fees, must accompany the application for admission or be paid soon after making an application.

Level 2
An application fee of $85 is required for all applicants whose academic records, in whole or in part, originate outside of British Columbia. (A level 1 fee is assessed if the documents originate from a Canadian high school, or if the applicant is participating in a recognized exchange program between SFU and another institution.)

This fee is non-refundable and not applicable to tuition fees.

Offers of Admission
Admission offers are valid only for one semester. Applicants who are admitted but do not register in classes or who register but withdraw from classes before or during their first semester must apply again if they wish to attend a subsequent semester.

Transfer Credit
Transfer credits are granted on admission on the basis of work at another recognized institution; transfer credits reduce the total required credits for an SFU degree, diploma or certificate. Transfer credit should not be confused with advanced standing. Transfer credit is often given without any concomitant advanced standing; the reverse may also be true.

Regulations
In most cases, total transfer and course challenge credit may not exceed 60 credit hours, and may not include more than 15 as upper division work. Within these limits, credits may be transferred for all courses passed, which are acceptable under University policies.

Transfer credit is not used in calculating the cumulative grade point average (CGPA).
Transfer credit for ungraded passes (e.g. pass/fail) will be granted only if the course has been previously articulated for transfer credit and if all students in the course are graded in a similar manner.
Transfer credit is not granted for credit assessed by other institutions, for knowledge acquired outside formal instruction, but course challenge credit may be obtained at Simon Fraser University for such work or knowledge.

Students who are attending, or who have attended Simon Fraser University should note that in addition to these regulations:
- work taken after initial registration must be passed with a grade of C (2.0 or 60%) or higher to receive transfer credit; and
- students wishing to complete transfer credit after initial registration must obtain permission in advance, using the form available from Student Services or http://students.sfu.ca.

Please see “Courses at Other Institutions/Letters of Permission” on page 45 for more information. Students completing certificates or diplomas should note that each program has its own specific restrictions on the amount of transfer credit permitted. Consult the appropriate sections in the Calendar for these limitations.

Special transfer credit regulations apply to the bachelor of general studies degree, the bachelor of education degree, the bachelor of applied science degree in engineering science, honors degree programs and to students attending other universities on formal exchange programs. Refer to the Faculty of Arts and Social Sciences, Faculty of Education, and Faculty of Applied Sciences sections respectively and “Study Abroad” on page 17.

An applicant with transfer credit is advised that the courses transferred, together with those subsequently taken at SFU, must meet the general and specific requirements of the faculty and department in which he/she chooses to major or honor. Some awarded transfer credit may be designated ‘general elective credit’. Individual faculties may restrict the amount of general elective credit that may be counted toward a degree in that faculty. The applicant should not assume that he/she will complete the degree with a number of credit hours equal to the difference between total hours required for the degree and transferred hours. Although this calculation will usually be correct for a student who remains within a field of study, it will not necessarily be correct for a student who changes fields.

Transfer credit is designated as type one, two, or three. Type one is assigned credit, used for an SFU equivalent. Type two is unassigned credit in a subject area, used for courses without an SFU equivalent, but which are acceptable to a department as fulfilling subject requirements for a general or honors degree in that department. For example, ‘BISC 1XX 3’ means that three credit hours in Biological Sciences have been granted. Type three is general elective credit, used for courses which are judged to be transferable but do not fulfill specific faculty departmental requirements. General elective credit is counted toward the total required for the degree. Individual faculties may restrict the amount of general elective credit that may be counted toward a degree in that faculty.

Individual departments may require students to repeat prerequisite courses for which they have received transfer credit for a D grade. The repeated courses will show on the student’s permanent record, but double credit will not be granted.

Advanced Standing
Advanced standing is placement to a certain level in a subject area granted on admission. The department concerned examines the applicant’s previous work, or asks him/her to take a placement test, and then places the applicant at a certain level in the sequence of courses in the department.

Program Approval
Newly admitted students who wish to take either a post baccalaureate diploma or a further undergraduate degree must obtain program approval from their faculty or department prior to registering in courses.

Enrolment Limitations
Examples of recent enrolment limits and resulting admission cut-offs for admission are as follows.

<table>
<thead>
<tr>
<th>Basis of Admission</th>
<th>Limit</th>
<th>Resulting Minimum Acceptance Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC and Canadian grade 12 graduation</td>
<td>2420</td>
<td>80%</td>
</tr>
<tr>
<td>BC college transfer</td>
<td>830</td>
<td>2.70</td>
</tr>
<tr>
<td>degree holders and transfers from universities</td>
<td>455</td>
<td>2.70</td>
</tr>
<tr>
<td>other</td>
<td>95</td>
<td>n/a</td>
</tr>
<tr>
<td>Total</td>
<td>3800</td>
<td></td>
</tr>
</tbody>
</table>

Enrolment limits for any semester are subject to revision without notice.

Completion of the minimum requirements does not in itself guarantee admission to any course, program, department or faculty at the University. In those instances where the number of qualified applicants exceeds the number that, in the opinion of the University, can be accommodated, the University reserves the right to select from among the qualified applicants.

Admission and Approval into an Academic Program
Students may apply for academic program admission in one of five faculties: applied sciences, arts and social sciences, business administration, education and science (health sciences currently offers only graduate programs).

Applicants may indicate an alternate program in the event that they are not selected to the program of their first choice. Normally, this alternate program will be in a different faculty.

For example, a student’s first choice may be the BBA program in the Faculty of Business Administration. Due to insufficient space, this is not approved. The student’s second choice is the BSc program in the Faculty of Science. Due to the lack of a required course, this is not approved either. The University might choose to offer the applicant admission to a program that he or she did not choose. In this example, the student is offered entry to the BA program in the Faculty of Arts and Social Sciences. The student may register in courses, and in a subsequent semester, may proceed to seek entry to either the BBA or BSc, or may complete a BA in the Faculty of Arts and Social Sciences.

Students are permitted to change faculties during the course of their studies, so those who are not selected to their chosen faculty may transfer between faculties later in their studies.
All Applicants

The following admission requirements are extracted from the more complete regulations approved by senate. Authority for interpretation of the regulations rests with the senate committee on undergraduate studies; the University reserves the right to reject or accept any applicant.

All percentages stated are based on a pass mark of 50%. For schools and colleges operating on a pass mark other than 50%, the percentage required for admission is adjusted.

Applicants for off-campus and distance education programs must follow the same application procedures and meet the same requirements as regular on-campus students. Specific details on these programs are available in brochures published each semester (see Continuing Studies).

British Columbia Medical Services Plan

All students must maintain British Columbia Medical Services Plan (BC MSP) while attending Simon Fraser University. The University is not liable for any medical or dental expenses while students are attending SFU. Students from outside British Columbia, particularly International and USA students, must obtain Visitors to Canada medical insurance to provide them with coverage for the first 90 days upon arrival in Canada. This 90 day waiting period is required by the BC government in order to process any application for BC MSP and is governed by the BC MSP Act. The BC MSP card will become effective 90 days after your arrival in BC and the temporary Visitors to Canada medical insurance will expire accordingly.

Students from other Canadian provinces must also obtain BC MSP. They should check with their respective provincial medical services plan to verify what coverage would apply until they receive their new BC MSP card.

English Language Requirement

English is the language of instruction and communication in the University. Accordingly, an applicant whose primary language is not English, or whose previous education has been conducted in another language, must demonstrate a command of English sufficient to meet the demands of classroom instruction, written assignments and participation in tutorials and discussions.

The University will take into account the following factors in assessing an applicant's facility in the English language.

- the primary language of the applicant (the language ordinarily spoken in the home and in the workplace)
- the duration of residency in an environment in which English is the predominant language
- the duration of study and the language of instruction in any secondary and post-secondary educational institutions
- the results obtained in any academic secondary and/or post-secondary courses in which a high standard of English is required.

Applicants will be deemed to have satisfied the English language requirement if they

• achieve an interim or final grade of 86% (A) or higher on a senior secondary school (grade 12) English or English literature course in a Canadian province other than Quebec;
• achieve a final grade of B or better on a post secondary course taken at a BC institution which transfers to Simon Fraser University as three or more English credits; or
• graduate from a bachelor's or higher degree program at a recognized university in which the language of instruction and examination is English; or
• have resided for at least four years in an English speaking environment.

Applicants who consider English their primary language may submit an exemption form available from Student Services at http://students.sfu.ca

Required English Tests

Applicants who, in the opinion of the University, do not have sufficient experience or skills in English will be required to achieve a satisfactory score on one of the following tests.

- IELTS (International English Language Testing System) with a minimum score of 6.5 on the Academic Modules; or
- TOEFL iBT (Test of English as a Foreign Language internet based test) with an overall score of 88 or better with a minimum score of 20 in each of the four components (listening, speaking, writing, reading); or
- TOEFL CBT (Test of English as a Foreign language computer based test) with a minimum score of 230 including a minimum essay score of 4.5; or
- TOEFL iBT with a minimum score of 250; or
- TOEFL iBT with a minimum score of 70 (no minimum in any sub-test) and satisfactory completion of our English Bridge Program; or
- TOEFL CBT with a minimum score of 207 and satisfactory completion of our English Bridge Program.

Test scores must be sent directly from the respective testing agency to Simon Fraser University.

English Bridge Program

This ten-week intensive English program is offered by Simon Fraser University's Language Training Institute in the Faculty of Arts and Social Sciences, on the main Burnaby campus. Emphasizing the English language skills needed in the academic setting, the program is designed for students who are otherwise fully admissible to the University but who do not completely meet the English language requirements. For applicants who are given conditional university admission, successful completion of the English Bridge Program leads to automatic admission to an undergraduate program in the following semester.

For more information, contact SFU International: fax 604.291.5880; sfu_international@sfu.ca; www.sfu.ca/international

Diverse Qualifications Admission Policy

Each semester, many more admission applications are received than can be accepted. Academic performance is the main criterion for admission and is used exclusively in 90% of cases. However, it is recognized that some candidates have other attributes and achievements which should be considered in determining admission. The University seeks to admit not only applicants who are academically very well qualified but also those who meet minimum admission standards and have

• demonstrated commitment and/or excellence in other endeavours, or
• presented a clear and valid reason for attending the University, or
• succeeded in their studies in spite of difficult circumstances.

The University will select up to 10% of new students, taking into account these diverse qualifications. To be considered for admission under this policy, complete a personal information profile (see “Personal Information Profile” below) and submit it with one letter of reference.

This admission policy is not available to Faculty of Science applicants.

This policy applies only to candidates who meet the published minimum academic admission requirements, the English language requirement, and the literacy and quantitative skills requirements.

Personal Information Profile

To complete your personal information profile, follow the directions given at students.sfu.ca/adm/dq.html

Students with Disabilities

Academically qualified students who have a physical, mental health, sensory or specific learning disability are encouraged to attend Simon Fraser University. The University will ensure that applicants are not denied admission as a result of their disability and that, where appropriate, accommodation will be made with respect to admission criteria. Prospective students with a disability are encouraged to contact the Centre for Students with Disabilities at 604.291.3112.

Programs for Mid-Career Adults

Integrated Studies Programs for mid-career adults are cohort-based, employer-sponsored undergraduate degree completion opportunities leading to the Bachelor of General Studies degree. A flexible admission policy allows recognition of non-traditional learning experiences and a set curriculum enables degree completion within a pre-established time frame — usually three years — while candidates continue to work full time.

Mature applicants with a minimum of 5-8 years of work experience, and support of their employer to complete an undergraduate degree, are encouraged to contact the program director, Integrated Studies Programs, at 604.291.5072. For information about programs currently available, see “Integrated Studies Program” on page 146.
### British Columbia and Yukon Applicants

Applicants from BC or Yukon may be admitted from:
- secondary school (see below)
- community or university college (see “Admission from BC and Yukon Community and University Colleges” on page 38)
- another university (see “BC University Transfer” on page 38)

Several special categories of admission also exist for BC applicants (see “Special Categories” on page 39).

### Admission from British Columbia and Yukon Secondary Schools

All applicants (except as noted) must graduate from secondary school before entering SFU. Students may apply for general admission (Faculty of Arts and Social Sciences requirements) or for direct entry to a number of programs as shown on the chart below.

### BC and Yukon grade 11 and 12 course requirements

<table>
<thead>
<tr>
<th>Academic Program and Faculty</th>
<th>Grade 11 requirements</th>
<th>Admission average calculated on five best courses as specified below</th>
<th>Grade 12 requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not used to calculate</td>
<td>List 1</td>
<td>List 2</td>
</tr>
<tr>
<td></td>
<td>admission average</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty of Applied Sciences</td>
<td>English 11 or Français première langue 11</td>
<td>one course with 80%²</td>
<td>one math course with 70%¹ or one science course</td>
</tr>
<tr>
<td></td>
<td>language 11³</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>principles of mathematics 11 (or applications of mathematics 12)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>science 11⁴</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computing Science</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geographic Information</td>
<td>English 11 or Français première langue 11</td>
<td>one course with 80%²</td>
<td>one math course with 70%¹ or one science course</td>
</tr>
<tr>
<td>Science</td>
<td>language 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Studies</td>
<td>principles of mathematics 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty of Applied Sciences</td>
<td>science 11⁴</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering Science</td>
<td>English 11 or Français première langue 11</td>
<td>one course with 80%²</td>
<td>principles of mathematics 12 with 70%¹</td>
</tr>
<tr>
<td>Faculty of Applied Sciences</td>
<td>language 11³</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>principles of mathematics 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>chemistry 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>principles of physics 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kinesiology</td>
<td>English 11 or Français première langue 11</td>
<td>one course with 80%²</td>
<td>one math course with 70%¹</td>
</tr>
<tr>
<td>Faculty of Applied Sciences</td>
<td>language 11³</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>principles of mathematics 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>chemistry 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>principles of physics 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interactive Arts and</td>
<td>English 11 or Français première langue 11</td>
<td>one course with 80%²</td>
<td>principles of mathematics 12 with 70%¹</td>
</tr>
<tr>
<td>Technology</td>
<td>language 11³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TechOne</td>
<td>principles of mathematics 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty of Applied Sciences</td>
<td>science 11⁴</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All programs² in the</td>
<td>English 11 or Français première langue 11</td>
<td>one course with 80%²</td>
<td>two courses</td>
</tr>
<tr>
<td>Faculty of Arts and Social</td>
<td>language 11³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sciences</td>
<td>principles of mathematics 11 (or applications of mathematics 12) with 70%¹</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>science 11⁴</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All programs in the</td>
<td>English 11 or Français première langue 11</td>
<td>one course with 80%²</td>
<td>principles of mathematics 12 with 70%¹</td>
</tr>
<tr>
<td>Faculty of Business</td>
<td>language 11³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administration</td>
<td>principles of mathematics 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>principles of physics 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All programs in the</td>
<td>English 11 or Français première langue 11</td>
<td>one course with 80%²</td>
<td>principles of mathematics 12 with 70%¹</td>
</tr>
<tr>
<td>Faculty of Science</td>
<td>language 11³</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>principles of mathematics 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>chemistry 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>principles of physics 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty of Education</td>
<td>Entry is restricted to those who have at least 76 credits and are selected for entry to the Professional Development Program, or who have a first degree and are approved to PDP or another program in the Faculty.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 If you have a grade of 60 to 69% you must either:
• Score at least 70% in a Diagnostic Quantitative Skills Test taken within your first semester at SFU.
• Achieve at least a C grade in a Foundational Quantitative Skills course taken within your first 30 credits at SFU.
2 If you have a grade of less than 80% you must score 5 on the essay component of the Language Proficiency Index (LPI) test, with a minimum score of 60% on parts 1, 2, and 3. You may still be admitted with an LPI score of 4 but will be required to take a Foundational Academic Literacy (FAL) course once at SFU. For details on the LPI, see www.ares.ubc.ca/LPI/index.html
3 Language 11 includes beginner’s language 11, American sign language 12, and language 12 courses
4 Science 11 = applications of physics 11 and 12, biology 11, chemistry 11, earth science 11, forests 11, IB environmental systems 11, principles of physics 11
5 Programs in the School for the Contemporary Arts have additional requirements, such as auditions or portfolio assessments. For further information, see www.sfu.ca/sca/
Literacy and Quantitative Skills Requirements

Literacy
In addition to the English Language requirement, if applicable, students seeking entry to degree programs must meet one of the following requirements:

- 80% or better in English 12;
- 70 to 79% in English 12 and a Language Proficiency Index (LPI) test score of 4 on the essay component, with a minimum score of 60% on each of parts 1, 2, and 3; or
- 60 to 69% in English 12 and an LPI score of 5 on the essay component and a minimum score of 60% on each of parts 1, 2, and 3; or
- 60 to 69% in English 12 and a Language Proficiency Index (LPI) test score of 4 on the essay component, with a minimum score of 60% on each of parts 1, 2, and 3, and completion with a C grade or higher of the Foundations of Academic Literacy (FAL) course once at SFU.

Quantitative Skills Competency
SFU degree programs require specific high school math courses for admission (see the course requirements table above).

- A minimum grade of 70% is required in these courses.
- Students with a grade of 60 to 69% in required math courses may still be admitted, but must meet one of the following two requirements:
  - achieve a score 70% or higher in a Diagnostic Quantitative Skills Test taken within their first semester at Simon Fraser.
  - alternatively (or if they score less than 70% in the Diagnostic Quantitative Skills Test) they must achieve at least a C grade in a Foundational Quantitative Skills course taken within their first 30 credits at Simon Fraser. If necessary, students may repeat this course once within their first 45 credit hours.

Note: this requirement takes effect for entry to the 2006 Fall semester (subject to Senate approval).

Minimum Admission Requirements
The minimum admission average will vary depending on the number of applications received, and on spaces available. In no case will admission be offered to an applicant whose average is less than 67%.

Additional Information for BC Secondary School Applicants
Independent Schools
The University accepts applications from students attending independent schools adhering to the BC secondary school curriculum. Applicants must have written any secondary school examinations administered by the provincial Ministry of Education in courses used towards graduation. Examination results will be evaluated in the same manner as if the applicant were attending a public secondary school.

Advanced Placement or International Baccalaureate Examinations
BC secondary school students taking these programs should see “Advanced Placement Program and International Baccalaureate” on page 43. BC Adult Graduation Diploma
This credential is available to adults who take courses to complete graduation through a secondary school, adult education centre or a community college.

Applicants who have completed the diploma and who are at least 19 years of age may be admitted if they have completed:
- four courses (16 credits) at grade 11 or advanced level to include English, mathematics, social studies or First Nations 12, an experimental or laboratory science
- four courses (16 credits) at the grade 12 or provincial level to include English and three additional subjects selected from: biology, mathematics, chemistry, English literature, languages, statistics, geography, history, physics

All four grade 12 or provincial level subjects must be graded: a minimum average of C+ or 67% is required, based on the Ministry of Education grading scale.

Entry requirements to business administration, computing science, engineering science, kinesiology, TechOne and the Faculty of Science parallel those for BC secondary school graduates.

BC Calculus Examination Certificate
All prospective SFU, University of BC, University of Northern BC and University of Victoria students who have completed, or who are registered in, a secondary school calculus course are eligible to write a calculus challenge exam. Students who pass this exam will receive an SFU-UBC-UNBC-UVic Calculus Challenge Examination Certificate that permits them to obtain calculus transfer credit at one of these universities. Secondary school students can write the exam, which must be done prior to entering one of the four participating BC universities. Only one attempt to write this exam is permitted. The exam’s resulting grade will be converted into the individual university’s equivalent grade. These equivalencies are noted on the certificate.

Calculus Course Credit
A student who has passed the calculus challenge exam and is registered at Simon Fraser University may be awarded transfer credit: MATH 151 (3). Students already eligible for transfer credit because of high AP or IB scores will keep this eligibility regardless of their examination score and can waive the examination score and/or credit.

Examination Locations, Schedule
Each year a university will host the calculus challenge examination. Exams are held twice a year. The April exam is held at participating high schools, or at the host university. The August exam takes place only at the host university.

Application to Write the Exam
Application to take the exam must be made to the mathematics department the university that is hosting the examination in that year.

Examination Information
The exam is three hours in duration. For further enquiries about writing the calculus examination and the Calculus Examination Certificate, contact: Math Challenge 151, Department of Mathematics, 8888 University Drive, Simon Fraser University, Burnaby, BC, V5A 1S6; 604.291.3332 Tel; 604.291.4947 Fax; or e-mail fabric@sfu.ca.

Upgrading BC Grade 12 Grades
Applicants who wish to improve their grades in BC grade 12 courses may do so in accordance with Ministry of Education policies, except that the final grade in a provincially-examinable course may not be increased by taking an equivalent college course. For example, an applicant who has achieved a mark of 66% in principles of mathematics 12 may not count in her/his admission average a subsequent, higher grade (say ‘B’ or 73%) in an ABE provincial level mathematics course taken through a college.

Literacy and Quantitative Skills

<table>
<thead>
<tr>
<th>Course Lists</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>List 1</strong></td>
</tr>
<tr>
<td><strong>Mathematics Group</strong></td>
</tr>
<tr>
<td>principles of mathematics 12, AP calculus AB/BC 12, AP statistics 12, IB mathematics with calculus A/B</td>
</tr>
<tr>
<td><strong>Humanities Group</strong></td>
</tr>
<tr>
<td>English literature 12, Francais communication et litterature 12, AP Spanish literature 12,</td>
</tr>
<tr>
<td><strong>Sciences Group</strong></td>
</tr>
<tr>
<td>biology 12, chemistry 12, geology 12, principles of physics 12, AP computer science A/AB 12, AP environmental science 12, IB computer science studies 12, IB environmental systems 12</td>
</tr>
<tr>
<td><strong>Social Sciences Group</strong></td>
</tr>
<tr>
<td>geography 12, history 12</td>
</tr>
<tr>
<td><strong>List 2</strong></td>
</tr>
<tr>
<td><strong>Fine and Performing Arts Group</strong></td>
</tr>
<tr>
<td>art foundations 12, choral music 12, dance choreography 12, dance performance 12, drama film and TV 12, instrumental music 12, music composition and technology 12, theatre performance 12 (acting, directing and script development, technical theatre, or theatre management), studio arts 12 (drawing and painting, ceramics and sculpture, print-making and graphic design, fabric and fibre), visual arts media arts 12, writing 12</td>
</tr>
<tr>
<td><strong>Humanities Group</strong></td>
</tr>
<tr>
<td>comparative civilizations 12, IB theory of knowledge (philosophy) 12</td>
</tr>
<tr>
<td><strong>Sciences Group</strong></td>
</tr>
<tr>
<td>calculus 12, forests 12, information technology 12</td>
</tr>
<tr>
<td><strong>Social Sciences Group</strong></td>
</tr>
<tr>
<td>BC First Nations 12, economics 12, journalism/media 12, law 12, AP comparative government and politics 12, AP psychology 12, AP US government and politics 12, IB business and organization 12, IB psychology, IB social anthropology 12</td>
</tr>
</tbody>
</table>

| List 3 |
| **List 3** |
| **International Baccalaureate** |
| IB mathematics with calculus A/B, IB physics, IB chemistry, IB biology, IB computer science, IB economic and business society, IB psychology, IB social studies, IB history, IB geography, IB English, IB French, IB Spanish, IB music, IB art, IB media arts, IB drama, IB film, IB dance, IB theatre |
| **List 4** |
| **Humanities Group** |
| English literature 12, Francia communication et literature 12, AP Spanish literature 12, |
| **Sciences Group** |
| biology 12, chemistry 12, geology 12, principles of physics 12, AP computer science A/AB 12, AP environmental science 12, IB computer science studies 12, IB environmental systems 12 |
| **Social Sciences Group** |
| geography 12, history 12 |

Simons Fraser University 2005 • 2006
Admission from BC and Yukon Community and University Colleges

BC community college students may apply for entry to a number of academic programs. Applicants to degree programs must meet the literacy and quantitative skills requirements (see “Literacy and Quantitative Skills Requirements” on page 38).

Applicants who met the University’s admission requirements after completing grade 12 may be admitted on the basis of those requirements, provided that they have attempted fewer than 30 semester hours of transfer credit. However, they will not be admitted if they present three or more transferable courses equal to nine or more credit hours with an average of less than 2.0 or 60%.

- Arts and Social Sciences, Faculty of; all academic programs (see “Faculty/Program Admission Requirements” on page 38)
- Business Administration, Faculty of (see “Business Administration, Faculty of” on page 38)
- Communication, School of (Faculty of Applied Sciences) (see “Communication, School of” on page 38)
- Computing Science, School of (Faculty of Applied Sciences) (see “Computing Science, School of” on page 38)
- Engineering Science, School of (Faculty of Applied Sciences) (see “Engineering Science, School of” on page 38)
- Kinesiology, School of (Faculty of Applied Sciences) (see “Kinesiology, School of” on page 38)
- Science, Faculty of: all departments and schools (see “Science, Faculty of” on page 38)

Faculty/Program Admission Requirements

Arts and Social Sciences, Faculty of Students must complete at least one full year (30 credit hours) of transferable work with a minimum average of 2.00 or 60%. Up to 60 credit hours of transfer credit will be awarded for acceptable passed courses.

Business Administration, Faculty of Students planning to enter the BBA degree program must meet the same requirement as those given for the Faculty of Arts and Social Sciences, except that the equivalents of the following courses must be passed with a C- grade or higher:

- BUEC 234-3
- BUS 257-3, BUS 251-3, BUS 272-3
- ECON 103-3, ECON 105-3
- MATH 157-3 (or MATH 151-3 or MATH 154-3) and two of ENGL 101-3, 102-3, 103-3, 104-3, 105-3, 199-3, PHIL 101-3, 100-3, 120-3.

Admission is highly competitive. Most transfer students enter the University’s Faculty of Arts and Social Sciences before they are approved into the Faculty of Business Administration (see “Business Administration, Faculty of” on page 38).

Communication, School of Admission requirements are the same as those for the Faculty of Arts and Social Sciences (see above).

Computing Science, School of Students applying for the computing science program may be admitted directly based on excellent college grades, or may be offered general University admission with the opportunity to apply for later admission based on Simon Fraser University grades. Admission is highly competitive. For direct entry from college, students must complete at least 30 credit hours of transferable credit including seven courses that receive the following transfer credit:

- PHIL 100 or 120 or three credits in English
- two of MATH 101, 201, MATH 151, 152 and 232
- two of CMPT 101, 150, 201, 250 and 275
- three credits in biological sciences, chemistry, earth sciences, kinesiology, or physics
- three credits in anthropology, archaeology, communication, Canadian studies, criminology, economics, history, political science, psychology, sociology or women’s studies

Admission will be based on a grade point average calculated on the best seven courses satisfying these requirements. No course may be included in the average if it is considered a duplicate of any course previously taken.

Engineering Science, School of Students planning to enter the BASc degree program must complete at least 30 credit hours in transferable science or engineering courses. Admission is highly competitive. Students must apply directly to the School of Engineering Science as well as to the University.

Interactive Arts and Technology Interested BC community college students should see www.surrey.sfu.ca and follow the links for transfer students.

Kinesiology, School of Students planning to enter the BSc (Kinesiology) degree program must complete at least 30 semester hours of transferable credit.

Admission is competitive. A total of approximately 120 students are approved into the kinesiology major program per year. Most students who wish to be kinesiology majors are typically admitted to the Faculty of Arts and Social Sciences, or to the Faculty of Science first, and then they apply to kinesiology after achieving a criterion grade point average in a specified set of courses. Please see “Internal Transfer” on page 140 for details.

However, a small number of students may be admitted directly to the kinesiology major program based on excellent grades in courses which transfer to Simon Fraser University as:

- BISC 101-4
- MBB 221-3
- CHEM 121-4, 122-4, 281-4
- KIN 142-3
- MATH 151-3, (or 154-3), 152-3 (or 155-3)
- PHYS 101-3, (or 120-3), 102-3, (or 121-3), 130-2, (or 131-2)

A student who either has not completed all of these courses at a college or has not achieved the criterion grade point average in these courses at college may be admitted to Simon Fraser University in another faculty.

Science, Faculty of Admission is competitive. Students planning to enter the BSc degree program must have courses that receive the following transfer credit (minimum grade of C+ on each):

- Math 100
- two of BISC 100, CHEM 110 or 111, PHYS 100

Transfer Credit Guide

A transfer grade listing all first and second year (lower division) transferable courses and the Simon Fraser University equivalents is accessible through the British Columbia Council on Admissions and Transfer website at www.bccct.ca

Associate of Arts/Science Degree Holders Graduates holding Associate of Arts or Associate of Science degrees from BC colleges or university colleges recognized by the BC Ministry of Advanced Education will receive preference in the admission process as follows:

- The minimum average for Associate Degree students will be established each semester at a level 0.25 GPA points less than that required for regular transfer students.
- Transfer credit will be given for all individually transferable courses. When the individually assigned credit from all sources totals less than 60 credit hours, additional general elective credit will be assigned to bring the transfer credit total to 60 hours.

This policy is extended to graduates with an Associate degree from the BC Open University and the Institute of Indigenous Government who apply to SFU.

Literacy and Quantitative Skills Requirements

This requirement applies to applicants seeking entry to degree programs. Students with fewer than 30 credit hours of transferable credit must meet the same minimum literacy and quantitative standards as students entering from BC or Yukon secondary schools (see page 37).

Students with 30 credit hours or more of transferable work must meet the following requirements.

Literacy Students transferring from a BC or Yukon community or university college must either:

- fulfill the requirements for direct admission from BC or Yukon secondary schools;
- obtain a grade of C+ or better in a certified W (writing intensive) course that is transferable to SFU;
- obtain a C- or better grade in a course (three credits or more) that transfers to SFU as English (ENGL) transfer credit.

Note: this requirement takes effect for entry to the 2006 Fall semester (subject to Senate approval).

Quantitative Skills Students transferring from a BC or Yukon community or university college must either:

- fulfill the math requirements of students who are admitted directly from high school for the program of admission;
- obtain a grade of C+ or better in a transferable course that is certified Q by SFU and transfers as a Q course at SFU.

Note: this requirement takes effect for entry to the 2006 Fall semester (subject to Senate approval).

BC University Transfer

Applicants in good standing at other recognized universities may be admitted on completion of at least one full year (30 credit hours) of transferable work with a minimum 60% (2.0) average. Other requirements are the same as those for students transferring from a BC or Yukon community or university college. The following conditions apply:

- students must meet the same literacy and quantitative skills competency requirements as described above (see “Literacy and Quantitative Skills Requirements” on page 38)
- studies must have been at a fully accredited institution granting baccalaureate or higher degrees
- applicants who have been required to withdraw from the transferring institution or whose status, if they were attending Simon Fraser University, would be on Academic Probation will be admitted only if they have completed a further year (30 credits) or more of transferable work, with at least a 3.00 GPA.
- Simon Fraser University supports the ‘Pan-Canadian Protocol’ on transferability of first

Simon Fraser University 2005 • 2006
and second year courses from any recognized Canadian university. Applicants must send copies of detailed course outlines to assist with the evaluation of transfer credit.

**Visiting Students**
Students of other universities may apply for admission to take specified courses for subsequent transfer back to the ‘home’ university. Applicants should apply in the normal manner and will be evaluated as University transfer applicants (see above). No transfer credit or registration priority is awarded to visiting students.

**BC University Degree Holders**
Applicants holding degrees may be admitted to undergraduate studies to undertake a second or subsequent degree at the bachelor’s level, or to undertake a diploma or certificate. Applicants may also gain admission as special students to take undergraduate courses which are not for credit toward a degree, diploma or certificate program. Applicants with baccalaureate degrees from recognized universities will be admitted with a minimum average of 2.0 or 60% based on the last two years of degree (or post degree) work attempted.

**Literacy and Quantitative Skill Requirements**
Applicants to a degree program must fulfill the same requirements as applicants from BC and Yukon community colleges (page 38).

**Special Categories**
Simon Fraser University is interested in extending learning opportunities to British Columbia residents who may not qualify under the regular categories of admission. The number of such admissions is limited by the availability of resources, and is not automatic. Four special categories are available — mature student entry, early entry, concurrent studies and irregular admission.

Only Canadian citizens or permanent residents are eligible. Applicants must meet one of the following residency qualifications (documentary evidence should be submitted). They must have:
- been born in BC, or
- been a resident of BC for the six months prior to the proposed date of entry to the University, or
- resided in BC for a total of five years at any time.

**Mature Student Entry**
Applicants aged 23 or older who have attempted less than one year of post-secondary transferable course work, and who do not meet regular admission requirements, may be given consideration as mature students. In addition to normal documents, mature applicants must submit a personal information profile and at least one letter of reference (see "Diverse Qualifications Admission Policy" on page 35). Applicants who have successfully completed some post-secondary work, usually three to four transferable academic courses (nine to twelve credit hours), and ensured that they have no background deficiencies in essay writing, mathematics, etc. will receive preference.

Applicants for degree programs are expected to meet the literacy and quantitative skills competency requirements specified for transfer students (see "Literacy and Quantitative Skills Requirements" on page 38). Applicants who have attempted a year or more of transferable post-secondary work (i.e. 30 credit hours or more) are ineligible for mature student entry and may be considered for admission as transfer students.

**Concurrent Studies**
Students with superior academic records (90% or higher) may apply for limited admission to take one or two university courses while still attending secondary school. Admission is limited to one semester, with a maximum of two courses in the semester. Credit for these courses may be applied to academic degrees if the student is subsequently admitted to a regular program at the University. An admission form for concurrent students is available at http://students.sfu.ca/adm/concurrent.html.

Applications should be supported by a brief letter indicating what courses the student is interested in taking and what their academic goals are (upcoming course offerings are available at http://go.sfu.ca), a letter of recommendation from the school principal or designate, and an official copy of the academic record. Admission under this category is at the discretion of the director of admissions and the respective faculty dean.

**Irregular Admission (Education)**
Applicants may apply for irregular admission, giving limited access to certain courses offered by the Faculty of Education. This category allows certified teachers in BC, who seek professional development opportunities, to avoid long lead times and full documentation of their academic histories. Normal admission deadlines are waived, but published minimum admission requirements apply. Irregular admission students may not pursue a credential at Simon Fraser University (e.g. a degree) and receive no registration priority. They may take no more than eight credit hours per semester to a maximum of 16 in total. Eligibility to re-register after each semester is subject to the approval of the Faculty of Education. For further information, contact the Faculty of Education at 604.291.5830.
Canadian applicants may be admitted from:
• secondary school (see below)
• college or university (see *Applicants from Canadian Colleges/CEGEP* on page 41)

BC applicants should see "British Columbia and Yukon Applicants" on page 36.

Information concerning the International Baccalaureate Program and the Advanced Placement program can be found on page 43.

### Canadian High School Requirements
All applicants must be pursuing studies leading to high school graduation. Graduation is required prior to the start of the student's first semester. The following Faculty of Arts and Social Sciences table will help to determine the high school courses required for admission for applicants from all provinces in Canada except BC.

Applicants must have:
• one course from list 1
• two from list 2
• two further courses from list 2 or 3 (see chart below).

### Literacy and Quantitative Skills Requirements
All applicants must meet these requirements as described for BC and Yukon secondary school applicants (see *Literacy and Quantitative Skills Requirements* on page 37).

Non-residents of BC may write the Language Proficiency Index (LPI) exam during their first term at SFU.

### Faculty/Program Admission Requirements
Admission into many academic programs is highly competitive. Applicants must meet the general admission requirements, as shown below in the table, and, as part of those requirements, should have completed the following prerequisite course(s).

### Business Administration
• one grade 12 or equivalent mathematics course

### Admission requirements, Faculty of Arts and Social Sciences

Admission average calculated on five grade 12 or equivalent courses: one course from List 1, two from List 2, two further courses from List 2 or 3.

<table>
<thead>
<tr>
<th>Province</th>
<th>List 1</th>
<th>List 2</th>
<th>List 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alberta, Nunavut, Northwest Territories</td>
<td>Includes AP and IB acceptable courses</td>
<td>see AP and IB transfer credit tables for acceptable courses</td>
<td>see AP and IB transfer credit tables for acceptable courses</td>
</tr>
<tr>
<td>Manitoba</td>
<td>English, Français, English, French</td>
<td>biology, chemistry, world geography, western world history, mathematics 31, pure mathematics, physics, science, social studies</td>
<td>art 31, art (general), general music, drama, social studies</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>English, Français</td>
<td>biology, chemistry, English or French courses not used in List 1, world geography; a human perspective, world issues, advanced mathematics, pre-calculus mathematics, introduction to calculus 45A, statistics and probability 45A, physics</td>
<td>economics, law, computer science, languages, western civilization, physical science, drama, music, psychology 41G</td>
</tr>
<tr>
<td>Newfoundland and Labrador</td>
<td>English language 3101, Français 3220</td>
<td>biology, chemistry, thematic literature, literary heritage, environmental science, world geography, global issue, geology, world history, mathematics, advanced mathematics, calculus readiness 3105, statistics 3104, physics</td>
<td>art/design, video/film arts 3220, theatre arts 3220, advanced writing 3103, global economics 3103, computer technology, languages, folklore, literature, earth systems 3209</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>English, Français</td>
<td>biology, chemistry, Canadian literature, geography, global geography, Canadian geography, history, global history, mathematics, advanced mathematics, pre-calculus mathematics, physics</td>
<td>art, music, economics, law, political science, computer related studies, languages</td>
</tr>
<tr>
<td>Ontario</td>
<td>core English, core Français</td>
<td>biology, chemistry, studies in literature, Canadian and world issues: a geographic analysis, world geography: human patterns and interaction, Canada: history-identity-culture, world history: the West and the world, geometry and discrete mathematics, advanced functions and introductory calculus, mathematics of data management, physics</td>
<td>visual arts, dance, music, dramatic arts, the writer's craft, analysing current econ issues, environment and resource management, Canadian and international law, emerging directions, issues of indigenous peoples in a global context, individuals and families in a diverse society, challenge and change in society, issues in human growth and development, computer engineering, science, geomatics, computer and information science, exercise science, earth and space science, food and nutrition science, communications technology, languages, classical civilization, philosophy: questions and theories</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>English, Français</td>
<td>biology, chemistry, geography, global studies, history, algebra, advanced mathematics, physics, PEI history</td>
<td>intro economics, advanced politics, individuals in society, oceanography, animal science, computer studies, geometry, music, law</td>
</tr>
<tr>
<td>Quebec</td>
<td>English, Français, AP English Language and composition, IB English language A</td>
<td>at least two additional university preparatory grade 12 courses selected from mathematics, sciences, languages, literature, social sciences, history, geography</td>
<td>at least two academic courses required for graduation</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>English A and B</td>
<td>biology, chemistry, history: Canadian studies, mathematics A, B or C, calculus, physics</td>
<td>arts education, native studies: Canadian studies, social studies, language, computer science, dance, drama, theatre arts, visual art, information processing, law, psychology, forestry</td>
</tr>
</tbody>
</table>

Course titles in this chart are those used by your provincial ministry of education; check with your school counsellor if there are discrepancies.

Programs in the School for the Contemporary Arts have additional requirements, such as auditions or portfolio assessments. For further information, see www.sfu.ca/sca/
Applicants from Canadian Colleges/CEGEP

The following requirements refer to admission to the Faculty of Arts and Social Sciences, except where otherwise stated. The Quebec CEGEP requirements appear below.

Applicants who have attended a college in a transfer program articulated with Simon Fraser University must complete at least one full year (30 credit hours) of transferable work with a minimum average of 2.0 or 60%.

Applicants who have attended other community colleges in academic programs must have completed at least one full year (30 credit hours) of transferable work with a minimum average of 2.40 or 65%.

Applicants who met the University’s admission requirements after completing grade 12 may be admitted on the basis of those requirements, provided that they have attempted less than 30 credit hours of transfer credit. However, they will not be admitted if they present three or more transferable courses equal to nine or more credit hours with an average of less than 2.0 or 60%.

To up to 60 semester hours of transfer credit will be awarded for acceptable passed courses. Other requirements are parallel to those for BC college transfer students (see “Admission from BC and Yukon Community and University Colleges” on page 38), except that associate degrees are given no special priority.

Transfer credit may be granted to a maximum of 60 credit hours based on approved transfer lists or on the advice of the appropriate SFU departments.

Literacy and Quantitative Skills Requirements

See “Literacy and Quantitative Skills Requirements” on page 38.

Quebec CEGEP

Applicants from CEGEP must present either a completed DEC or at least one year of an approved academic program. The minimum average is 70%.

International Applicants

International applicants may be admitted from secondary school, from a college, from a university, or applicants may already hold a university degree. Refer to those sections that follow.

A partial list of admission requirements for first-year entry only follows.

Due to enrolment limitations, a high standing (equivalent to 80% or higher) is required for admission. Some schools offer programs that comply with international rather than national rules (i.e. International Baccalaureate, European Baccalaureate, etc.). Students from these schools will be evaluated by international standards.

Some schools offer an educational program that is different from the traditional program in that country – for example, a US 12 program in Saudi Arabia. In this case, please refer to the United States admission requirements.

The University limits new international students to not more than 10% of each year’s entry.

English Language Requirement

See “English Language Requirement” on page 35.

Literacy and Quantitative Skills Requirements

Literacy

International applicants may satisfy SFU’s literacy competency requirement in one of several ways.

- Applicants may submit an IELTS score of 7.0 (academic modules).
- Applicants admitted on the basis of a score earned on a different English language proficiency test (e.g., TOEFL) having an IELTS score of less than 7.0 will also be required to take the LPI or an equivalent language proficiency test before the conclusion of their first semester at SFU.

International students who score below 5 on the essay portion of the LPI, or who score less than 60% on any of parts 1, 2, and 3 of the LPI, will be required to register in the Foundations of Academic Literacy course at SFU. This course must be passed with a grade of C or better within the student’s first 45 units of credit. A maximum of two attempts is permitted.

Quantitative Skills

International applicants may meet the Quantitative Skills admission requirement by fulfilling either the BC and Yukon secondary school or college transfer entry standards.

Other Requirements

Medical Insurance

All students admitted to Simon Fraser University must have medical insurance. See “British Columbia Medical Services Plan” on page 35.

Academic Documents

Students must arrange to send official transcripts of all academic records from all schools and colleges attended to Simon Fraser University. Replaceable documents will not be returned to the student; other replaceable documents will be returned by mail or to the student personally, on request. If the student’s documents are not in either English or French, SFU requires an official translation, certified by an educational official of the student’s country, an official of a Canadian Education Centre, or a Canadian consul or embassy official. Translations made by the student, relatives or friends will not be accepted. For international applicants residing in BC, translations should be completed by a member of the Society of Translators and Interpreters of British Columbia (please view their website at www.stibc.org), or through MOSAIC Translation Services at 604.254.0469.

Requirements by Country

Argentina

Bachillerato/Bachiller or Bachillerato Especializado

on an academic program with a minimum score of 7/10 (good), but normally 8/10 (superior) is required. Applicants who have also written university entrance exams should arrange for these results to be sent to us with accompanying interpretive information.

Australia

ACT Year 12 Certificate plus Tertiary Entrance Statement (TES)/ Universities Admission Index (UAI) with a minimum C+ standing as defined by the home state university, but normally a B is required. A competitive TES or UAI is required:

- Australian Capital Territory (ACT): ACT Year 12 Certificate plus TES/UAI
- New South Wales (NSW): Higher School Certificate (HSC) plus TES/UAI
- Northern Territory (NT): Certificate of Education plus university aggregate/ SACE and TER
- Queensland (QLD): Queensland Senior Certificate plus TES showing Overall Position (OP) plus Field Position (FP)
- Tasmania (TA): Certificate of Education plus TES.
- Victoria (VIC): Victoria Certificate of Education (VCE) plus ENTER plus study score
- Western Australia (WA): Certificate of Secondary Education (CSE) plus TES and rank
- South Australia (SA): South Australian Certificate of Achievement (SACE) plus TER

Bangladesh

Higher Secondary Certificate (HSC)/Intermediate Certificate with a minimum second division standing (45%-59%/B), but normally first division standing (60%-100%/A) is required.

Brazil

Certificado de Conclusao de Ensino Medio (Segundo Grau before 1997) with minimum score of 7/10, but normally require 8/10 plus results of Concurso Vestibular (university entrance exam)/ ENEM (Middle Education National Examination).

China

See People’s Republic of China.

Colombia

First Year completed at a recognized university. Individual consideration is also given to applicants with excellent results in secondary school graduation (Bachillerato) with minimum average of 67% (6.7), but normally require 85% (8.5).

France

Baccalauréat de l’Enseignement du Second Degré (Baccalauréat Part II) or Diplome de Bachelor de l’Enseignement du Second Degré with a minimum standing of 12/20 (assez bien), but normally require 14/20 (bon).
Admission and Readmission

Germany
Abitur, Reifezeugnis or Zeugnis der Allgemeinen Hochschulreife with a minimum score of 3.5 (maximum 1.0) in the Abitur, but normally require 2.2 (maximum 1.0).

Greece
Apolytirion (Lykeion: Apolytirio Eniaiou Lykeiou (since 2000); before 1999 with a minimum overall average of 14/20, but normally require 17/20 plus general entrance examination.

Hong Kong (Special Administrative Region of China)
Hong Kong Advanced Level Examination (HKALE) with a minimum of 18 points on A levels (transferable or non-transferable) but normally require 20 points for Arts and Social Sciences, 18 points for Science and others evaluated by faculty/department. Advanced Level point system: add the points from A level subjects, using the following values.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Level</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>A</td>
<td>10</td>
</tr>
<tr>
<td>B</td>
<td>A</td>
<td>8</td>
</tr>
<tr>
<td>C</td>
<td>A</td>
<td>6</td>
</tr>
<tr>
<td>D</td>
<td>A</td>
<td>4</td>
</tr>
</tbody>
</table>

Note: Students who have completed the Junior College Diploma will be evaluated on an individual basis.

Malaysia
Sijil Tinggi Persekolahan Malaysia (STPM) (Malaysian Higher School Certificate); MICSS Unified Examination Certificate (UEC) with a minimum C+ (60%) on five academic subjects, but normally require B (70%).

Mexico
Bachillerato/Bachiller on an academic program with a minimum of 7/10, but normally require 8/10 plus results of University Entrance Examinations. Applicants who have also written university entrance exams should arrange for these results to be sent to us with accompanying interpretive information.

Netherlands
Voorbereidend Wetenschappelijk Onderwijs (VWO Diploma) with a minimum score of 6/10, but normally require 8/10.

New Zealand
National Certificate of Education Achievement (NCEA) levels three and four (minimum of 42 credits on academic programs, including at least 8 credits in Level 2 English). Before 2004: Higher School Certificate plus University Entrance, Bursaries and Scholarship Examination.

Norway
Vitnemål Fra Denvideregående Skole (Certificate of Upper Secondary Education); Vitnemal Videregaende Opplæring on an academic program with a minimum score of 3/6, but normally require 4/6.

Pakistan
Intermediate (IC) or Higher School Certificate (HSC) with a minimum overall average of C (50-59; Good), but normally require a B (60-89; Very Good).

People’s Republic of China
Senior Middle School Graduation Diploma with superior standing plus a competitive score of at least 63% in the National College Entrance Examinations (NCEE).

Philippines
High School Graduation Diploma (10 years) plus two years of university study with a minimum average of C, but normally require B. Students with more than 10 years of academic preparation will be evaluated on an individual basis.

Russian Federation
Svidetele/tyvolo Srednem Obrazovani (Certificate of Secondary Education) or Attestat O Polnom Srednem Obravosovani (Upper Secondary Education) with a minimum score of 3.5/5, but normally require 4/5 plus results of University Entrance Examinations.

Singapore
Singapore General Certificate Examination Advanced Level (A Level) with a minimum of 18 points on A levels (transferable or non-transferable) but normally require 20 points for Arts and Social Sciences, 18 points for Science and others evaluated by faculty/department. Advanced Level point system: add the points from A level subjects, using the following values.

South Africa
Senior Certificate with matriculation endorsement and a minimum average of C (60%), but normally a higher grade is required.

Sweden
Avgångsbetyg (Matriculation Certificate) or Fullstandigt Slutersbetyg from Gymnasieskolan with a minimum of 3.5 /5, but normally require 4/5.

Switzerland
Maturitatszeugnis, Certificat de Maturite, Baccalauréat, Attestato di Maturita or Federally recognized Cantonal Maturity Certificates with good grades (different grading scales used (1-6, maximum 6; 1-10, maximum 10; or 6-1, maximum 1).

Taiwan
Senior High School Certificate of Graduation on an academic program with a minimum B (70%) standing on an academic program, but normally require A (80%) plus Universities and College Joint Entrance Examination. Senior secondary education must have been completed at a senior high school, not a senior vocational school. Note: May be admitted on completed junior high school followed by a five-year junior college, provided that an academic program was followed at the junior college and a minimum average of B was achieved on the last two years of the diploma.

Thailand
Mathayom 6 (M6) (Secondary School Certificate) with minimum 2/4, but normally require 3/4 plus results of written entrance examinations.

Ukraine
Atestat Pro Povnu Zagal’nu Sersdniu Osvitu (Matriculation Examination) with superior grades or (see Russian Federation).

United Kingdom
General Certificate Examination Advanced Level (A-Level), with a minimum of 18 points (transferable or non-transferable), but normally require 20 points for Arts and Social Sciences and 18 points for Science is required. Other faculty/departments will evaluate on an individual basis. A Level point system: add the points from A Level subjects, using the following values.

United States
Secondary School Graduation with a GPA of 3.2 or higher based on a combination of grade 11 and 12 academic courses, test scores (typically SAT V+M ≥ 1200 or ACT ≥ 28). Other factors will be considered, such as honors, rank in class, and advanced academic courses (e.g. international baccalaureate, advanced placement program).

Note: The required score for the new SAT test was not determined at the time of publication. Please see http://students.sfu.ca for updated information.
Advanced Placement Program and International Baccalaureate

Advanced Placement (APP) and International Baccalaureate (IB) courses may be used in place of equivalent provincially-approved grade 12 courses. The chart on the right shows how APP and IB exam grades will be converted for the purpose of determining a student’s admission. Transfer credit and/or advanced standing will be granted to students who complete APP examinations, in certain transferable subjects, with grades of 4 or 5. Course challenge (credit by examination) is also available in some disciplines.

A student who has completed the IB diploma will typically be admitted subject to a minimum overall score of 28. Simon Fraser University grants transfer credit for some higher level subjects that are passed with a grade of 4 or higher, to a maximum of 30 credit hours. We do not grant transfer credit for subsidiary level subjects. In some cases students who will not complete a full IB diploma may be admitted subject to a minimum overall grade of 28. Simon Fraser University grants transfer credit for some higher level subjects that are passed with a grade of 5 or higher.

### International Baccalaureate Transfer Credit

<table>
<thead>
<tr>
<th>IB Examination</th>
<th>Level</th>
<th>SFU Recognition</th>
</tr>
</thead>
<tbody>
<tr>
<td>biology: general</td>
<td>HL</td>
<td>BISC 101 (4), 102 (4)</td>
</tr>
<tr>
<td>business and management</td>
<td>HL</td>
<td>individual assessment</td>
</tr>
<tr>
<td>chemistry</td>
<td>HL</td>
<td>CHEM 121 (4), 122 (2)</td>
</tr>
<tr>
<td>classical languages</td>
<td>HL</td>
<td>individual assessment</td>
</tr>
<tr>
<td>computer science</td>
<td>HL</td>
<td>CMPT 120 (3), CMPT 1XX (3)</td>
</tr>
<tr>
<td>dance</td>
<td>HL</td>
<td>(to be announced)</td>
</tr>
<tr>
<td>design technology</td>
<td>HL</td>
<td>(to be announced)</td>
</tr>
<tr>
<td>economics</td>
<td>HL</td>
<td>ECON 103 (3), ECON 105 (3)</td>
</tr>
<tr>
<td>English (language A)</td>
<td>HL</td>
<td>ENGL 101 (3), ENGL 1XX (3)</td>
</tr>
<tr>
<td>film</td>
<td>HL</td>
<td>FPA 237 (3), FPA 1XX (3) Film Studio</td>
</tr>
<tr>
<td>geography</td>
<td>HL</td>
<td>GEOG 100 (3), 111 (3)</td>
</tr>
<tr>
<td>history</td>
<td>HL</td>
<td>HIST 1XX (3)</td>
</tr>
<tr>
<td>history: Islamic</td>
<td>HL</td>
<td>HIST 1XX (3)</td>
</tr>
<tr>
<td>language A (various)</td>
<td>HL</td>
<td>LANG 1XX (6) – name of Language A except for English Language A = ENGL 101 (3), ENGL 1XX (3) French Language A = FREN 1XX (3) or 1XX (6) depending on placement test</td>
</tr>
<tr>
<td>language B (various)</td>
<td>HL</td>
<td>LANG 1XX (6) – name of Language B except for English Language B = no credit French Language B = FREN 1XX (3) or FREN 1XX (6) depending on placement test Italian B = ITAL 100 (3), ITAL 1XX (3)</td>
</tr>
<tr>
<td>mathematics</td>
<td>HL</td>
<td>MATH 151 (3), MATH 152 (3), MATH 1XX (3) with a score of 6 or better</td>
</tr>
<tr>
<td>music</td>
<td>HL</td>
<td>individual assessment</td>
</tr>
<tr>
<td>philosophy</td>
<td>HL</td>
<td>PHIL 1XX (6)</td>
</tr>
<tr>
<td>physics</td>
<td>HL</td>
<td>PHYS 101 (3), 102 (3)</td>
</tr>
<tr>
<td>psychology</td>
<td>HL</td>
<td>PSYC 100 (3), 102 (3)</td>
</tr>
<tr>
<td>social and cultural anthropology</td>
<td>HL</td>
<td>SA 101 (4), SA 1XX (4)</td>
</tr>
<tr>
<td>theatre arts</td>
<td>HL</td>
<td>FPA 1XX (3) theatre, FPA 150 (3)</td>
</tr>
<tr>
<td>visual art</td>
<td>HL</td>
<td>FPA 1XX (6)</td>
</tr>
</tbody>
</table>

### International University or College Transfer

The studies presented for transfer credit must be acceptable to a leading university in the home country toward a program similar to the one to which admission is sought. For further requirements, see “BC University Transfer” on page 38.

### International University Degree Holders

See “BC University Degree Holders” on page 39.

#### Advanced Placement Program Transfer Credit

<table>
<thead>
<tr>
<th>APP Exam Grade</th>
<th>IB Exam Grade</th>
<th>Equivalent Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>7</td>
<td>96</td>
</tr>
<tr>
<td>–</td>
<td>6</td>
<td>90</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>86</td>
</tr>
<tr>
<td>3</td>
<td>–</td>
<td>80</td>
</tr>
<tr>
<td>–</td>
<td>4</td>
<td>76</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>70</td>
</tr>
</tbody>
</table>

#### Advanced Placement Program Transfer Credit

<table>
<thead>
<tr>
<th>APP Exam Grade</th>
<th>IB Exam Grade</th>
<th>Equivalent Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>7</td>
<td>96</td>
</tr>
<tr>
<td>–</td>
<td>6</td>
<td>90</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>86</td>
</tr>
<tr>
<td>3</td>
<td>–</td>
<td>80</td>
</tr>
<tr>
<td>–</td>
<td>4</td>
<td>76</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>70</td>
</tr>
</tbody>
</table>

Note: These topics are not covered in APP physics C but are in PHYS 120 and 121: heat, kinetic theory, thermodynamics, wave motion, interference, diffraction, geometric optics and some topics in modern physics and special relativity.
Admission and Readmission

Students who have previously attended, who have completed at least one term at Simon Fraser University must apply for reactivation (formerly referred to as “re-registration”), or apply for readmission.

**Reactivation**

If they meet the following criteria:

- absent from the University for three or more consecutive terms and in good academic standing and completed no further academic studies at a postsecondary institution during the time away from SFU; or
- all the undergraduate programs are complete or will be completed by the end of the term.

Then students must fill out the reactivation form online at students.sfu.ca/adm/reactivationForm.html

**Readmission**

The following conditions require students to apply for readmission before registering in further courses:

- completion of further academic studies at a postsecondary institution during the time away from SFU; or
- required to withdraw or placed on extended withdrawal from SFU; or
- voluntary withdrawal from the first semester of attendance. New students who withdraw before completing any course work are required to apply for readmission if they wish to register in a subsequent semester, (unless they withdrew under extenuating circumstances, after the application deadline for the subsequent semester); or
- completion of a term by a concurrent studies student who wishes to continue at the University; or
- previous attendance as a visiting or exchange student and now wishing to complete an SFU credential.

Under these conditions students must apply for readmission by filling out the regular application form online at students.sfu.ca/ps/admissions.html by the applicable application deadlines.

**Holders of Simon Fraser University Bachelor’s Degrees**

In addition to submitting an application for readmission, former Simon Fraser University students who plan to undertake a program of study leading to an additional bachelor’s degree or toward a diploma are urged to obtain program approval from the appropriate department and faculty as soon as possible. Such students entering certificate programs should obtain approval from their faculty advisors.

Students holding Simon Fraser University bachelor’s degrees may also apply for reactivation to undertake undergraduate courses as special students. Normally, no approval is required.
Registration/Enrolment

Registration is the process of formally assigning and recording student's enrolment in a course(s). Registration is open only to those who have been admitted or readmitted to the University, or who are eligible for reactivation. An exception is that special audit students need not be formally admitted before registration (see "General Information" on page 29).

Under the trimester system a student must enroll for each semester, term, or session of attendance with the exception of the summer session, intersession and summer semester, which may be combined. Students are given access to the registration system based on the student's cumulative grade point average and on the number of hours completed and in progress. Students are assigned an appointment date and time from which access is activated.

Note: The registration procedure for designated off-campus programs and distance education courses is the same as for on campus courses. Specific program details are available in brochures published each semester. For further information see page 238. Information about how to enroll and details about the day, time, place and instructor for courses is provided in the Course Timetable and Exam Schedule and on the web at http://students.sfu.ca/gosfu. The University reserves the right to change arrangements without notice although it will endeavor to inform students affected by such changes.

New Students

After the application for admission has been assessed, the applicant will be advised of admission. If admitted, the student receives instruction on the procedure to enroll for courses.

Continuing Students

Students who enrolled for one or more of the last three semesters and who are eligible to continue (see page 48), will be advised of registration procedures and deadlines well in advance of each semester.

Former Students

Under certain conditions, former students submit formal application for readmission in order to continue academic studies at the University (see page 33).

Course Loads

The following maximum course loads apply to all students, but certain students may be granted permission by their respective faculties to enroll in course overloads (see below).

Regular Session

The maximum course load for all students who are not registered for summer session courses only, or intersession courses only and who are not entering their graduating semester is as follows:

- **Applied Sciences, Arts and Social Sciences, Business Administration or Science** – 18 hours
- **Engineering Science** – 22 hours (permission of the director is required for course loads below 15 hours).
- **Education** – 20 hours

Intersession or Summer Session Only

Students enrolling for the intersession or summer session only, may not enrol in programs having a total value in excess of nine credit hours, except where course combinations may require registration in a program of 10 credit hours; however, no student will be permitted to undertake a program of more than 10 credit hours of work.

Summer Semester, Intersession, Summer Session Combinations

The normal course load limits apply to students who register in combinations of the above. For purposes of course load values only, in the regular summer semester the course load value corresponds to the credit hour credit allocated for the course. In the intersession or summer session, the course load value is twice the credit hour credit shown for the course. (This arises because in the shorter session classes must meet twice as often or for longer periods to equal the time of the regular semester.) Therefore in calculating course load value, note the following example.

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
<th>Course Load Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 371-5 (if taken in summer semester)</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>ARCH 372-5 (if taken in eight week intersession or summer session)</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Total Course Load</td>
<td>10</td>
<td>15</td>
</tr>
</tbody>
</table>

Course Overloads

No student who is on academic probation may register in a course overload.

In the Faculty of Applied Sciences, approved majors who wish to register in an overload require permission of the director of their school. Other Faculty of Applied Sciences students require permission of the dean of the faculty. In the School of Engineering Science, permission of the director is required for course overloads exceeding 22 hours. In the Faculties of Arts, Business Administration, and Education only, a student who requires an overload to fulfill graduation requirements in the semester for which he/she is enrolling may be allowed, with the dean's permission, to enroll in an overload.

In the Faculty of Science, a student entering the graduating semester who requires specific courses to fulfill graduation requirements in the semester for which the student is registering, may be permitted to enrol in courses totalling up to 21 hours, provided either the cumulative grade point average or the most recent semester grade point average is 3.0 or higher. A limited number of overloads may be approved by the dean of the faculty in which the student is registered on an individual basis during the course change period.

Limits on Duplication of Courses

The number of courses which a student may repeat in a degree program is limited to five. Courses taken at Simon Fraser University for which a student has already received transfer credit from another institution will count within the current limit of five repeats. This limit may be extended by the dean of the faculty. Students attempting a course for the first time shall be given the opportunity to enroll prior to any students who are presently registered in the course or who have passed the course with a C- or better.

Students who intend to enroll in their sixth or subsequent repeat course should seek advice from their major department or the Academic Resource Office before submitting their requests for extension of the limit to their respective dean.

No individual course may be repeated more than once except with the permission of the department offering the course. Students wishing to enroll in a course for the third or subsequent time should consult an advisor in the department.

Duplicate Transfer Credit

Students may not receive transfer credit for a course which is a duplicate of a course passed at Simon Fraser University.

If a student enrolls for a duplicate course, and completes the course with a passing grade, the transfer credit will remain on the academic record as a duplicate, with a zero credit value. If the course is completed with a failing grade, or is dropped, the transfer credit will remain on the academic record. A department may permit credit to count for both a transfer course and a Simon Fraser University course, if the course content is judged to be sufficiently different.

Current limits on course repeats will apply to duplicate transfer courses. The implementation of this policy will not affect the method of calculating grade point averages.

See also “Credit for the Semester” on page 49.

Courses at Other Institutions/ Letters of Permission

Simon Fraser University students who wish to take academic work at other institutions for credit toward an undergraduate degree, diploma or certificate at this University must obtain permission in advance from their department chair (if a major has been declared) and the dean of their faculty. A form for this purpose may be obtained from Student Services. When approval has been granted, Student Services will issue a Letter of Permission form to the institution which the student plans to attend, if required by that institution.

Except as noted below, total transfer and course challenge credits may not exceed 60 credit hours and not more than 15 credit hours of transfer credit may count toward upper division requirements. Each diploma and certificate program has its own specific limit, and students should consult the appropriate section of this Calendar for such restrictions. Within these limits and limits on repeat of courses and duplicate transfer credit, credit may be transferred for all courses passed with a grade of ‘C’ (2.0 numeric equivalent) for institutions reporting on a letter grade grading basis, or 60% for institutions reporting on a percentage grading basis, or higher, and which are acceptable under Simon Fraser University’s transfer policies. Transfer credit is not used in the calculation of the cumulative grade point average. Students should see “Admission and Readmission” on page 33 for transfer credit information.

For information concerning maximum transfer credit pertaining to Education (EDUC) 401/402, 405, see “Transfer Credit” on page 206.
Course Challenge

Course challenge is a method by which a student may obtain credit for course material learned elsewhere (i.e. outside Simon Fraser University). A maximum of 60 credit hours may be obtained by the combined mechanism of course challenge and transfer credit.

A student must be eligible to register in order to register for course challenge.

• course challenge is not permitted for a course for which credit has already been obtained at Simon Fraser University or through transfer credit.

• a student may only register for both regular enrolment and course challenge in the same course at the same time, but must select one or the other, and may not change that decision in that semester later than ten days following the commencement of University classes.

• a student is not entitled to register for course challenge if he/she has recorded two challenges as either unsuccessful or unattempted.

• a student is not permitted to challenge a course(s) he/she has previously failed at Simon Fraser University.

• course challenge is not included in the grade point average.

• credits through course challenge do not count towards semester credit hours for government student assistance programs (e.g., Canada Student Loan, BC Student Loan, etc.) or SFU administered financial assistance programs including scholarships, bursaries, awards and loans.

• a department may elect to offer or to not offer the opportunity for course challenge

Please note the following with regard to course challenges in the Department of French and in the Latin American Studies Program.

With approval, a student may register and pay fees for challenge in a given language at an advanced level of the sequence, the department may indicate 'successful' in the preceding course(s) of the sequence in which the student is registered for challenge. If the student does not satisfactorily complete the course at the advanced level, then formal challenge assessment of the preceding level(s) should be undertaken to avoid two challenges without success based solely on the advanced assessment.

Registration for Course Challenge

Any eligible student who wishes to register for course challenge must obtain an official course challenge registration form from Student Services or the academic department, seek approval of the appropriate department chair to register for course challenge in that department, and return the completed form to Student Services or the academic department by the tenth day following commencement of classes. Normally, a student may not complete registration for course challenge after the end of the tenth day of classes. During the first ten days of classes, a student may change registration in course challenge from one course to another or to regular enrolment in courses, but may not withdraw from course challenge without substitution of regular course enrolment. After the tenth day of classes, no further course challenge changes will be permitted.

Course Audit

A student who has satisfied the admission requirements of the University may attempt a specific course(s) as an auditor upon completion of the necessary registration procedures, which include written approval of the department concerned.

Audit will be recorded as 'AU' on a student transcript if the student fulfills the requirements agreed to by the student and the instructor at the time of registration. Minimally, these requirements should comprise regular attendance at class meetings, completion of readings and participation in class activities. Audited courses will not count towards degree requirements.

During the normal course change period a student may change registration in course audit from one course to another, or to regular enrolment in the course, or from regular enrolment to course audit. Normally, no further registration in course audit will be permitted after the extended course change period has ended. For information on fees assessed for course audit, see “Undergraduate Fees” on page 52.

Note: Course audit and special audit are for different categories of students. Those interested in gaining entry as special audit students should see “Special Audit Student” on page 238.

Medical Requirements

Simon Fraser University does not require a pre-admission medical examination, but does reserve the right to require a student to submit a medical certificate at any time. It is the student's responsibility to have adequate hospital and medical insurance coverage. Adequate medical and hospital insurance is that which is provided under the Medical Services Plan of BC, or any other plan, government or private, which provides coverage equivalent to that offered under the Medical Services Plan of BC. Students who seek medical treatment through either the University Health Services or off-campus medical facilities must provide evidence of medical insurance. Failure to provide adequate information will result in the student being charged for services rendered. It is important for students to remember that while we in BC take health care for granted under the Medical Services Plan of BC, those who do not have medical coverage will bear the costs, which can be expensive.

The University assumes no liability for any failure by the student to maintain adequate medical, hospital (or dental) insurance, nor is the University responsible for any costs not covered by the student's personal insurance plan(s), whether it is Medical Services Plan coverage or otherwise. It should be understood that the University itself carries no medical, hospital or dental insurance coverage on students' behalf. Questions regarding hospital or medical insurance should be directed to the Medical Services Plan of BC, telephone 604.683.7151 (toll free).

Students who are not citizens or permanent residents of Canada should contact a private insurance company for coverage during the waiting period to obtain the Medical Services Plan coverage. For information on available private medical plans, contact SFU International, telephone 604.291.4232.

Program/Course Changes and Withdrawal

Program Changes

Program changes to academic goal, or to honors, major or minor subject declarations or intentions may be entered for necessary departmental approval on the program approval form available from the major department or Student Services.

Course Changes

You are urged to read the tuition refund policy and penalties for dropping courses very carefully to avoid, or minimize, financial penalty for dropping courses for which you register. Details of the policy, and deadlines, appear in the Undergraduate Fees section of the Calendar and, also in the Course Timetable and Exam Schedule (http://students.sfu.ca/gosfu). Failure to attend classes does not constitute withdrawal from a course. Courses that are not formally dropped will be given a failing grade; payment for the course’s tuition fee is required.

Semester Course Changes

The Course Timetable and Exam Schedule (http://students.sfu.ca/gosfu) that is published each semester contains detailed instruction on the procedures, and semester specific deadline dates to be followed, to change courses during the registration process and after the start of classes. The deadline dates may vary for the intersession and summer session.

Summer Session and Intersession Course Changes

For course change information in the intersession and summer session, refer to the summer semester Course Timetable and Exam Schedule (http://students.sfu.ca/gosfu).

Normal Course Change Period

Regular Semester – Class Days 1-5

Courses may be added or dropped or tutorial times changed using the registration system without prior approval of the department offering the course. Courses that are dropped will not receive a notation on the student's academic record.

Changes to courses registered for course challenge or for course audit must be approved by the department offering the course. During this time period a student may change registration in course challenge from one course to another, or to regular enrolment in the course.

Registration for course audit, course challenge and course changes must be done in person at the department offering the course.

Extended Course Change Period

Regular Semester – Class Days 6-15

After the fifth day of classes to the 15th day of classes, courses may be added only with special permission of the chair and instructor concerned. No courses can be added or changed to audit status after this time. Courses may be dropped without notation on the student's academic record. However, if a student drops all courses for the semester, the withdrawal will be noted on the academic record. A student may not withdraw from course challenge without substitution of a regular course enrolment. During the first ten days of classes, he/she may change registration in course challenge from one course to another, or to regular enrolment in the course. Permission of the department is required.

Course Drop Period

Regular Semester – Class Days 16-25

No courses can be added or changed to audit status after the fifteenth day of classes.
After the 15th day of classes to the 25th day of classes, courses may be dropped via the web at go.sfu.ca. Courses dropped within this period will be automatically recorded with a WD notation on the student's academic record. Students can apply to drop courses for extenuating circumstances at this time and if approved, the notation will be WE rather than WD.

During the sixth to twelfth week of classes a course or courses may be dropped only in extenuating circumstances. If approved, there will be a notation WE on the student's academic record for specific courses dropped. Applications must be made to Student Services, Assistant Director, Student Academic Affairs. Requests arising after the twelfth week, or requests relating to courses taken in a previous semester, are referred to as ‘retroactive’ and follow the same procedures as above but may take longer to adjudicate.

**Note:** Extenuating circumstances are defined as unusual circumstances beyond the student’s control which make it impossible for the student to complete the course. If a course drop is being considered after the 12th week of classes, it is recommended that students seek advice from Academic Resources.

**Withdrawals from the University**

Students wishing to withdraw from all courses in a semester must follow the same schedule as outlined above in Semester Course Changes. Specific semester dates can be found in the [Course Timetable and Exam Schedule](http://students.sfu.ca/gosfu). Official records will be updated to record the date on which withdrawal from the semester was effected.

The date of withdrawal for students who withdraw after the fifth day of classes will be recorded on the student's academic record.

**Library/Identification Card**

A student library/identity card is provided to registered or enrolled students. This card is required when borrowing books from the Library and for other on-campus identification purposes. In the event that this card is lost, destroyed or damaged, a replacement card may be obtained from Student Services upon payment of a fee.

**U-Pass Card**

U-Pass cards are mailed to the majority of returning students approximately ten days before the beginning of each semester. Students should receive their U-Pass cards in the mail if they are:

- enrolled in at least one eligible course four weeks before the semester begins (see Universal Transit Pass for details on eligibility)
- have a digital ID photo on file, and
- have an active, Canadian mailing address on goSFU.

New students, students who do not receive their U-Pass in the mail, or students who require a replacement U-Pass at any time during the semester must pick-up their U-Pass in person at any SFU campus. Check pick-up hours and locations on the U-Pass website at [www.sfu.ca/upass](http://www.sfu.ca/upass).

**Student Responsibility**

A student will be expected to fulfill the requirements and write the examinations in all courses for which he/she is registered after the date shown in the [Course Timetable and Exam Schedule](http://students.sfu.ca/gosfu) as the last date to drop courses. It is the student’s responsibility to ensure that Student Services has the proper information regarding courses in which the student is registered. Except in cases of illness, or for compassionate reasons, failure to write the examination constitutes a failure in the course. A student may receive credit for only the courses in which he/she is officially registered according to student service’s records.

**Class Interruption**

Simon Fraser University makes reasonable efforts to ensure that its classes and courses of instruction proceed on a regular basis and without interruption. Faculty have certain discretion to cancel or change the timetable for their classes; they will endeavor to give reasonable notice of any cancellation or change. Simon Fraser University will not be responsible for cancellation or change of any class. Neither will Simon Fraser University be responsible for the interruption or termination of any class or course of instruction which results from fire, riot, labor disruption or any other event which occurs despite the University’s efforts, or for failure to give notice of the interruption or termination.
General Regulations

Academic Honesty and Student Conduct

Academic Honesty
All members of the University community share responsibility for academic standards and the reputation of the University. Academic honesty is a cornerstone of the development and acquisition of knowledge. Academic honesty is a condition of continued membership in the University community. Academic dishonesty, like other forms of dishonesty, is misrepresentation with intent to deceive or without regard to the source or the accuracy of statements or findings. Academic dishonesty, in whatever form, is ultimately destructive of the values of the University; it is, furthermore, inimical and discouraging to the majority of students who pursue their studies honestly. Scholarly integrity is required of all members of the University.

The following examples are representative but not exhaustive of activities constituting academic dishonesty: plagiarism (presenting the work of another person as your own); submitting the same work more than once without prior approval; cheating; impersonation; submitting false records or information; stealing or destroying the work of another student; removing, mutilating, misplacing or destroying books or other library material; unauthorized or inappropriate use of computers, calculators and other forms of technology in course work, assignments or examinations.

The University code of academic honesty is contained in policy T10.02 on the Web via www.sfu.ca/policies/teaching/.

Penalties for Acts of Academic Dishonesty
Penalties imposed by the University for academic dishonesty may include but are not limited to one or more of the following: a warning, a verbal or written reprimand, reassessment of work, failure on a particular assignment, failure in a course, denial of admission or readmission to the University, deregistration, forfeiture of University awards or financial assistance, suspension or permanent suspension from the University.

Procedures for Academic Dishonesty and Student Misconduct
Procedures to be followed by the University in imposing a penalty for acts of academic dishonesty or acts of misconduct or an appeal therefrom are detailed in the policy establishing the university board on student discipline and the senate committee on disciplinary appeals (policy T10.03). This policy is available in the Library or any department office, or on the website www.sfu.ca/policies/teaching/.

Examinations
Final examinations will normally be held during the last two weeks of each semester. Examination period dates are outlined in the Academic Calendar of Events, and in the Course Timetable and Exam Schedule (http://students.sfu.ca/gosfu) mailed each semester to students eligible to enrol. Students must check the exam schedule when planning course selections. Students are reminded that final examinations may be scheduled at any time during the examination period and that students should avoid making travel or employment arrangements for this period. The student is not allowed to enroll in courses with conflicting examination times. Each student is expected to participate in work assigned during the semester. The marks obtained for work during the semester may be used in determining the final standing for the course. A passing grade in any examination does not ensure a passing grade for the course.

Students who miss examinations because of illness or compassionate reasons are required to obtain a physician’s certificate or other supporting documents in order to obtain consideration in the course. Such documents must be filed with the department chair or registrar within four days of the date on which the examination was to have been written. A student may not rewrite (or write, in the case of receiving an N grade) a paper unless he/she re-enrols for the course and participates in the course as required by the instructor.

In-class final examinations are not to be held before the beginning of the official examination period. Take-home examinations cannot be due until the scheduled final examination or within 96 hours of the scheduled final examination.

Student Conduct
Simon Fraser University is committed to creating a scholarly community characterized by civility, diversity, free inquiry, mutual respect and individual safety. The code of student conduct is intended to define students’ basic responsibilities as members of the academic community, to define inappropriate student conduct and to provide procedures and penalties to be invoked and applied if they engage in such unacceptable behaviour. Each student is responsible for his/her conduct which affects the University community. The code shall not be construed to unreasonably prohibit peaceful assemblies, demonstrations or free speech.

The following activities are representative but not exhaustive of behaviors constituting misconduct: disruptive or dangerous behavior; behavior which results in damage, destruction and theft of University property or the property of any member of the University; forgery or alteration of University documents or records; misuse of University resources including information (computing) resources; unauthorized entry or presence in University premises; misuse of student disciplinary procedures.

The University code of student conduct is contained in policy T10.01, which is available in the Library or any department office, or on the website www.sfu.ca/policies/teaching/.

Penalties for Acts of Student Misconduct
Penalties/remedies imposed by the University for misconduct may include but are not limited to one or more of the following: a warning, a verbal or written reprimand, exclusion from specified areas of the University, restitution or other ameliorative measures, counselling, denial of admission or readmission to the University, deregistration, forfeiture of University awards or financial assistance, suspension or permanent suspension from the University.

Procedures for Academic Dishonesty and Student Misconduct
Procedures to be followed by the University in imposing a penalty for acts of academic dishonesty or acts of misconduct or an appeal therefrom are detailed in the policy establishing the university board on student discipline and the senate committee on disciplinary appeals (policy T10.03). This policy is available in the Library or any department office, or on the website www.sfu.ca/policies/teaching/.

Grades

Scale
The student is awarded a final grade at the end of the semester for each credit course. Each grade will appear on the student’s record as a letter grade and numerical equivalent as follows.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Definition</th>
<th>Numerical equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>Excellent performance</td>
<td>4.33</td>
</tr>
<tr>
<td>A</td>
<td>Excellent performance</td>
<td>4.00</td>
</tr>
<tr>
<td>A-</td>
<td>Excellent performance</td>
<td>3.67</td>
</tr>
<tr>
<td>B+</td>
<td>Good performance</td>
<td>3.33</td>
</tr>
<tr>
<td>B</td>
<td>Good performance</td>
<td>3.00</td>
</tr>
<tr>
<td>B-</td>
<td>Good performance</td>
<td>2.67</td>
</tr>
<tr>
<td>C+</td>
<td>Satisfactory performance</td>
<td>2.33</td>
</tr>
<tr>
<td>C</td>
<td>Satisfactory performance</td>
<td>2.00</td>
</tr>
<tr>
<td>C-</td>
<td>Marginal performance</td>
<td>1.67</td>
</tr>
<tr>
<td>D</td>
<td>Marginal performance</td>
<td>1.00</td>
</tr>
<tr>
<td>E</td>
<td>Unsatisfactory performance</td>
<td>0.00</td>
</tr>
<tr>
<td>F</td>
<td>Unsatisfactory performance</td>
<td>no equivalent</td>
</tr>
</tbody>
</table>

Letter grades:
- A: Excellent performance
- B+: Good performance
- B: Satisfactory performance
- B-: Marginal performance
- C+: Satisfactory performance
- C: Satisfactory performance
- C-: Marginal performance
- D: Marginal performance
- F: Unsatisfactory performance

Letter grades do not apply to courses for which the instructor has indicated that a scale other than the one above will be used.

Penalties/remedies imposed by the University for acts of student misconduct or an appeal therefrom are detailed in the policy establishing the university board on student discipline and the senate committee on disciplinary appeals (policy T10.03). This policy is available in the Library or any department office, or on the website www.sfu.ca/policies/teaching/.

Final examinations will normally be held during the last two weeks of each semester. Examination period dates are outlined in the Academic Calendar of Events and in the Course Timetable and Exam Schedule (http://students.sfu.ca/gosfu) mailed each semester to students eligible to enrol. Students must check the exam schedule when planning course selections. Students are reminded that final examinations may be scheduled at any time during the examination period and that students should avoid making travel or employment arrangements for this period. The student is not allowed to enrol in courses with conflicting examination times. Each student is expected to participate in work assigned during the semester. The marks obtained for work during the semester may be used in determining the final standing for the course. A passing grade in any examination does not ensure a passing grade for the course.

Students who miss examinations because of illness or compassionate reasons are required to obtain a physician’s certificate or other supporting documents in order to obtain consideration in the course. Such documents must be filed with the department chair or registrar within four days of the date on which the examination was to have been written. A student may not rewrite (or write, in the case of receiving an N grade) a paper unless he/she re-enrols for the course and participates in the course as required by the instructor.

In-class final examinations are not to be held before the beginning of the official examination period. Take-home examinations cannot be due until the scheduled final examination or within 96 hours of the scheduled final examination.

Scale Changes
In the first two semesters (65-3, 66-1), A- and C+ grades were awarded; these grades were discontinued with the third (66-2) semester, as was the T (standing granted) grade. A- and C+ were re-established with the 67-3 semester, discontinued in 79-2 semester and re-established in 79-3.

Prior to fall semester 1979, numerical equivalents assigned to grades differed from those given above as follows: A+ = 4.00; A- = 3.67; B+ = 3.33; B = 3.00; B- = 2.33; C+ = 2.00; C = 1.67; C- = 1.00; D = 0.67; F = 0.00.

Explanation of Grades/Notations

AE Grades
Aegrotat standing (AE) in an incomplete course may be awarded on medical or compassionate grounds by the registrar acting on the recommendation of the instructor or department chair concerned when written evidence is submitted to substantiate a request for such standing, and when the course requirements for credit have been substantially fulfilled. This evidence normally must be received by the registrar or department within 96 hours of a scheduled final examination or within 96 hours of the
### Undergraduate

The last day of semester lectures for which such standing is requested. Courses for which aegrotat standing is awarded are not included in the GPA calculation.

#### AU Notation
Audit will be recorded as AU on a student transcript if the student fulfills the requirements agreed to by the student and the department at the time of registration. Minimally, these requirements should comprise regular attendance at class meetings, completion of readings and participation in class activities. Audited courses will not count towards degree requirements.

#### CC Grades
A student who has been registered for a course challenge is subject to an assessment equivalent to the final examination for the course plus an interview which may include an oral and/or practical examination, all to be arranged and approved by the chair of the department concerned. Departments are free to hold course challenge examinations at any time during the semester after the formal period of registration for course challenge. A performance equivalent to a grade of C or higher in the course is required for a successful course challenge.

The department concerned must submit a report to the registrar on or before the last day for submission of regular grades in the course for that semester indicating the final disposition for the course challenge in the semester. There is no provision for extension or deferral. Results will be recorded by departments as successful, unsuccessful or unattempted. Successful results will appear on transcripts of academic record and statements of standing with the entry CC in the grade column and with credit shown. At the end of semester, unsuccessful or unattempted results will not appear on transcripts of academic record or statements of standing but will be held by the Office of the registrar in internal records.

The grade of CC has no numerical equivalent and is not included in the calculation of grade point average. The grade of CC may not be applied in any way toward application for scholarships, bursaries or loans.

#### CR Grades
The grade of CR has no numerical equivalent and is not included in the GPA calculation. The grade of CR may be assigned in certain special cases.

#### DE Grades
The DE notation will be given when a physician’s certificate or other document substantiating a request for deferment on medical or compassionate grounds is received by the registrar or the chair of the department concerned within four days of the date from which the final examination was to have been written, or when the course instructor wishes to defer submitting a final mark pending completion of further work by the student. The DE notation must be submitted by the instructor with a recommendation of extension or referral and approved by the chair. All unchanged DE notations will be converted to F after the fifth day of classes of the semester immediately following the one in which the notation was awarded. In exceptional cases, an extension may be granted by the department chair upon petition by the student.

#### FX Grades
The grade of FX has no numerical equivalent and is not included in the GPA calculation. FX is assigned for formal exchange courses only.

#### GN Notation
The notation GN (grade not reported) may be used if circumstances beyond the University’s control make it impossible for course grades to be assigned. The notation has no numerical equivalent and does not affect either the semester grade point average (GPA) or cumulative grade point averages (CGPA). The dean of the faculty responsible for the course shall advise the registrar, in writing, that the notation GN is approved for a course or for a particular group of students in a course.

#### IP Grades
The grade of IP has no numerical equivalent and is not included in the GPA calculation. IP is assigned in certain Education courses.

#### N Grades
The letter grade N is given when a student has registered for a course, but did not write the final examination or otherwise failed to complete the course work, and did not withdraw before the deadline date. An N is considered an F for purposes of scholastic standing.

A student receiving grade N must re-register for the course and participate in the course again, as required by the instructor, in order to achieve a different evaluation for the course.

#### P and W Grades
The grades of P and W have no numerical equivalent and do not affect either the SGPA or CGPA. The designation W will be given when a student withdraws (or is withdrawn) after the course drop period for a course graded on a pass (P) or withdrawn (W) basis.

#### WD and WE Notations
The notations WD and WE are not grades and do not affect either the GPA or CGPA. The notation WD identifies a course freely dropped by the student. The notation WE identifies a course dropped by the student under extenuating circumstances normally during week 6 through to the end of week 12 of a semester. Extenuating circumstances are defined as unusual circumstances beyond the student's control which make it impossible for the student to complete the course. Different time periods are in effect for inter session and summer session. (For more complete details refer to “Course Drop Period” on page 46.) For semester specific dates, refer to the Course Timetable and Exam Schedule (http://students.sfu.ca).

### Credit for the Semester

#### Credit for the Semester
All credit earned will be granted, regardless of the grade point average (GPA) for the semester. Credit may be granted for a specific course/topic once only. Where a student repeats a course, the course(s) with the lower grade will be recorded on official records as a duplicate course. If the same grade is earned for a repeated course, the course completed most recently is recorded on the official records as the duplicate. Repeated courses for which no grades have yet been assigned (i.e., courses in progress) will be recorded as duplicates until a final grade is awarded which is higher than the grade previously earned. Duplicate courses remain on the official record, and are included in the calculation of the semester GPA. The cumulative GPA computed for semesters completed prior to fall semester 1979 includes duplicate courses. Duplicate courses are not included in the CGPA when it is computed for graduation purposes. See “Duplicate Transfer Credit” on page 45.

#### Statement of Grades
At the end of each semester, grades for that semester are made available to registered students in good financial standing on the registration system. Notifications of grades and academic standing will be mailed to students not in good academic standing. Errors in grades will be corrected as soon as possible.

Information concerning final grades is not released to unauthorized persons without written consent of the student.

### Grade Point Averages

The semester grade point average (GPA) is a method of expressing the student’s performance for the semester as a numerical average. Each letter grade (except grades/notations P, W, CC, AU, AE, CR, FX, DE, WD, WE and IP) is assigned a numerical equivalent, which is then multiplied by the credit hour value assigned to the course to produce the grade point. Grades without a numerical equivalent are not included in the calculation of the grade point average.

Semester grade point average is computed by dividing the total number of grade points earned by the total number of credit hours taken in the semester (excluding those credit hours assigned to course with a final grade/notation of P, W, CC, AU, AE, CR, FX, DE, WD, WE or IP).

<table>
<thead>
<tr>
<th>Letter</th>
<th>Grade</th>
<th>Value</th>
<th>Semester Hours</th>
<th>Grade Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course 1</td>
<td>A</td>
<td>4.00</td>
<td>3</td>
<td>12.00</td>
</tr>
<tr>
<td>Course 2</td>
<td>A+</td>
<td>4.33</td>
<td>3</td>
<td>12.99</td>
</tr>
<tr>
<td>Course 3</td>
<td>B-</td>
<td>2.67</td>
<td>3</td>
<td>8.01</td>
</tr>
<tr>
<td>Course 4</td>
<td>C</td>
<td>2.00</td>
<td>3</td>
<td>6.00</td>
</tr>
<tr>
<td>Course 5</td>
<td>F</td>
<td>0.00</td>
<td>4</td>
<td>0.00</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

The cumulative grade point average (CGPA) expresses performance as a numerical average for all semesters completed and is closed in the semester in which a degree or diploma is awarded by senate. A new CGPA begins when a student returns for further studies following the awarding of a degree or diploma.

The CGPA is calculated by dividing the total number of grade points earned to date by the total number of credit hours undertaken to date, with the exception of those courses assigned a final grade/notation of P, W, CC, AU, AE, CR, FX, DE, WD, WE, or IP. The CGPA calculated for semesters completed prior to the fall semester 1979 includes duplicate courses.

Repeat courses repeated in fall 1979 or thereafter and which have been assigned a final grade equal to or lower than the grade previously assigned are excluded from the CGPA calculation for the semester in which the course was repeated as well as any subsequent semester completed. If, however, a higher grade is achieved in the course when repeated, the repeat course(s) with the lower grade(s) will be excluded from the CGPA for the most recent semester and any subsequent semesters completed. However, the lower grade is reflected in the CGPA calculated for each semester up to the semester in which the higher grade was achieved.

The upper division grade point average is calculated by dividing the total number of grade points earned in upper division courses by the total number of credit hours assigned for those courses, counting only the higher grade in courses that have been duplicated.

### Standing Required for Continuance

The following procedures are in effect beginning summer semester 2003.

Every student is expected to maintain an acceptable standard of scholarship. Specifically, a student must maintain a minimum CGPA of 2.00. A student who does not do so shall be considered to be performing unsatisfactorily in his/her studies.

• upon first admission to Simon Fraser University, a student shall be placed in good academic standing
• academic performance shall be evaluated on Simon Fraser University courses that have assigned grades (‘assigned grade’ includes grades A+ through
to D, F, and N, but exclude P, W, CR, AE, CC, DE, GN, FX, IP and AU)
• formal evaluation of academic standing happens only if a student has accumulated a minimum of nine credit hours in courses having assigned grades

Academic Alert
A student whose semester grade point average (SGPA) falls below 2.00, but who is not placed on any of the academic standings given below, shall receive an "academic alert" notification and shall be advised to seek guidance at the Academic Resource Office.

Academic Probation
A student who has a CGPA of less than 2.00 shall be placed on academic probation (OAP). A student on academic probation may not register in a course overload. A student on OAP standing may not receive a "letter of permission" to attend another university or college.

Required to Withdraw
A student may be required to withdraw (RTW) after one or more semesters on academic probation (see "outcomes for a student on academic probation" below). A student on RTW standing may not receive a "letter of permission" to attend another university or college.

Extended Withdrawal
A student may be placed on extended withdrawal (EW) after she/he is required to withdraw (RTW), is readmitted and subsequently is on academic probation for one or more semesters (see Outcomes for a Student on Academic Probation below). A student on EW standing may not receive a "letter of permission" to attend another university or college.

Outcomes for a Student on Academic Probation
A student on academic probation shall be evaluated at the end of each semester. If at the end of the semester
• the SGPA and the CGPA are each 2.00 or higher, the student shall be in good academic standing
• the SGPA is 2.00 or higher, but the CGPA is less than 2.00, the student shall continue on academic probation
• the SGPA is less than 2.00, but the CGPA is 2.00 or higher, the student shall continue on academic probation. (This could occur if a student repeats a course.)
• both the SGPA and the CGPA are less than 2.00, the student shall be required to withdraw (RTW) from the University or, if previously required to withdraw (RTW), shall be placed on extended withdrawal (EW)

Readmission of Involuntarily Withdrawn Students
A former student who is involuntarily withdrawn from the University (required to withdraw or placed on extended withdrawal) may apply for readmission based on performance achieved in external academic course work completed after she/he last registered at Simon Fraser University (see below for details).

Readmission after Required to Withdraw
A former student who is required to withdraw (RTW) shall be eligible for readmission if she/he completes externally further transferable academic work according to the following schedule (any of the following five options):
• 12-17 credit hours with a minimum 3.50 GPA
• 18-23 credit hours with a minimum 3.00 GPA
• 24-29 credit hours with a minimum 2.75 GPA or with the acceptance GPA (see ‘acceptance GPA’ below) whichever is higher
• 30 or more credit hours with the acceptance GPA*
• a completed 2-year technical diploma with a 70% minimum average and at least 12 credit hours of transferable course work with a minimum 2.75 GPA. (The transferable work may be within the diploma program or supplementary to it.)

Readmission of Students on Extended Withdrawal
A former student on extended withdrawal (EW) shall be eligible for readmission if she/he completes further transferable academic work according to the following schedule (any of the following five options):
• 24-35 credit hours with a minimum 3.50 GPA
• 36-47 credit hours with a minimum 3.00 GPA
• 48-59 credit hours with a minimum 2.75 GPA or with the acceptance GPA (see ‘acceptance GPA’ below), whichever is higher
• 60 or more credit hours with the acceptance GPA
• a completed two year technical diploma with a 70% minimum average and at least 24 credit hours of transferable course work with a minimum 2.75 GPA. (The transferable work may be within the diploma program or supplementary to it.)

Acceptance GPA
The acceptance GPA refers to the minimum admission GPA in effect for that semester for British Columbia college transfer students, according to enrolment limitation measures. The acceptance GPA may vary.

Readmission Deadlines
Deadlines for consideration shall be the same as for other students seeking readmission (see "Application Deadlines" on page 34).

Duplicate Courses for Readmission
A repeated course attempt which was passed with a C grade or higher prior to leaving SFU will not count in the credit hour or GPA calculations for readmission.

Final Grades Evaluated for Readmission
Evaluation for readmission is based only on final grades (i.e. courses in progress are not evaluated).

Transfer Credit on Readmission
Credit for transferable courses shall be granted on readmission, subject to a C minimum grade in each course, and subject to normal transfer credit limits.

Standing on Readmission
If readmitted, a student who was previously involuntarily withdrawn from the University (RTW or EW) is placed on academic probation (OAP) and shall again be subject to the conditions described above.

Grade Point Averages Needed for Graduation
Grade point averages (GPAs) used for graduation are the minimum GPAs that must be achieved to satisfy the requirements for a degree or other credential. The graduation GPA must be obtained both on the upper division subset of that work (UDGPA).

In addition, program GPAs are the minimum GPAs that must be achieved to satisfy the requirements of an honors, major, extended minor or minor program.

In each case, the program GPA must be obtained both on the overall course work (CGPA) as well as on the upper division subset of that work (UDGPA) in the program area.

The graduation and program GPAs specified below are University minimum requirements; individual faculties and departments may, with senate approval, have higher requirements.

In the event of duplicated courses, only the higher grade issued in these GPA calculations.

<table>
<thead>
<tr>
<th>Graduation GPAs</th>
</tr>
</thead>
<tbody>
<tr>
<td>All courses (CGPA) and all upper division courses (UDGPA) taken at Simon Fraser University</td>
</tr>
<tr>
<td>point honors degree*</td>
</tr>
</tbody>
</table>
honors degree* | 3.00 |
general degrees | 2.00 |
certificates | 2.00 |
past baccalaureate diplomas | 2.50 |

<table>
<thead>
<tr>
<th>Program GPAs</th>
</tr>
</thead>
<tbody>
<tr>
<td>All courses and all upper division courses taken in the program area</td>
</tr>
<tr>
<td>joint honors*</td>
</tr>
</tbody>
</table>
honors* | 3.00 |
joint majors | 2.90 |
major | 2.00 |
extended minors | 2.00 |
minors | 2.00 |

*students who have obtained a GPA of 3.5 or greater in both the graduation and program categories specified above will receive the designation of Joint Honors or Honors (First Class).

Student Appeals
See "1.16 Graduate Student Appeals" on page 251 for graduate student appeals.

Students may appeal certain University decisions as follows.

Reconsideration of Grades
Students who intend to appeal a course grade are cautioned that failing grades have been checked very carefully and appeals seldom result in higher grades except where a clerical error has occurred. See academic policy T20.01 at www.sfu.ca/policies/teaching/

Admission and Readmission
Appeals for admission and readmission may be considered by the committee to review university admissions. See Committee to Review University Admissions below.

Assignment of Transfer Credit
Decisions may be reviewed by the committee to review university admissions.

Tuition Fee Refunds
The Enrolment Appeals Committee hears appeals for refunds of tuition fees and penalties for classes dropped due to extenuating circumstances beyond your control. The appeal must be supported with proper documentation, i.e. medical and/or (in cases that involve a death in the family) a certificate of death. Financial hardship does not qualify.

You must appeal within one calendar year from the time you dropped the class(es). If you are uncertain about your health, finances, time or other resources, you are advised to be conservative in committing yourself to classes. Although the University allows students to drop classes under extenuating conditions, the penalties are specified in the tuition fee schedule.
circumstances, extenuating circumstances alone are not sufficient for granting an appeal for a refund of tuition fees. The Student Services office provides appeal forms and advice on submitting an appeal. You can also download a pdf of the enrolment appeal form at students.sfu.ca/pdfforms/

**Academic Penalties (e.g., Suspension)**
Dispute about the findings of fact may be brought to the university board on student discipline (policy T10.03). Appeals on three grounds may be brought to the senate committee on disciplinary appeals (also Policy T10.03):

a) that there was unfairness in the process at the hearing
b) that the penalty imposed was inappropriate
c) that new evidence has emerged that was not available at the hearing and which casts doubt on the accuracy of the finding

**Entry to Limited Enrolment Program or Faculty**
Appeals may be considered by the appropriate chair, director or dean.

**Committee to Review University Admissions**
Secretary: Director, Student Academic Resources, Student Services
The committee to review university admissions considers cases in which an individual feels aggrieved by the decision of the registrar to apply a particular admission, readmission or transfer credit policy in his or her specific case when special circumstances are present. An applicant, student or former student who wishes to appeal a decision of Student Services must submit the appeal in writing, specifying the special circumstances to be considered (see Grounds for Appeal listed under Senate Appeals Board). Appellants may also appear in person before the committee. The committee will consider all evidence presented, both written and oral.

Students who have questions regarding the processing of their application for admission or readmission or regarding the assessment of transfer credit should first contact the Office of Admissions.

**Senate Appeals Board**
Secretary: Michael Dinning, Associate Dean, Student Services

**Procedure**
The senate appeals board considers cases, in which a student or former student feels aggrieved by the decision of a faculty, department or other administrative unit relating to a registration in courses, withdrawal from the University, eligibility for graduation, approval to a program or matter relating to academic standing, when special circumstances are present. Appeals must be submitted in writing, giving the grounds for the appeal.

**Grounds for Appeal**
Special circumstances are limited to documented significant physical or psychological distress, or serious mis-advice or improper administration by authorized University personnel with evidence the appellant’s studies were adversely affected. The board will assess cases based on the evidence submitted, both written and oral, the academic record of the appellant and probable actions of a hypothetical ‘reasonable person’ who might encounter circumstances similar to those encountered by the appellant. Appeals based on dissatisfaction with University policy or mere failure to meet published deadlines will not constitute special circumstances.

**Leave to Appeal**
The senate appeals board will decide if an appeal has adequate grounds. If in the judgement of the board there are insufficient grounds, the appeal may be dismissed without a formal hearing. An appellant may resubmit an appeal for consideration only if new information is presented.

**Stage 1 – Written Submissions Considered**
All appeals which go forward to the board will be reviewed in two stages. In stage 1, the written documentation will be reviewed. The board will decide cases in which

- the appellant requests a written appeal only
- the appellant requests an in-person hearing appeal but the senate appeals board considers that the written material presented is sufficient for a positive decision.

All other cases will be deferred until a later meeting for a stage 2 hearing.

**Stage 2 – In-person Hearings**
Appellants will be contacted by the secretary and asked to appear at a scheduled senate appeals board meeting. At the hearing, the appellant and/or her/his representative may provide information orally and answer questions posed by members of the senate appeals board. Decisions will normally be released shortly after the hearing.

**Policy**
The other committees mentioned above may be contacted through the following offices.

**Registration Appeals Committee**
Director, Records and Registration, Student Services

**University Board on Student Discipline (T10.03)**
Secretary to the University Board on Student Discipline, Student Services

**Senate Committee on Disciplinary Appeals (T10.04)**
Secretary to the Senate Committee on Disciplinary Appeals, Student Services
### Tuition Fee Schedule

Simon Fraser University assesses undergraduate tuition fees in accordance with a schedule of fees based primarily on the number of credit hours in which the student enrolls. Various special fees may be assessed by the University in certain circumstances or for specific purposes. All fees are subject to change, subject to provincial legislation and board of governors approval.

#### Basic Tuition Fee

<table>
<thead>
<tr>
<th>Type of Course</th>
<th>Basic Tuition Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal credit (per credit hour)</td>
<td>$145.20</td>
</tr>
<tr>
<td>BUS courses at 200 level and above (per credit hour)</td>
<td>$192.70</td>
</tr>
<tr>
<td>CMPT courses at 200 level and above (per credit hour)</td>
<td>$152.50</td>
</tr>
<tr>
<td>ENSC courses at 200 level and above (per credit hour)</td>
<td>$150.80</td>
</tr>
<tr>
<td>Course challenges (per credit hour)</td>
<td>$145.20</td>
</tr>
<tr>
<td>Audit (per credit hour)</td>
<td>$72.60</td>
</tr>
<tr>
<td>Co-op practicum (per semester)</td>
<td>$614.70</td>
</tr>
</tbody>
</table>

#### Differential Tuition Fee for International Students

<table>
<thead>
<tr>
<th>Type of Course</th>
<th>Differential Tuition Fee for International Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal credit (per credit hour)</td>
<td>$478.82</td>
</tr>
<tr>
<td>BUS courses at 200 level and above (per credit hour)</td>
<td>$528.10</td>
</tr>
<tr>
<td>CMPT courses at 200 level and above (per credit hour)</td>
<td>$485.90</td>
</tr>
<tr>
<td>ENSC courses at 200 level and above (per credit hour)</td>
<td>$492.30</td>
</tr>
<tr>
<td>Course challenges (per credit hour)</td>
<td>$478.82</td>
</tr>
<tr>
<td>Audit (per credit hour)</td>
<td>$293.30</td>
</tr>
<tr>
<td>Co-op practicum (per semester)</td>
<td>$614.70</td>
</tr>
</tbody>
</table>

#### Undergraduate Fees

<table>
<thead>
<tr>
<th>Student Activity Fee</th>
<th>Differential Tuition Fee for International Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>$72.60</td>
<td></td>
</tr>
<tr>
<td>$478.82</td>
<td></td>
</tr>
</tbody>
</table>

#### Special Fees

- **Application Fee**: $45.00
  Each time an applicant applies for admission or readmission, a $25 application fee is required. This fee, non-refundable and not applicable to tuition fees, must accompany the application for admission or be paid soon after making an application.

- **Level 2**: $100.00
  An application fee of $50 is required for all applicants whose academic records, in whole or in part, originate outside of British Columbia. (A level 1 fee is assessed if the documents originate from a Canadian high school, or if the applicant is participating in a recognized exchange program between SFU and another institution.)

- **Library/Identification Card Replacement**: $16.50
- **U-Pass Card Replacement**: $25.00
- **Replacement for an Original Degree, Diploma or Certificate Parchment**: $35.00
- **Residence Application**: $35.00
- **International Program**: $150.00
  For students who have been selected and have accepted the offer to participate in an international program, the following fees are applicable:
  - **formal exchange programs participation**: $150.00
  - **international field school administration**: $150.00

- **Graduation Fee**: $95.00
  - **Non-refundable**: $95.00
  - **Graduation immediately after making an application**: $95.00

- **Library/Identification Card Replacement**: $16.50
- **U-Pass Card Replacement**: $25.00
- **Replacement for an Original Degree, Diploma or Certificate Parchment**: $35.00
- **Residence Application**: $35.00
- **International Program**: $150.00
  For students who have been selected and have accepted the offer to participate in an international program, the following fees are applicable:
  - **formal exchange programs participation**: $150.00
  - **international field school administration**: $150.00

- **Student Services Fee (SSF) and Recreation-Athletics Fee (RAF)**: $493.20
  - **Students registered in audit courses, designated 'off-campus' courses only**: $29.79
  - **Students registered in audit courses, designated 'off-campus' courses only**: $29.79

### Student Services and Recreation-Athletics Fees

The Student Services Fee (SSF) and Recreation-Athletics Fee (RAF) are assessed to all students registered in credit courses with the exception of persons sixty or more, who are exempt, as well as students taking courses for audit purposes only. For a breakdown of this fee, see “Simon Fraser Student Society” on page 10.

- **Students registered in any combination of intersession, summer session, summer semester**: $526.10
- **Students registered in any combination of intersession, summer session, summer semester**: $35.68
- **Students registered in any combination of Co-op Education work term and credit course**: $29.73
- **Students registered in any combination of intersession, summer session, summer semester**: $29.73
- **Students registered in any combination of intersession, summer session, summer semester**: $526.10
- **Students registered in any combination of intersession, summer session, summer semester**: $35.68
- **Students registered in any combination of intersession, summer session, summer semester**: $29.73
- **Students registered in any combination of intersession, summer session, summer semester**: $29.73
- **Students registered in any combination of intersession, summer session, summer semester**: $526.10
- **Students registered in any combination of intersession, summer session, summer semester**: $35.68
- **Students registered in any combination of intersession, summer session, summer semester**: $29.73
- **Students registered in any combination of intersession, summer session, summer semester**: $29.73

### Student Activity Fee

A student activity fee, determined by the Simon Fraser Student Society, is collected from all students enrolled in credit courses with the exception of persons sixty or more, who are exempt, as well as students taking courses for audit purposes only. For a breakdown of this fee, see “Simon Fraser Student Society” on page 10.

- **Student Activity Fee payable by students, except as noted below**: $53.57
  - **Designated ‘off-campus’ courses only**: $23.79
  - **Other courses only**: $29.79
  - **Summer session courses only**: $23.79
  - **Summer session courses only**: $29.79
  - **Intersession courses only**: $23.79
  - **Intersession courses only**: $29.79
  - **Any combination of intersession, summer session, summer semester**: $53.57

### Universal Transit Pass

The U-Pass fee is $38.00 per semester. The following students are not eligible for the U-Pass and will be exempt from this fee:

- **students who are not admitted by Simon Fraser Student Society (see “Student Activity Fee” on page 10)**
- **students who are enrolled in Distance Education courses only**
- **students who are enrolled in designated ‘off-campus’ courses only**

The following students will be exempted from the U-Pass fee by following the procedures for U-Pass Exemption at the U-Pass website (www.sfu.ca/upass). Please note that supporting documentation will be required:

- **students who do not reside in the Greater Vancouver Regional District (GVRD) and who attend classes at a Simon Fraser University campus on average one day per week or less during the semester**
- **students who are registered with TransLink as handiTRANS users**
- **students who hold a valid TransLink U-Pass issued from another post-secondary educational institution**
### Undergraduate Fees – Mandatory Supplementary Course Fees

- **students who have a documented physical or psychological condition which prevents the use of public transit**

The U-Pass fee is charged to all students at the time of enrollment in courses. For exempt students, the U-Pass fee reversal will be applied to accounts by the first week of classes.

### Mandatory Supplementary Course Fees

In addition to credit course fees, mandatory supplementary course fees may be assessed for individual courses in addition to basic tuition and are deemed necessary for successful completion of the course. Mandatory supplementary course fees cover additional costs associated with, for example, such items as field trip expenses or special costs/handling involved in distance education courses.

A schedule of these fees appears below, and is also published in the **Course Timetable and Exam Schedule** as well as in departmental course outlines. The fees are approved by the vice-president finance and administration, following the recommendation of the advisory committee on mandatory supplementary course fees. Questions regarding these fees may be directed to the department initiating the fee, Student Services, or the vice-president finance and administration.

Mandatory supplementary course fees are not charged for regular credit instruction services which may include:

- evaluation of work or performance, such as marking of papers and exams
- laboratory use, including materials and supplies that are consumed during laboratory use. (Departments may charge a refundable deposit for materials used by the student and returned to the University in reasonable condition at the end of the course.)
- basic library facilities including one library card and access to collections
- basic microcomputer laboratory use
- materials or services required as a result of the method of instruction such as audio visual equipment, audio visual course outlines, study rooms and films and video tapes that are integral to the instruction and do not become property of the student.

Photocopied materials, prepared computer disks and audio visual tapes may replace or enhance the use of a required text as a means of instruction and are therefore not considered to be mandatory supplementary course fees. Many prepared packages will be distributed through the SFU Bookstore. It may be necessary to use them to distribute some materials within departments. Disclosure of these fees will be made in each course outline.

### Archaeology

<table>
<thead>
<tr>
<th>Code</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 433, 434, 435</td>
<td>$400</td>
</tr>
</tbody>
</table>

### Biological Sciences

<table>
<thead>
<tr>
<th>Code</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>BISC 306, 326, 416</td>
<td>$78</td>
</tr>
<tr>
<td>BISC 310, 404</td>
<td>$60</td>
</tr>
</tbody>
</table>

### Contemporary Arts

<table>
<thead>
<tr>
<th>Code</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>FPA 130, 131, 290, 390</td>
<td>$75</td>
</tr>
<tr>
<td>FPA 170, 375</td>
<td>$35</td>
</tr>
<tr>
<td>FPA 230, 231, 430, 432</td>
<td>$100</td>
</tr>
<tr>
<td>FPA 252</td>
<td>$20</td>
</tr>
<tr>
<td>FPA 261, 393</td>
<td>$50</td>
</tr>
<tr>
<td>FPA 269, 369</td>
<td>$40</td>
</tr>
<tr>
<td>FPA 363</td>
<td>$50</td>
</tr>
<tr>
<td>FPA 374</td>
<td>$25</td>
</tr>
</tbody>
</table>

### Distance Education

All courses offered through the Centre for Distance Education are assessed a $40 per semester fee to cover the cost of printing and binding materials, packaging and mailing of course materials and assignments, and broadcast and distribution rights for video support.

### Earth Sciences

<table>
<thead>
<tr>
<th>Code</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>EASC 100</td>
<td>$10</td>
</tr>
<tr>
<td>EASC 102</td>
<td>$10</td>
</tr>
<tr>
<td>EASC 200, 201, 401, 408, 410</td>
<td>$30</td>
</tr>
<tr>
<td>EASC 206</td>
<td>$20</td>
</tr>
<tr>
<td>EASC 301, 302, 404</td>
<td>up to $100</td>
</tr>
<tr>
<td>EASC 304</td>
<td>$40</td>
</tr>
<tr>
<td>EASC 305</td>
<td>$80</td>
</tr>
<tr>
<td>EASC 306</td>
<td>up to $400</td>
</tr>
<tr>
<td>EASC 309, 313, 413, 418, 419</td>
<td>up to $30</td>
</tr>
<tr>
<td>EASC 402</td>
<td>up to $150</td>
</tr>
<tr>
<td>EASC 404</td>
<td>up to $100</td>
</tr>
<tr>
<td>EASC 408</td>
<td>up to $250</td>
</tr>
<tr>
<td>EASC 411</td>
<td>$100</td>
</tr>
<tr>
<td>EASC 416</td>
<td>up to $50</td>
</tr>
</tbody>
</table>

### Education

<table>
<thead>
<tr>
<th>Code</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 330, 416, 428, 430, 476, 477</td>
<td>$20</td>
</tr>
<tr>
<td>EDUC 452</td>
<td>$46</td>
</tr>
</tbody>
</table>

### Environmental Science

<table>
<thead>
<tr>
<th>Code</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>EVSC 491</td>
<td>$200</td>
</tr>
</tbody>
</table>

### Geography

<table>
<thead>
<tr>
<th>Code</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 213</td>
<td>$60</td>
</tr>
<tr>
<td>GEOG 453</td>
<td>$60</td>
</tr>
<tr>
<td>GEOG 253, 323, 385, 417</td>
<td>$15</td>
</tr>
<tr>
<td>GEOG 264, 441</td>
<td>up to $100</td>
</tr>
<tr>
<td>GEOG 310</td>
<td>up to $400</td>
</tr>
<tr>
<td>GEOG 313</td>
<td>$50</td>
</tr>
<tr>
<td>GEOG 353, 416</td>
<td>$35</td>
</tr>
<tr>
<td>GEOG 324</td>
<td>$20</td>
</tr>
<tr>
<td>GEOG 412</td>
<td>$100</td>
</tr>
<tr>
<td>GEOG 426</td>
<td>$60</td>
</tr>
<tr>
<td>GEOG 427, 428</td>
<td>up to $50</td>
</tr>
<tr>
<td>GEOG 497</td>
<td>$2,500 – $3,000</td>
</tr>
</tbody>
</table>

### Interactive Arts and Technology

<table>
<thead>
<tr>
<th>Code</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>IAT 208</td>
<td>$60</td>
</tr>
</tbody>
</table>

### Marine Science

All MASC courses offered at the Western Canadian Universities Marine Biological Station (Barnfield) carry a supplementary course fee of up to $200 per credit hour.

<table>
<thead>
<tr>
<th>Code</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCIO 364</td>
<td>$40</td>
</tr>
<tr>
<td>SOCIO 371</td>
<td>$100 per semester</td>
</tr>
</tbody>
</table>

### Fee Appeals

Any student who considers he/she has just cause to appeal the application of University policy as it pertains to the assessment and refund of undergraduate tuition fees may submit an appeal in writing to the Registration Appeals committee.

Appeals must concern the current or the immediately preceding semester. Normally, appeals related to earlier semesters will not be accepted. Appeals should be submitted to Student Services.

### Payment of Fees

Regardless of the payment method, always provide your SFU student number with all financial transactions. The SFU student number is the only account reference that the University uses so it is very important to include this information.

There are several methods to pay your fees.

#### Internet/Telephone Banking
- set up Simon Fraser University as a Bill Payee on your account
- use your SFU Student Number as the account / invoice/billing number (note: some banking institutions look for a 10 digit number for the student/bill number, in this case, add a zero to the beginning of your student number.)
- go to “make a payment”
- enter amount of payment
- record “confirmation number” for your records
- allow two to three business days for the payment to be posted on to your SFU Student Account

### Student Accounts

Students can drop off a cheque or money order in the mailbox located at SFU Burnaby, top floor of the MBC 3000; the cheque should be made payable to Simon Fraser University, with your SFU student number clearly printed on the front.

Students can also pay by cheque, money order, or debit card at the general enquiries counter on any of the three campuses. (Credit cards are not accepted for tuition fee payments.)

- SFU Burnaby campus at the Student Services General Enquiries counter, located in MBC 3000, Monday – Thursday 9 am – 7:30 pm, and Friday 9 am – 4:30 pm
- SFU Surrey, Room 100, 2400 Central City, 10153 King George Highway, Surrey, Monday – Friday 9 am – 4:30 pm, phone 604.291.5040
- SFU Vancouver, 515 West Hastings Street, Vancouver, Monday – Thursday, 9 am – 7:30 pm and Friday 9 am – 5 pm.

### By mail

Mail your cheque or money order (do NOT send cash) to:

<table>
<thead>
<tr>
<th>Account</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Accounts</td>
<td>Student Services, MBC 3000 Simon Fraser University 8888 University Drive Burnaby, BC V5A 1S6</td>
</tr>
</tbody>
</table>

Please allow five (5) working days for your payment to be posted.

Note: there is a $25 administrative handling fee for all returned cheques.

### Payment of the Admission Deposit for New Students

New students must pay a non-refundable admission deposit of $100 to confirm acceptance of the offer of admission to undergraduate studies given by the University. Students aged sixty years or more are not required to pay this deposit.

The deposit will be applied to the cost of tuition; it is not an additional charge to the tuition fee assessment.

If you are a new student, you may pay your $100 admission deposit by credit card through goSFU (http://go.sfu.ca) under “Finances.” This is the only regular fee payable by credit card.

New students registering for their first semester are not required to pay the registration tuition deposit described below.

---

**Simon Fraser University 2005 • 2006**
Payment of the Registration Tuition Deposit for Continuing Students

Continuing students registering for their second or subsequent semester are required to pay a registration tuition deposit of $100. Payment must be received and posted to the student account before a student will be given access to the registration system to select courses. Students must pay the registration tuition deposit at least five working days prior to attempting to register for classes.

The deposit will be applied to the cost of tuition; it is not an additional fee. Payment of the deposit is considered by the University to be a commitment by a student to attend the semester.

Payment of the deposit cannot be deferred. Students eligible for any awards or sponsorships will receive a refund from Student Services when the appropriate credits are received and processed.

The Passport to Education and Youth Options certificates from the province of British Columbia may be submitted as payment of the registration tuition deposit.

Students eligible for tuition fee waivers or holders of Faculty of Education tuition fee certificates must submit to Student Services the properly completed forms and payment for the total amount of the student activity fee, athletic fee and student services fee.

Payment of Balance of Assessed Fees

The deadline for payment of the balance of fees is published in the Course Timetable and Exam Schedule distributed each semester. Credit for scholarships and bursaries will be given only on the authority of the Financial Assistance office.

Cancellation of Registration

To cancel your entire registration, you must use the registration system to drop each of your courses.

To avoid financial penalties, you must drop all courses by the deadlines given in the Course Timetable and Exam Schedule publication.

Non-payment of outstanding fees does not constitute cancellation of registration and grades based on incomplete or no work completed will be assigned.

Refunds

When students are registered in credit courses reduce the number of courses in which they registered, a refund may be granted provided the course change is made during the prescribed refund period. Special fees are not refundable, with the exception of the graduation fee and award of certificate or diploma fee.

Tuition Refund Policy and Course Drop Penalties

Regular Semester and Intersession (May-June)

Space in Simon Fraser courses is limited. Tuition refunds and penalties as outlined below are designed to discourage a student from holding space in course(s) which the student eventually decides not to take.

The registration system monitors course drops by taking ‘snapshots’ of the number of courses (net course load) in which each student is registered. Penalties are assessed on decreases in net course load, not on credit hours. The exact dates of ‘snapshots’ are published each semester in the Course Timetable and Exam Schedule under the heading Deadlines. However, the general dates of the three “snapshots” taken are: first, approximately one week after all students have been given access to the registration system; second, end of week one of classes; and third, end of week two of classes.

The first and last ‘snapshots’ are compared and, if a student’s course load has decreased, the student will be assessed a penalty for each course drop that resulted in a decreased course load. The penalty is $50 if the course was dropped before the end of week one, and $100 if the course was dropped before the end of week two. After week two there is no refund of tuition fees for courses dropped.

Summer Session (July-August)

Tuition penalties are not applied for dropping summer session courses.

Overdue Accounts

Students in bad financial standing because of overdue University accounts will be precluded from registering in subsequent semesters. In addition, the University will withhold certain services. For example, Student Services will not release various letters and documents including: statement of grades, official transcripts of academic record, and parchments for degrees, diplomas and certificates. Delinquent accounts will be forwarded to a collection agency for appropriate action.

Students with overdue accounts will be assessed a late fee penalty on outstanding fees: 2% (24% per annum) after the last day of the sixth week of classes, regardless of any pending scholarships, bursaries, awards, tuition waivers and school associate certificates. And an additional 2% will be assessed each month thereafter. Total penalties will be adjusted to conform to Canadian laws and regulations when the final payment is made.

Graduation Fee and Award of Certificate or Diploma Fee

If the candidate’s application for a degree, certificate and/or diploma is not approved, a full refund is issued. Applications may not be transferred from one semester to another and the required fee must accompany each application.

Tuition Fee Certificates (T2202A)

All SFU students, current and past, can print T2202A tax forms from the web at http://go.sfu.ca/

For more information on how to print out T2202A forms, please refer to:

http://students.sfu.ca/studentaccounts/T2202A
Financial Assistance and Awards

General Information and Regulations

The following regulations apply generally to all financial assistance administered by the University.

• All scholarships, awards and bursaries are given on the recommendation of the senate undergraduate awards adjudication committee. Committee decisions, when announced, are final.

• The University does not guarantee the payment of any scholarships, awards or bursaries listed in the Calendar other than those provided directly from funds of the University. If invested funds do not provide the necessary income for an endowed scholarship, award or bursary payment of the award may be reduced or the award withheld. The University reserves the right to withdraw awards donated by individuals or organizations where the funds required have not actually been received.

• The University reserves the right to refrain from making an award if, in its opinion, none of the applicants meets the terms specified.

• The individual student is responsible for knowing the deadlines, proper completion of the application forms and supplying all appropriate documentation for the various scholarships, awards and bursaries. Incomplete applications may be rejected.

• The senate policy committee on scholarships, awards and bursaries ensures that all scholarships, awards and bursaries administered by the University or listed in its Calendar, are in the best interests of the University as an academic institution. The terms of reference for scholarships, awards and bursaries should not include restrictive criteria unrelated to academic merit or financial need such as race, creed, colour, sex, or national origin, when the committee determines these criteria are improper or irrelevant.

• The senate undergraduate awards adjudication committee has the right to give special consideration to course load requirements on scholarships, awards or bursaries for persons with disabilities who are unable to meet the course load requirements due to their disability. Supporting documentation may be required.

• Students who misrepresent themselves on application forms for scholarships, awards or bursaries will be subject to disciplinary action.

• Any regulations which apply to a specific category of financial assistance are given within that particular subsection.

Eligibility

Students entering Simon Fraser University from secondary or high school, or transferring from a regional college or university, may be eligible for:

• Simon Fraser University Entrance Scholarships
• Bursaries
• Awards for the University community
• Canada Student Loan/BC Student Assistance Program

Students re-entering Simon Fraser University may apply for:

• Scholarships for continuing students
• Bursaries
• Awards for the University community
• Canada Student Loans/BC Student Loan and Assistance Program

Deadlines

Unless an award specifies a particular date, the deadlines are as follows.

University administered programs

Entrance Scholarships
• February 28

Scholarships for Continuing Students
• end of week two of classes

Bursaries
• approximately eight weeks before semester

Externally administered programs
• see the specific award for deadlines

Government administered programs

Government Student Loans
• at least eight weeks before semester

Contents

University Administered Programs 56

University Entrance Scholarships 56
For Canadian High School Students; Application Required 56
For Canadian High School Students; No Application Required 56
For BC College Students; Application Required 56
For International Students; Application Required 56
Other Entrance Scholarships 56
Entrance Awards for Secondary School Students 57
Scholarships for Continuing Students 57
Open Undergraduate Scholarship Program 57
Scholarships for All Students 57
Scholarships for Applied Sciences Students 58
Scholarships for Arts and Social Sciences Students 59
Scholarships for Business Administration Students 60
Scholarships for Education Students 61
Scholarships for Science Students 62
Scholarships for Student Athletes 63
Bursaries 63
Bursaries for All Students 63
Bursaries for Applied Sciences Students 68
Bursaries for Arts and Social Sciences Students 68
Bursaries for Business Administration Students 70
Bursaries for Education Students 71
Bursaries for Science Students 72
Awards for the University Community 73
Awards for All Students 73
Awards for Applied Sciences Students 75
Awards for Arts and Social Sciences Students 76
Awards for Business Administration Students 79
Awards for Education Students 79
Awards for Science Students 80
Awards for Student Athletes 80
Work-Study Program 85
University Administered Loans 85
Student Emergency Loan Fund 85

Externally Administered Programs 85

Externally Administered Entrance Scholarships 85
Externally Administered Scholarships for Continuing Students 87
Externally Administered Scholarships for All Students 85
External Scholarships for All Students 87
External Scholarships for Applied Sciences Students 97
External Scholarships for Arts and Social Sciences Students 99
External Scholarships for Business Administration Students 100
External Scholarships for Education Students 101
External Scholarships for Science Students 101
Externally Administered Bursaries 102
External Bursaries for All Students 102
External Bursaries for Applied Sciences Students 106
External Bursaries for Arts and Social Sciences Students 107
External Bursaries for Business Administration Students 107
External Bursaries for Science Students 107
Externally Administered Awards 107
External Awards for All Students 107
External Awards for Applied Sciences Students 114
External Awards for Arts and Social Sciences Students 114
External Awards for Business Administration Students 115
External Awards for Education Students 115
External Awards for Science Students 115
External Loans 116

Government Administered Programs 116
Canadian Armed Forces Subsidization Plans 116
Government Loans 116
Canada Student Loan/BC Student Assistance 116
Grants for Students with Permanent Disabilities 117
Grants for Female Doctoral Students 117

Study in BC for Students from Other Provinces 117
International Students 117
For More Information 117
Index 118

Special Information for Intercollegiate Athletes

Since Simon Fraser University competes in both the NAI A and the CIS, eligibility requirements for scholarships, awards and bursaries may differ for individual sports.
University Administered Programs

Undergraduate

University Entrance Scholarships

Student Recruitment, Student Services, Maggie Benston Centre, Tel 604.291.4970 general enquiries, Fax 604.291.4722, http://students.sfu.ca

The University awards entrance scholarships to outstanding students from across Canada. Our entrance scholarship program recognizes exceptional academic and community achievements of students attending British Columbia secondary schools, Canadian high schools, and BC colleges or equivalents.

The scholarships described below reflect our current program. For complete descriptions and information applicable to students entering in the fall of 2006, please refer to the entrance scholarship brochure and application material, available on the web in fall 2005.

All scholarship applicants should have high academic standing — a minimum 90% grade average is required. Please read carefully the application requirements sections in the scholarship brochure, as not all scholarships require application. Applicants must be Canadian citizens or Permanent Residents to qualify for entrance scholarships, except for international awards. All scholars must meet certain academic and registration requirements for complete disbursement of funds. Obtain details and application forms from Student Recruitment, or http://students.sfu.ca

For Canadian High School Students; Application Required

The final application deadline for September entry is February 28th; earlier application is encouraged. Scholarship winners who live outside BC will receive a one-time travel allowance of $1000. Winners who live within BC but outside the Lower Mainland will receive a one-time travel allowance of $500.

$34,000 Simon Fraser Scholarships
Recognize excellent academic performance and potential. Distributed over eight semesters.

$24,000 Gordon M. Shrum Scholarships
Recognize high academic standing and commitment to school and community service, volunteer activity, arts, or athletics. Distributed over eight semesters.

$7,000 Dean’s Scholarships
Dean’s Scholarships are awarded within each of the faculties of Applied Sciences, Arts, Business Administration, Education, and Science, to recognize academic achievement and potential in a particular area of study. Distributed over four semesters.

$2,000 SFU Surrey Entrance Awards
The SFU Surrey Entrance Awards recognize exceptional academic and community achievements of BC secondary school students from the region south of the Fraser River including Delta, Abbotsford, Langley and Chilliwack. Up to three such awards are available for each secondary school. To be eligible, students must have an admission average between 80% and 89% and consideration will be given to applicants who have demonstrated a commitment to their school and wider community and who have exhibited leadership. Applicants should also demonstrate academic interest in one of the programs being offered at the SFU Surrey Campus. These awards are not entitled to the one-time travel allowance.

For Canadian High School Students; No Application Required

All entering Canadian high school students are considered automatically for the following scholarships; no applications are required. Each scholarship consists of $3,500 distributed over two semesters. Students may qualify for the Open Scholarship, following the end of the scholarship disbursements. For more information, contact Student Recruitment.

$3,500 Jack Diamond National Entrance Scholarships
Recognize academic and athletic excellence. Potential candidates for the Jack Diamond Scholarships are identified by Simon Fraser University, and nominated by our Director of Recreation and Athletics.

$3,500 Kenneth Strand National Scholarships
Recognize academic excellence.

$3,500 Summit Scholarships
Recognize academic excellence.

$3,500 Tadeusz Specht Memorial Scholarships in Applied Sciences
Recognize academic excellence. Awarded to students entering the Faculty of Applied Sciences and pursuing studies in the fields of kinesiology or other health-related sciences.

$3,500 Tadeusz Specht Memorial Scholarships in Science
Recognize academic excellence. Awarded to students entering the Faculty of Science and pursuing studies in biology, microbiology, chemistry, biochemistry, or other health-related sciences.

For BC College Students; Application Required

$10,000 Honourable William M. Hamilton Scholarships
Recognize academic excellence and leadership potential. Distributed over four semesters. Students may qualify for the Open Scholarship, following the end of the scholarship disbursements.

$3,500 Ken Caple Scholarships
Recognize outstanding academic performance. Distributed over two semesters. Students may qualify for the Open Scholarship, following the end of the scholarship disbursements.

$7,000 Dean’s Scholarships
Dean’s Scholarships are awarded within each of the faculties of Applied Sciences, Arts, Business Administration, Education, and Science, to recognize academic promise in a particular area of study. Distributed over four semesters. Students may qualify for the Open Scholarship, following the end of the scholarship disbursements.

BC College scholarship application deadlines:
April 30 for admission to the fall semester, September 30 for the spring semester, and January 31 for the summer semester.

For International Students; Application Required

$4,500 International Summit
Recognizes academic excellence and potential.

$3,500 Gordon L. Diewert Memorial Entrance Scholarship
For International Students;
Recognizes academic excellence. Awarded to a student transferring from the University of British Columbia, who is planning to pursue a major in one of the faculties of Applied Sciences, Arts, Business Administration, Education, and Science, and will be attending Simon Fraser University. The award may be disbursed over one or two semesters, pending interest income from the endowed fund.

$3,500 Phi Theta Kappa International Summit Scholarships
Recognizes academic excellence. Awarded to Phi Theta Kappa members with a minimum 3.75 GPA. Recipients also receive a $500 travel grant in the first semester of registration. A minimum of 30 credit hours required for application. No citizenship restrictions. Part-time students and students with a previous bachelor’s degree are not eligible. All figures quoted in Canadian dollars. Distributed over two semesters.

$3,500 Dean’s Scholarships
Dean’s Scholarships are awarded within each of the faculties of Applied Sciences, Arts, Business Administration, Education, and Science, to recognize academic promise in a particular area of study. Distributed over four semesters. Students may qualify for the Open Scholarship, following the end of the scholarship disbursements.

BC College scholarship application deadlines:
April 30 for admission to the fall semester, September 30 for the spring semester, and January 31 for the summer semester.

For International Students; Application Required

$4,500 International Summit
Recognizes academic excellence and potential.

Gordon M. Shrum International Entrance Scholarship
Criteria: Academic excellence; international baccalaureate from a United World College; school involvement; community service; leadership; volunteer activity; participation in the arts or athletics; Minimum average: IB score 38/42

Students may qualify for the Open Scholarship, following the end of the scholarship disbursements.

For Canadian High School Students; No Application Required

All entering Canadian high school students are considered automatically for the following scholarships; no applications are required. Each scholarship consists of $3,500 distributed over two semesters. Students may qualify for the Open Scholarship, following the end of the scholarship disbursements. For more information, contact Student Recruitment.

$3,500 Jack Diamond National Entrance Scholarships
Recognize academic and athletic excellence. Potential candidates for the Jack Diamond Scholarships are identified by Simon Fraser University, and nominated by our Director of Recreation and Athletics.

$3,500 Kenneth Strand National Scholarships
Recognize academic excellence.

$3,500 Summit Scholarships
Recognize academic excellence.

$3,500 Tadeusz Specht Memorial Scholarships in Applied Sciences
Recognize academic excellence. Awarded to students entering the Faculty of Applied Sciences and pursuing studies in the fields of kinesiology or other health-related sciences.

$3,500 Tadeusz Specht Memorial Scholarships in Science
Recognize academic excellence. Awarded to students entering the Faculty of Science and pursuing studies in biology, microbiology, chemistry, biochemistry, or other health-related sciences.

For BC College Students; Application Required

$10,000 Honourable William M. Hamilton Scholarships
Recognize academic excellence and leadership potential. Distributed over four semesters. Students may qualify for the Open Scholarship, following the end of the scholarship disbursements.

$3,500 Ken Caple Scholarships
Recognize outstanding academic performance. Distributed over two semesters. Students may qualify for the Open Scholarship, following the end of the scholarship disbursements.

$7,000 Dean’s Scholarships
Dean’s Scholarships are awarded within each of the faculties of Applied Sciences, Arts, Business Administration, Education, and Science, to recognize academic promise in a particular area of study. Distributed over four semesters. Students may qualify for the Open Scholarship, following the end of the scholarship disbursements.

BC College scholarship application deadlines:
April 30 for admission to the fall semester, September 30 for the spring semester, and January 31 for the summer semester.

For International Students; Application Required

$4,500 International Summit
Recognizes academic excellence and potential.

Gordon M. Shrum International Entrance Scholarship
Criteria: Academic excellence; international baccalaureate from a United World College; school involvement; community service; leadership; volunteer activity; participation in the arts or athletics; Minimum average: IB score 38/42

Value: $40,000 plus tuition
Number: six

Other Entrance Scholarships

For additional information on the following scholarships, please contact Paul Godman, Student Recruitment, Simon Fraser University, 8888 University Drive, Burnaby, BC V5A 1S6, Canada. 604.291.4970 Tel; paul_godman@sfu.ca

$16,000 Lloyd Carr-Harris Foundation Entrance Scholarship in Business Administration
This award is offered to an entering high school student of the highest academic standing who also obtains direct admission into the Faculty of Business Administration. The award is distributed over eight semesters.

Columbia College Entrance Scholarship
This award provides financial support for an alumnus of Columbia College who will be attending Simon Fraser University. The award may be disbursed over one or two semesters, pending interest income from the endowed fund. Applicants must have graduated from Columbia College and be registered at Simon Fraser and show distinct promise of achievement at the undergraduate level. Applicants must provide a letter of application and résumé summarizing all awards, medals and prizes, leadership initiatives, and service as well as two letters of reference and certified copy of school transcript. Submit all documentation to Financial Assistance at Simon Fraser University by May 30th.

Dr. Gordon L. Diewert Memorial Entrance Scholarship
A scholarship will be awarded in the fall semester to a graduating student from New Westminster Senior Secondary School, who is planning to pursue a major in one of the faculties of Applied Sciences, Arts, Business Administration, Education, and Science, to recognize academic excellence. Awarded to a student transferring from the University of British Columbia, who is planning to pursue a major in one of the faculties of Applied Sciences, Arts, Business Administration, Education, and Science, and will be attending Simon Fraser University. The award may be disbursed over one or two semesters, pending interest income from the endowed fund. Applicants must have a record of community service, involvement in athletics and a high academic standing. The successful applicant will be recommended by the scholarship and bursary committee of New Westminster Senior Secondary School.

Mona F. East Memorial Entrance Scholarship
This fund provides a scholarship annually for the student graduating from Similkameen Secondary School with the highest standing and who will be attending Simon Fraser University. The amount of the award will vary, depending upon the accrued interest of the fund.

Stanley Morisse Memorial Scholarship
The Stanley Morisse Memorial Scholarship is awarded to a student transferring from the University of Cyprus or a Cypriot secondary school. The amount of the award is determined by the amount of interest earned on the endowment.

$3,500 Phi Theta Kappa International Summit Scholarships

Up to three entrance scholarships are made available for Phi Theta Kappa members with a minimum 3.75 GPA. Recipients also receive a $500 travel grant in the first semester of registration. A minimum of 30 credit hours required for application. No citizenship restrictions. Part-time students and students with a previous bachelor’s degree are not eligible. All figures quoted in Canadian dollars. Distributed over two semesters.

Deadlines: April 30 for admission to the fall semester, September 30 for the spring semester, and January 31 for the summer semester.

Rotary Club of Vancouver Sunrise Entrance Scholarship
The Rotary Club of Vancouver Sunrise provides an annual entrance scholarship from the interest earned
on the endowment. The scholarship will be based on academic merit with preference for an entering student from King George Secondary School. The recipient of the scholarship will be invited to make a presentation at the spring meeting of the Rotary Club of Vancouver Sunrise.

**Entrance Awards for Secondary School Students**

For additional information on the following awards, please contact Paul Godman, Student Recruitment, Simon Fraser University, 8888 University Drive, Burnaby, BC V5A 1S6, Canada. Tel 604.291.4970; paul.godman@sfu.ca

**Lohn Foundation Entrance Award**

Program code: UESE-316
Value: $5000
Awarded: Fall

The award is offered based on financial need to entering high school students with a minimum 80% admission average and demonstrated commitment to volunteer activities. To be considered eligible, students must provide a résumé and cover letter describing their volunteerism, the length of service and time-commitment dedicated to such interests and including a letter of reference from a supervisor of the candidate's volunteer work.

Completion of the Application for Student Financial Assistance form is required. See students.sfu.ca/af.

**H. Y. Louie Entrance Award**

Program code: UESE-314
Value: $5000
Awarded: Fall

The H. Y. Louie awards are valued at at least $5,000 and are offered based on financial need to students with a minimum 80% admission average and demonstrated commitment to volunteer activities. The awards will be made in the fall semester to undergraduate students entering the Faculty of Arts (1), the Faculty of Business Administration (1), and the faculties of Applied Sciences or Science (1). To be considered eligible, candidates should demonstrate their involvement in unpaid volunteer activities by providing their résumé and cover letter describing their volunteerism, the length of service and time commitment dedicated to such interests and including a letter of reference from a supervisor of the candidate’s volunteer work. Documentation relating to the financial need of the candidate is also required. The award is granted by the Senate Undergraduate Awards Adjudication Committee.

Completion of the Application for Student Financial Assistance form is required. See students.sfu.ca/af.

**Scholarships for Continuing Students**

**Regulations**

The following regulations govern all university, private and endowed scholarships for continuing students over which the University has jurisdiction. Many are endowed scholarships.

- A student holding an ongoing SFU Entrance Scholarship is not eligible for private scholarships until the entrance scholarship is fully paid out.
- Funds will be credited to the successful student’s University account.
- Outstanding University debts will be deducted from the scholarship funds before a cheque for the credit balance is issued.
- The student must apply on the Simon Fraser University Private Scholarship application form. It is the student's responsibility to meet applicable deadlines and supply all required documentation. Incomplete applications may be rejected.
- Unless otherwise stated, scholarships are tenable only at Simon Fraser University.
- Candidates are permitted to hold concurrently more than one academic award only with the permission of the Financial Assistance.
- Scholarships are tenable for the semester indicated and will not normally be deferred. Students who do not register in the semester for which the scholarship is granted forfeit the award. To be considered for future private or endowed scholarships, students must reapply.

**Open Undergraduate Scholarship Program**

The Undergraduate Open Scholarship recognizes and supports undergraduate students who are highly qualified academically and awards scholarships to students on a semester by semester basis.

**Eligibility**

Eligibility is limited to students pursuing a first degree and will expire when a student’s total accumulated credit hours (including transfer credits) exceed 132 credit hours or the community. The awards will be open to students who have completed at least 90 credit hours.

- A student holding an ongoing SFU Entrance Scholarship is not eligible for private scholarships until the entrance scholarship is fully paid out.
- Funds will be credited to the successful student’s University account.
- Outstanding University debts will be deducted from the scholarship funds before a cheque for the credit balance is issued.
- The student must apply on the Simon Fraser University Private Scholarship application form. It is the student's responsibility to meet applicable deadlines and supply all required documentation. Incomplete applications may be rejected.
- Unless otherwise stated, scholarships are tenable only at Simon Fraser University.
- Candidates are permitted to hold concurrently more than one academic award only with the permission of the Financial Assistance.
- Scholarships are tenable for the semester indicated and will not normally be deferred. Students who do not register in the semester for which the scholarship is granted forfeit the award. To be considered for future private or endowed scholarships, students must reapply.

**Scholarships for All Students**

**Hy Aisenstat Scholarship**

Program code: UESO-517
Value: $2500
Awarded: Fall
Spring

Terms of reference: To undergraduate students with experience in the hospitality industry who are returning to University. Please document eligibility.

**Alumni Scholarship and Bursary Endowment Fund**

Program code: UESO-253
Value: $500
Awarded: Fall
Spring

Terms of reference: To undergraduate students who meet the minimum scholarship regulations.

**Japanese-Canadian Centennial Scholarship**

Program code: UPSO-255
Value: $750
Awarded: Fall
Spring

Terms of reference: To a Japanese-Canadian student residing in British Columbia and enrolled in the first year of study at Simon Fraser. Eligibility for this scholarship will be based on academic ability, character, promise of achievement and participation in extracurricular activities. Applications will be considered from first year students.

**Ann and William Messenger Undergraduate Scholarship in English**

Program code: UESO-330
Value: $2000
Awarded: Fall
Spring

Terms of reference: Awarded on the basis of academic achievement to approved English majors who have completed at least 90 credit hours.

**Raytheon Canada Limited Scholarship for Native Students**

Program code: UPSO-278
Value: $750
Awarded: Fall
Spring

Terms of reference: To a native undergraduate student with high academic standing at Simon Fraser University. Preference will be given to students majoring in Engineering Science, Computing Science, Mathematics, Physics or Business Administration.

**Joseph and Rosalie Segal Scholarship**

Program code: UESO-254
Value: $1000
Awarded: Fall
Spring

Terms of reference: To students with good academic records, and demonstrated service to the University or the community. The awards will be open to students in any faculty who have completed at least 60 credit hours of study.

**Sulzer Inc. Undergraduate Scholarship**

Program code: UPSO-286
Value: $1000
Awarded: Spring

Terms of reference: Granted to an undergraduate student in any faculty based on academic merit. Preference will be given to applicants who are Sulzer Bingham employees; sons, daughters or legal dependents of Sulzer Bingham Pumps Inc. employees; or residents of Burnaby.
Terasen Pipelines (Trans Mountain) Inc. Scholarship  
Program code: UPSO-248  
Value: $1000  
Awarded: Spring  
Terms of reference: To undergraduate students in any faculty based on academic merit. The application should include a résumé and letter from the student outlining their interest in, and career plans concerning, environmental science and technology or environmental protection.

University Women's Club of Vancouver Scholarship  
Program code: UESO-526  
Value: $1725  
Awarded: Spring  
Terms of reference: Awarded to an undergraduate student in any faculty based on scholastic merit.

Vancouver Korean Canadian Scholarship Foundation Scholarship Award  
Program code: UPSO-294  
Value: $1000  
Awarded: Summer  
Terms of reference: The scholarship will be awarded based on academic merit, to a student attending a Korean exchange program through SFU International.

Scholarships for Applied Sciences Students  
Association of Professional Engineers and Geoscientists Scholarship  
Program code: UPSO-275  
Value: $1500  
Awarded: Fall  
Terms of reference: To a student with a high academic standing who is entering the second year of Engineering Science at Simon Fraser University. The assessment of academic standing will be based upon previous performance during the first year of engineering at another BC post-secondary institution. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the School of Engineering Science Scholarship Committee.

Channel M Scholarship in Communication  
Program code: UPSO-305  
Value: $3750  
Awarded: Spring Summer  
Terms of reference: The scholarship will be awarded based on academic merit, to a student attending a full-time program in Communication at Simon Fraser University. Applications should be submitted to the Director, School of Communication by January 2 (Spring Award) and by September 1 (Fall Award).

Paul Cote Endowment Scholarship in Engineering  
Program code: UESO-213  
Value: $700  
Awarded: Spring  
Terms of reference: To an Engineering Science student registered in the Faculty of Applied Sciences. The scholarship will be awarded on the basis of high academic performance to a student who has completed at least 60 credit hours at Simon Fraser University. This scholarship has been established by the Board of Governors.

CREO Electronics Corporation Scholarship  
Program code: UPSO-214  
Value: $1000  
Awarded: Spring  
Terms of reference: To Engineering Science students in the Faculty of Applied Sciences, who have successfully completed at least one year. Students will require a nomination from the Faculty, who will give consideration to academic standing as well as talent and interest expressed by the student in electro-optics, precision mechanics or instrumentation.

Harold Hancheroff Memorial Scholarship in Sports Education  
Program code: UESO-523  
Value: $750  
Awarded: Spring  
Terms of reference: To a full time student in the School of Kinesiology, who is pursuing an honors degree in sports education. The scholarship is also based upon academic merit.

Ken and Su Jang Scholarship for Women in Science  
Program code: UESO-276  
Value: $1800  
Awarded: Fall  
Terms of reference: To an undergraduate female student in the Faculty of Applied Sciences or the Faculty of Science. The award will be based on academic merit.

Elma Krbavac Undergraduate Scholarship in Computing Science  
Program code: UESO-322  
Value: $1000  
Awarded: Fall  
Terms of reference: To an undergraduate student in Computing Science based on high academic standing and demonstrated volunteer involvement. Candidates should demonstrate their involvement in volunteer activities by providing such details in a resume and cover letter with their application.

Matthew LeDuc Memorial Scholarship in Computing Science  
Program code: UESO-329  
Value: $450  
Awarded: Spring  
Terms of reference: Awarded on the basis of academic achievement to a Computing Science major, with demonstrated excellence in the field of computer graphics.

MDI Mobile Data Solutions Inc / Peter Kam Scholarship  
Program code: UPSO-289  
Value: $1500  
Awarded: Spring  
Terms of reference: Granted to an undergraduate student in a major or honors program in the School of Engineering Science, Computer Engineering option or in the School of Computing Science. The successful candidate should have a CGPA of 3.8 and will have distinguished him/her self in an innovative manner in a project or assignment in the spirit of creativity and exploration exemplified by Mr. Peter Kam. Applications should include recommendations from his/her faculty supervisor.

Joe and Mary Merchant Scholarship  
Program code: UESO-309  
Value: $525  
Awarded: Summer  
Terms of reference: A scholarship, based on scholastic merit, will be awarded to a full-time 3rd or 4th year undergraduate student in the Faculty of Science or the Faculty of Applied Sciences.

Fred and Elaine Moonen Scholarship in Communication  
Program code: UESO-266  
Value: $1000  
Awarded: Fall Spring  
Terms of reference: To students majoring in Communication entering their fourth year of the Communication program. Preference will be given to students in the Honors program. A recommendation from the Chair of the Department of Communication is required. Applications should be submitted to the Director, School of Communication by January 2 (Spring Award) and by September 1 (Fall Award).

Orbital Technologies Inc. Scholarship in Computing Science  
Program code: UESO-327  
Value: $450  
Awarded: Summer  
Terms of reference: The award will be given to an approved Computing Science major on the basis of academic performance and documented community service. Applications for the scholarship should also include a letter and resume chronicling volunteer service in the community. When possible, preference will be given to a female student.

Pager World Scholarship in Communication  
Program code: UPSO-301  
Value: $1000  
Awarded: Spring  
Terms of reference: The scholarship will be awarded based on academic merit in the Spring semester to a student in any year with a declared Communication major.

Basil Peters/High Tech Exchange Group Scholarship  
Program code: UESO-239  
Value: $500  
Awarded: Spring  
Terms of reference: The scholarship is given, based on academic merit, to upper level students in Engineering Science program studying in the areas of high frequency electronics. The scholarships will be made by the Senate Undergraduate Awards Adjudication Committee on the recommendation of the School of Engineering Science.

Raytheon Canada Limited Scholarship  
Program code: UPSO-279  
Value: $750  
Awarded: Fall  
Terms of reference: To an undergraduate student with high academic standing who is entering or in their third year of Engineering Science, Computing Science or Management and Systems Science at Simon Fraser University.

J. Newton Robinson Memorial Scholarship  
Program code: UESO-242  
Value: $250  
Awarded: Fall  
Terms of reference: To a Computing Science major, who has completed 60 credit hours at Simon Fraser University. The scholarship will be based upon academic performance. This endowment has been established in memory of J. Newton Robinson, former member of the Simon Fraser University Board of Governors.

Scotiabank Student Scholar in the Faculty of Applied Sciences Award  
Program code: UESO-311  
Value: $2000  
Awarded: Summer  
Terms of reference: Award will be granted to a Faculty of Applied Sciences student with at least 90 credit hours who exemplifies the aspects of a well-rounded student scholar; academic excellence and community involvement. Academic excellence is based on academic merit as determined by cumulative grade point average (cggpa); Community involvement may be service to the university community or the community at large.

Silent Witness Scholarship in Computing Science  
Program code: UPSO-295  
Value: $1500  
Awarded: Summer  
Terms of reference: To a fourth year student in Computing Science based on academic excellence.
Standard Broadcasting Corporation Limited Scholarship
Program code: UESO-325
Value: $1500
Awarded: Spring
Terms of reference: The scholarship will be offered, based on academic performance, to full-time students in the Information Technology and Interactive Arts programs at the SFU Surrey Campus.
Paul and Helen Trussell Science Scholarship Fund
Program code: N/A
Value: $20000
Awarded: Fall
Terms of reference: To a student entering their last two years of undergraduate study at a BC university or college, The applicant must be a Canadian citizen or Permanent Resident, and have completed secondary schooling in the Kootenay-Boundary area (School Districts No. 1-13 inclusive). To qualify, a candidate must be pursuing an undergraduate program leading to at least a Master’s or PhD degree in Natural or Applied Sciences, such as Agriculture, Engineering, Forestry and Fisheries. The award will cover the last two undergraduate years and the first two graduate years. Normally, a student must complete a minimum of 12 credit hours of graded course work each semester during tenure of the scholarship and maintain a 75% average. Apply to Science Council of British Columbia. www.scbc.org/programs/scholarship_trussell.html
University Women’s Club of Vancouver Women in Science Scholarship
Program code: UESO-260
Value: $1400
Awarded: Fall
Terms of reference: To a female student enrolled in the Faculty of Science. The award is open to third or fourth year students majoring in Science or Applied Science programs. A recommendation from the Dean of Science and/or the Dean of Applied Science is required.
Weyerhaeuser Company Limited Scholarship in Engineering Science and Environmental Science
Program code: UPSO-302
Value: $3000
Awarded: Fall
Terms of reference: The scholarship is awarded on the basis of exceptional academic performance to an undergraduate student with an approved major in Engineering Science and Environmental Science. The scholarship will rotate these approved majors in a three-year cycle outlined as thus: Year 1: approved major in Engineering Science, Year 2: approved major in Environmental Science with emphasis on Quantitative Techniques in Resource Management, Year 3: approved major in Environmental Science with any emphasis except Quantitative Techniques in Resource Management. When possible, preference will be given to students from a Weyerhaeuser operating community in Canada. The award is granted by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Director, School of Engineering Science or the Director, Department of Environmental Science.
Schools for Arts and Social Sciences Students
Father Michael Bach Memorial Scholarship
Program code: UESO-256
Value: $950
Awarded: Fall
Terms of reference: To an undergraduate student enrolled in either the third or fourth year of the Humanities program. Friends, relatives and colleagues of the late Father Michael Bach have established an endowment fund to support one or more scholarships in the Humanities Program. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the department in recognition of outstanding scholastic ability.
Mary Batchelor Memorial Scholarship
Program code: UESO-257
Value: $1450
Awarded: Spring
Terms of reference: To a student in the Psychology major or honors program. Selection by the Psychology Department will be based upon academic achievement and extracurricular involvement. Applicants must have completed at least 60 credit hours, of which 30 are of Simon Fraser University course work, and must also include a resume with their applications.
Arthur and Eva Bell Award in Business Administration or Economics
Program code: UPSO-203
Value: $500
Awarded: Fall
Terms of reference: To students in second, third or fourth year of Business Administration or Economics. Eligibility is based on need for financial assistance and high academic standing. Students must provide a copy of their current transcript with the application.
BOMA Graduate Scholarship in Urban Studies
Program code: UESO-306
Value: $1500
Awarded: Spring
Terms of reference: Offered by Dr. and Mrs. Devendra P. Goel to a student who has demonstrated overall excellence in the Humanities Program. Nominations are made by the Undergraduate Awards Adjudication Committee on the nomination of the Chair of the Department of French.
Mahatma Gandhi Humanitarian Scholarship
Program code: UESO-328
Value: $500
Awarded: Summer
Terms of reference: The award will be given annually to a student pursuing a French major or a French Honours program on the basis of academic excellence and service to the Department of French or the French Department Student Union. Applications should include a resume outlining the student’s volunteer activities. The award will be made by the Undergraduate Awards Adjudication Committee on the nomination of the Chair of the Department of French.
Haddassah-WIZO Scholarship in Women’s Studies
Program code: UPSO-292
Value: $200
Awarded: Summer
Terms of reference: One scholarship of $200 based on academic merit will be awarded to a full-time student in the Department of Women’s Studies.
Dr. Alfredo E. Hurtado Memorial Scholarship
Program code: UESO-274
Value: $1100
Awarded: Spring
Terms of reference: To an undergraduate student majoring in Spanish and/or Latin American Studies.
Pauline Jewett Scholarship
Program code: UESO-524
Value: $100
Awarded: Summer
Terms of reference: To the student who has the highest CGPA among Political Science Majors who have surpassed 90 credit hours during the term. To be eligible, the student must have taken at least two 200 level and at least 3 senior (300 or 400 level) courses in Simon Fraser Political Science Department. The awards will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Chair of the Political Science Department.
Lorne M. Kendall Memorial Scholarship in Psychology
Program code: UESO-226
Value: $350
Awarded: Summer
Terms of reference: To an undergraduate or graduate Psychology student who, in the previous year, has best exemplified Dr. Kendall’s approach to Psychology. Nominations for the award will be made by faculty members of the Psychology Department. The recipient will be selected by the Chair of the Department, after consultation with the Chair of the Undergraduate and Graduate Studies Committees.
Simon Fraser University 2005 • 2006
Financial Assistance and Awards – University Administered Programs
Department of French Award For Excellence
Program code: UESO-328
Value: $500
Awarded: Summer
Terms of reference: The award will be given annually to a student pursuing a French major or a French Honours program on the basis of academic excellence and service to the Department of French or the French Department Student Union. Applications should include a resume outlining the student’s volunteer activities. The award will be made by the Undergraduate Awards Adjudication Committee on the nomination of the Chair of the Department of French.

Note: The above information is a sampled representation of the content available in the image. The full document contains comprehensive details of scholarship programs and their terms of reference, eligibility criteria, and application details. For a complete list of scholarships, it is recommended to refer to the official university document.
<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>Program Code</th>
<th>Awarded:</th>
<th>Terms of Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jerry and Belle Lundie Memorial Scholarship</td>
<td>UPSO-231</td>
<td>Fall</td>
<td>Terms of reference: Available to students in their second, third or fourth year of undergraduate study. One scholarship is available to a student majoring in Business Management and the other scholarship is available to an Economics major. Applicants must be Canadian citizens and residents of BC. Preference will be given to physically challenged students. The scholarships are made available by the Credit Union Foundation of BC, in honour of Mr. and Mrs. J. Lundie, who were Credit Union pioneers.</td>
</tr>
<tr>
<td>Margaret J. Menzel Memorial Scholarship</td>
<td>UPSO-235</td>
<td>Spring</td>
<td>Terms of reference: To a single parent enrolled in the Women Studies program, on the basis of academic achievement. The Women's Studies Co-ordinator will forward nomination(s) to Financial Assistance.</td>
</tr>
<tr>
<td>John Stell Sykes Scholarship</td>
<td>UESO-245</td>
<td>Fall</td>
<td>Terms of reference: To students in second, third or fourth year of Business Administration. Academic excellence is based on academic merit as determined by cumulative grade point average (CGPA). Community involvement may be service to the university community or the community at large.</td>
</tr>
<tr>
<td>Mr. and Mrs. Erwin Sommer Scholarship in Earth Sciences/Geography</td>
<td>UESO-308</td>
<td>Summer</td>
<td>Terms of reference: Award will be granted to a Faculty of Arts student with at least 90 credit hours who exemplifies the aspects of a well-rounded student scholar; academic excellence and community involvement. Academic excellence is based on academic merit as determined by cumulative grade point average (CGPA). Community involvement may be service to the university community or the community at large.</td>
</tr>
<tr>
<td>John Stell Sykes Scholarship</td>
<td>UESO-316</td>
<td>Summer</td>
<td>Terms of reference: Scholarships will be granted on the basis of academic performance to students in the Faculty of Business Administration.</td>
</tr>
<tr>
<td>Chevron Canada Ltd Scholarship</td>
<td>UESO-282</td>
<td>Fall</td>
<td>Terms of reference: To a student in their final year of an undergraduate program who intends to pursue a career in business. Preference will be given to a student who has graduated from a BC secondary school. At least one letter of recommendation from a Dean or Department Chair must be submitted with the application.</td>
</tr>
<tr>
<td>Simon Fraser University 2005 • 2006</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Business Administration in the international business concentration. The applicant should be a Canadian citizen or a permanent resident of Canada and have completed at least 90 credit hours.

**Human Resources Management Association of BC Scholarship**

Program code: UESO-226
Value: $1000
Awarded: Fall
Terms of reference: The Scholarship will be granted to a Faculty of Business Administration student with an approved concentration in Human Resources Management who has completed at least two Human Resources Management courses at the three hundred level.

**ICABC Business Administration Co-Op Education Scholarship**

Program code: UPSO-229
Value: $2000
Awarded: Spring
Terms of reference: To a full-time undergraduate student in the Faculty of Business Administration Co-operative Education Program (CA stream). Candidates should have completed at least one practicum work semester after being accepted into the Co-operative Education program before eligibility is determined. The scholarship will be granted on the basis of academic performance, with consideration given to improved academic performance, and reports of practicum work performance and the expressed intent of becoming a Chartered Accountant. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of candidates by the Co-ordinator, Business Administration Co-operative Education Accounting Program.

**ICABC Desmond O’Brien Memorial Scholarship**

Program code: UESO-227
Value: $2000
Awarded: Spring
Terms of reference: To a full-time undergraduate student in the Faculty of Business Administration. The student will have completed 75 to 105 semester credit hours inclusive, including the semester of application, and must have at least 9 hours of accounting courses. The scholarship will be granted on the basis of academic performance.

**ISACA Vancouver Chapter Scholarship**

Program code: UPSO-300
Value: $250
Awarded: Summer
Terms of reference: The ISACA scholarship will be awarded to the top student of the year in BUS 426, an auditing course. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of candidates by the Co-ordinator, Business Administration Co-operative Education Accounting Program.

**Maria Kuchar Accounting Scholarship**

Program code: UESO-263
Value: $3000
Awarded: Fall
Terms of reference: Maria Kuchar Accounting Scholarships of approximately $3000 awarded in two disbursements, will be awarded in the fall semester to 3rd or 4th year undergraduate student in the Faculty of Business Administration majoring in Accounting. When possible, preference will be given to a female student.

**Robert H. Lee Scholarship in Business Administration**

Program code: UESO-271
Value: $1600
Awarded: Fall
Terms of reference: To a third or fourth year student who is majoring in Business Administration. The award is also based upon academic achievement.

**Jerry and Belle Lundie Memorial Scholarship**

Program code: UPSO-231
Value: $500
Awarded: Spring
Terms of reference: Available to students in their second, third or fourth year of undergraduate study. One scholarship is available to a student majoring in Business Management and the other scholarship is available to an Economics major. Applicants must be Canadian citizens and residents of BC. Preference will be given to physically challenged students. The scholarships are made available by the Credit Union Foundation of BC, in honour of Mr. and Mrs. J. Lundie, who were Credit Union pioneers.

**Gil Moser Memorial Scholarship**

Program code: UESO-238
Value: $1500
Awarded: Spring
Terms of reference: To a full-time student in the Faculty of Business Administration on the basis of high academic standing. This endowment fund has been established in memory of the late Gil Moser who served Simon Fraser University on its Board of Governors.

**Mr. Sub Scholarship in Business Administration**

Program code: UPSO-296
Value: $500
Awarded: Summer
Terms of reference: To a full-time student in the Faculty of Business Administration based on academic performance and demonstrated community volunteer involvement. Applications should include supporting document(s) describing such involvement.

**Pacific Blue Cross Scholarship in Management & Organizational Studies**

Program code: UPSO-304
Value: $1000
Awarded: Summer
Terms of reference: The scholarship will be made available, based on academic merit, to a third or fourth year student in Bachelor of Business Administration concentration in Management & Organizational Studies.

**Phillips, Hager & North Ltd Scholarship**

Program code: UPSO-282
Value: $2000
Awarded: Fall
Terms of reference: To an undergraduate third or fourth year student within the Faculty of Business Administration with a Finance concentration. This scholarship is based on academic merit.

**Robert Rogow Scholarship**

Program code: UESO-527
Value: $2400
Awarded: Spring
Terms of reference: Granted on the basis of academic merit, to undergraduate students in the Faculty of Business Administration with a concentration in Human Resources Management. The recipient will have completed at least one SFU credit course offered by the Faculty of Business Administration in industrial relations or collective bargaining.

**Scotiabank Student Scholar in the Faculty of Business Administration Award**

Program code: UESO-313
Value: $2000
Awarded: Summer
Terms of reference: Award will be granted to a Faculty of Business Administration student with at least 90 credit hours who exemplifies the aspects of a well-rounded student scholar: academic excellence and community involvement. Academic excellence is based on academic merit as determined by cumulative grade point average (CGPA). Community involvement may be service to the university community or the community at large.

**Shell Canada Limited Scholarship in Business Administration**

Program code: UESO-264
Value: $1300
Awarded: Fall
Terms of reference: To a full-time undergraduate student enrolled in the co-op program of the Faculty of Business Administration.

**Lis Welch Scholarship in Marketing**

Program code: UESO-522
Value: $725
Awarded: Fall
Terms of reference: Granted to an undergraduate student in the Faculty of Business Administration with a concentration in marketing, who is in third or fourth year. The award will be based on academic merit. Preference will be given to a female student who is a Canadian citizen or landed immigrant.

**Westminster Savings Barry Butler Memorial Scholarship**

Program code: UPSO-299
Value: $2500
Awarded: Fall
Terms of reference: The scholarship will be awarded in the fall semester to an outstanding third or fourth year undergraduate student in the Faculty of Business Administration on the basis of academic performance.

**Grant Wilson Memorial Scholarship**

Program code: UESO-298
Value: $3300
Awarded: Fall
Terms of reference: To a BC student in the Faculty of Business Administration who is entering the final two semesters of study at Simon Fraser. The applicant must be planning to enter Law school. This endowment fund has been established in memory of Grant Wilson by Stanley Pharmaceuticals Limited of North Vancouver, BC.

**Lorraine Wintrip Memorial Endowment Scholarship**

Program code: UESO-251
Value: $225
Awarded: Spring
Terms of reference: To an endowment fund has been established in memory of Mrs. Lorraine Wintrip, available to a Business Administration student majoring in Business Management with preference being given to banking related courses. Please supply a copy of your transcript and indicate any Business Management and Banking related courses.

**Mildred Wirtanen Scholarship in Business Administration**

Program code: UESO-277
Value: $1900
Awarded: Fall/Spring
Terms of reference: To an undergraduate student in Business Administration who shows a significant improvement in academic studies.

**Scholarships for Education Students**

**Carol and Gary Chapman Memorial Scholarship in Education**

Program code: UESO-518
Value: $3000
Awarded: Summer
Terms of reference: To an outstanding full-time student in the Faculty of Education's Professional Development Program based on academic merit and overall performance during the completion of the PDP practica. The award will be made by the Senate Undergraduate Awards Adjudication Committee on Scholarships, Awards and Bursaries on the nomination of the Dean, Faculty of Education.

**Madge Hogarth Scholarships in Education**

Program code: UESO-224
Value: $375
Awarded: Summer
Terms of reference: Two awards will be made to the most promising students based on academic standing prior to entry into the Professional Development Program (PDP), although teaching performance may be considered. One scholarship will be awarded to a student who enters the PDP in the fall semester and one to a student who enters PDP in the spring semester. The awards will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Faculty of Education.

John Rosborough Memorial Scholarship in Education
Program code: UESO-326
Value: $600
Awarded: Summer
Terms of reference: The scholarship will be awarded to an outstanding student in the Faculty of Education's Professional Development Program based on academic merit, overall performance during the completion of the PDP practica, and a demonstrated interest in some aspect of information technology in the field of education. Applications for the scholarship should include a letter and resume chronicling involvement and interest with the information technology education. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Dean, Faculty of Education.

Scotiabank Student Scholar in the Faculty of Education Award
Program code: UESO-314
Value: $2000
Awarded: Summer
Terms of reference: Award will be granted to a student in the PDP program who exemplifies the aspects of a well-rounded student scholar; academic excellence and community involvement. Community involvement may be service to the Faculty, the university community or the community at large.

Ethel Barbara Tuck Undergraduate Scholarship in Education
Program code: UESO-321
Value: $1500
Awarded: Fall Spring Summer
Terms of reference: Granted on the basis of outstanding academic performance to undergraduate upper division students who intend to pursue careers teaching children or youth and wish to develop skills in aiding pupils who have reading difficulties. The application should include a discussion of the student's interest in teaching remedial reading.

Scholarships for Science Students

Association of Professional Engineers and Geoscientists of BC Scholarship in Earth Sciences
Program code: UPSO-306
Value: $1500
Awarded: Fall
Terms of reference: One APEGBC Scholarship in Earth Sciences valued at $1500 will be made available annually in any semester, based on academic merit, to a 4th year student with an approved Earth Sciences major and proved participation in the Geology or Environmental Geoscience stream of Earth Sciences, leading to an eventual Professional Geoscientist designation. The award will be made by the Senate Undergraduate Awards Adjudication Committee on Scholarships Awards and Bursaries upon nomination by the Chair, Earth Sciences.

R. Bruce Coles Memorial Scholarship
Program code: UESO-283
Value: $625
Awarded: Fall Spring
Terms of reference: To support scholarship awards in memory of its founding Partner, the Coles Group has established, along with the family of the late R. Bruce Coles, an endowment. Two awards will be given each year. The award is based on scholastic merit and will be awarded to a full-time third or fourth year undergraduate student in the Actuarial Science Program in the Department of Mathematics and Statistics.

Fernandez Earle Student Exchange Scholarship
Program code: UESO-331
Value: $10000
Awarded: Fall Spring Summer
Terms of reference: Scholarship will be awarded based on academic merit to a 4th year Biological Sciences student to cover the costs associated with a two-semester student exchange with the University of Hawai'i. The qualifying candidate must use their time on the exchange to write and complete their Honours thesis focusing on marine biology and/or conservation. In order to be considered for the scholarship, applicants should provide an outline of their proposed thesis research and one letter of recommendation from a SFU faculty member familiar with the applicant's work. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Chair of the Department of Biological Sciences.

Goel Memorial Scholarship
Program code: UPSO-223
Value: $350
Awarded: Fall
Terms of reference: To a student who has demonstrated overall excellence in the Department of Mathematics and Statistics. Nomination required from the Chair of Mathematics. This scholarship has been established by Dr. and Mrs. D.P. Goel in memory of Mrs. Shakuntala Goel.

Ken and Su Jang Scholarship for Women in Science
Program code: UESO-276
Value: $1800
Awarded: Fall Spring Summer
Terms of reference: To an undergraduate female student in the Faculty of Applied Sciences or the Faculty of Science. The award will be based on academic merit.

Ron MacLeod Scholarship in Environmental Science
Program code: UESO-307
Value: $950
Awarded: Spring
Terms of reference: Granted to a third or fourth year student in the Environmental Science Program on the basis of academic performance. The application should include a letter from the student describing his/her commitment to and interest in environmental science.

William and Amelia McMahan Scholarships
Program code: UESO-233
Value: $1400
Awarded: Fall
Terms of reference: To students who are enrolled in full course work in the Faculty of Science, preferably to students who are in their first or second year of study and who have high academic standing will be considered. Preference will be given to students who are children of employees or former employees of the logging and pulp division of Canadian Forest Products Ltd. or its subsidiaries, affiliate companies or successors. In the event that no suitable candidates from the above are available, then children of persons engaged or formerly engaged in the logging or pulp industry in BC will be considered. Students must attach to the application form a resume including details of family service with the company and/or the industry.

Patrick Duncan McTaggart-Cowan Award in Physical Sciences
Program code: UESO-234
Value: $625
Awarded: Spring
Terms of reference: This scholarship fund was established in honour of Dr. Patrick Duncan McTaggart-Cowan. This fund will provide for a student in the physical sciences on the basis of academic achievement and potential, with consideration being given to financial need. Special consideration will be given to a student who plans to proceed to studies in meteorology or the atmospheric sciences or who has demonstrated interest or aptitude in these fields, and preference might be given to a third year student going into the graduating year in an honors program.

Joe and Mary Merchant Scholarship
Program code: UESO-309
Value: $350
Awarded: Summer
Terms of reference: A scholarship, based on scholastic merit, will be awarded to a full-time 3rd or 4th year undergraduate student in the Faculty of Science or the Faculty of Applied Sciences.

Pacific Blue Cross Scholarship in Actuarial Science
Program code: UPSO-303
Value: $1000
Awarded: Summer
Terms of reference: The scholarship will be made available, based on academic merit, to a third or fourth year student with a declared major in Actuarial Science. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Chair, Statistics & Actuarial Science.

Evelyn and Leigh Palmer Scholarship
Program code: UESO-267
Value: $3000
Awarded: Fall
Terms of reference: The scholarships are granted in any semester based on academic merit to undergraduate students in a major or honors program in the physical sciences (Physics, Applied Physics, Mathematical Physics, Chemical Physics, Chemistry, Molecular Biology and Biochemistry, or Physics and Physiology). Applicants should have completed at least 60 SFU semester hours toward the requirements for a degree and have completed at least 30 hours in two of the last three semesters in which they were enrolled.

Quadra Chemicals Ltd. Scholarship
Program code: UESO-270
Value: $850
Awarded: Spring
Terms of reference: To a full-time undergraduate student who is registered in second, third, or fourth year of study, majoring in either chemistry or biochemistry in the Faculty of Science. Applicants must demonstrate exceptional ability and not be recommended for an NSERC Summer Research Scholarship.

Faculty of Science Alumni Scholarships
Program code: UESO-320
Value: $500
Awarded: Summer
Terms of reference: Scholarships will be granted on the basis of academic performance to students in the Faculty of Science.

Scotiabank Student Scholar in the Faculty of Science Award
Program code: UESO-315
Value: $2000
Awarded: Summer
Terms of reference: Scholarships will be granted on the basis of academic performance to students in the Faculty of Science.
Terms of reference: Award will be granted to a Faculty of Science student with at least 90 credit hours who exemplifies the aspects of a well-rounded student scholar; academic excellence and community involvement. Academic excellence is based on academic merit as determined by cumulative grade point average (CGPA). Community involvement may be service to the university community or the community at large.

Mr. and Mrs. Erwin Sommer Scholarship in Earth Sciences/Geography
Program code: UESO-308
Value: $925
Awarded: Summer

Terms of reference: Granted in alternate semesters between Geography and Earth Sciences students, on the basis of academic merit to a student majoring in geography or earth sciences who has completed at least 90 undergraduate credits including 12 upper division credits in geography or earth sciences.

Trans-Canada Pipelines Research Scholarship
Program code: UESO-261
Value: $700
Awarded: Spring

Terms of reference: To a student presently enrolled in a four year program leading to a BSc in Chemistry. The Department of Chemistry Scholarship Committee will nominate a candidate for the scholarship on the basis of the applicant's potential for future work in research in chemistry related to the petrochemical industry and on the applicant's interest in such work.

Paul and Helen Trussell Science Scholarship Fund
Program code: N/A
Value: $20000
Awarded: Fall

Terms of reference: To a student entering their last two years of undergraduate study at a BC university or college. The applicant must be a Canadian citizen or Permanent Resident, and have completed secondary schooling in the Kootenay-Boundary area (School Districts No. 1-13 inclusive). To qualify, a candidate must be pursuing an undergraduate program leading to at least a Master's or PhD degree in Natural or Applied Sciences, such as Agriculture, Engineering, Forestry and Fisheries. The award will cover the last two undergraduate years and the first two graduate years. Normally, a student must complete a minimum of 12 credit hours of graded course work each semester during tenure of the scholarship and maintain a 75% average. Apply to Science Council of British Columbia. <www.scbc.org/programs/scholarship_trussell.htm>

University Women's Club of Vancouver Women in Science Scholarship
Program code: UESO-260
Value: $1400
Awarded: Fall

Terms of reference: To a female student enrolled in the Faculty of Science. The award is open to third or fourth year students majoring in Science or Applied Science programs. A recommendation from the Dean of Science and/or the Dean of Applied Science is required.

Vancouver Port Authority Undergraduate Scholarship in Geography
Program code: UPSO-284
Value: $2500
Awarded: Fall

Terms of reference: The scholarship, based on academic merit, will be given to a Geography student entering the fourth year of studies. In order to receive the second disbursement, the student must maintain academic standards.

Watson Wyatt & Company Scholarship in Actuarial Mathematics
Program code: UESO-516
Value: $2000
Awarded: Spring

Terms of reference: To an undergraduate student in the Certificate Program in Actuarial Mathematics who has successfully completed ACMA 310. The scholarship will also be based on high academic merit. A departmental nomination is required from the chair of the department or designate.

Weyerhaeuser Company Limited Scholarship in Engineering Science and Environmental Science
Program code: UPSO-302
Value: $3000
Awarded: Fall

Terms of reference: The scholarship is awarded on the basis of exceptional academic performance to an undergraduate student with an approved major in Engineering Science and Environmental Science. The scholarship will rotate these approved majors in a three-year cycle outlined as thus: Year 1: approved major in Engineering Science, Year 2: approved major in Environmental Science with emphasis on Quantitative Techniques in Resource Management, Year 3: approved major in Environmental Science with any emphasis except Quantitative Techniques in Resource Management. When possible, preference will be given to students from a Weyerhaeuser operating community in Canada. The award is granted by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Director, School of Engineering Science or the Director, Department of Environmental Science.

Scholarships for Student Athletes

Bill De Vries Athletic Award
Program code: UEAA-061
Value: $295
Awarded: Fall Spring Summer

Terms of reference: To a full time undergraduate student involved in sport information. The scholarship will be based on academic merit.

Howie Larke Scholarship in Sport Information
Program code: UEAA-052
Value: $55
Awarded: Fall Spring Summer

Terms of reference: To a full time undergraduate student involved in sport information. The scholarship will be based on academic merit.

Simon Fraser University Athletic Scholarships
Program code: UUAO-102
Value: $1000
Awarded: Fall Spring Summer

Terms of reference: To a full time undergraduate student involved in sport information. The scholarship will be based on academic merit.

Simon Fraser University Track and Field Alumni Scholarship
Program code: UEAA-042
Value: $500
Awarded: Fall Spring Summer

Terms of reference: Based on academic merit and will be awarded to a student who is a member of the SFU Track and Field team.

Bursaries

Regulations
The following regulations govern all university, private, and endowed bursaries over which the University has jurisdiction. Many of the following bursaries have been made possible by generous donations.

- Bursaries are a supplemental source of funding for students in high financial need. Students are expected to find their primary funding through other sources such as government student loan or grant programs, part time work, savings, family, etc.
- Both undergraduate and graduate students are eligible unless otherwise indicated.
- Students must have a demonstrated financial need.
- Students must have a minimum CGPA of 2.00 to be eligible for bursaries.
- Undergraduate students must be registered in a minimum of nine semester hours of normal graded courses in the semester of application, unless otherwise indicated. Challenge, audit, and credit free courses will not be considered. Students who register in fewer than nine semester hours or subsequently drop below nine hours may have their awards cancelled.
- Graduate students must be registered for residence credit in an approved full-time program. Students who do not register or subsequently change to on-leave status may have their awards cancelled.
- The student must apply on the Simon Fraser University bursary application form. It is the student's responsibility to meet applicable deadlines and supply all required documentation. Incomplete applications may be rejected.
- Unless otherwise stated, bursaries are tenable only at Simon Fraser University.
- Funds will be credited to the successful student's account with the University. Outstanding debts to the University will be deducted from the bursary funds before a cheque for the credit balance is issued.
- Bursaries are tenable only for the semester indicated on the notice and may not be deferred. Students who do not register in the semester for which the bursary is granted forfeit the award. To be considered for bursaries in future semesters of registration, students must reapply.

Bursaries for All Students

Aboriginal Student Bursary Program
Program code: UUBO-516
Value: $250
Awarded: Fall Spring Summer

Terms of reference: Bursaries are available each semester to entering and continuing aboriginal students attending Simon Fraser University who have a living connection to their own aboriginal community. Students shall submit documentation supporting their community connection with their bursary application. Awards will be made to students in good academic standing on the basis of demonstrated financial need. The Senate Awards Adjudication Committee will make the awards.

Alumni Scholarship and Bursary Endowment Fund
Program code: UEOB-584
Value: $500
Awarded: Fall Spring Summer

Terms of reference: To undergraduate and graduate students. The awards are based on financial need and satisfactory academic standing.

David Armstrong Memorial Bursary
Program code: UEOB-699
Value: $1000
Awarded: Fall

Terms of reference: To an undergraduate student in the co-op program. The bursary is based on...
demonstrated financial need and satisfactory academic performance.

Laure (Pat) Band and Richard W. Band Bursary for First Nations Students
Program code: UEBO-540
Value: $400
Awarded: Fall Spring Summer
Terms of reference: The bursary is granted in any semester based on financial need and community service to a student who is a member of the Squamish, Fort Langley, or Cheam First Nations and who have demonstrated volunteer involvement in service to the university or the community at large.

The bursary may be granted to undergraduate or graduate students in all disciplines and fields of study. The successful student will have completed a minimum of 30 credits and will have achieved a minimum cumulative GPA of 2.33. The application should include a discussion of the student's volunteer involvement in community activities and confirmation of the student's status in the Squamish, Fort Langley or Cheam First Nations.

The BC Coalition of People with Disabilities/Rick Watson Bursary
Program code: UPBO-698
Value: $300
Awarded: Fall Spring Summer
Terms of reference: The bursary will be awarded annually to an undergraduate student in an English or Communication program who has a disability which creates functional limitations as related to academic achievement as verified by the Centre for Students with Disabilities at Simon Fraser University. The bursary will be granted to students in good academic standing on the basis of financial need.

Bel-Par Industries Limited Bursary
Program code: UEBO-664
Value: $700
Awarded: Fall
Terms of reference: To an undergraduate student in any faculty. The bursary will be granted to a student who has maintained a satisfactory academic record and has financial need in the continuing pursuit of their studies. Preference will be given to students who are former employees of Bel-Par Industries or who are children or legal dependents of employees.

Birks Family Foundation Bursary
Program code: UPBO-551
Value: $500
Awarded: Fall Spring Summer
Terms of reference: The bursary will be awarded annually to students in any faculty based on demonstrated financial need and satisfactory academic performance.

Bel-Par Industries Limited Bursary
Program code: UEBO-664
Value: $700
Awarded: Fall
Terms of reference: To an undergraduate student in any faculty. The bursary will be granted to a student who has maintained a satisfactory academic record and has financial need in the continuing pursuit of their studies. Preference will be given to students who are former employees of Bel-Par Industries or who are children or legal dependents of employees.

Birks Family Foundation Bursary
Program code: UPBO-551
Value: $500
Awarded: Fall Spring Summer
Terms of reference: The bursary will be awarded annually to students in any faculty based on demonstrated financial need and satisfactory academic performance.

Bel-Par Industries Limited Bursary
Program code: UEBO-664
Value: $700
Awarded: Fall
Terms of reference: To an undergraduate student in any faculty. The bursary will be granted to a student who has maintained a satisfactory academic record and has financial need in the continuing pursuit of their studies. Preference will be given to students who are former employees of Bel-Par Industries or who are children or legal dependents of employees.

Birks Family Foundation Bursary
Program code: UPBO-551
Value: $500
Awarded: Fall Spring Summer
Terms of reference: The bursary will be awarded annually to students in any faculty based on demonstrated financial need and satisfactory academic performance.

Bel-Par Industries Limited Bursary
Program code: UEBO-664
Value: $700
Awarded: Fall
Terms of reference: To an undergraduate student in any faculty. The bursary will be granted to a student who has maintained a satisfactory academic record and has financial need in the continuing pursuit of their studies. Preference will be given to students who are former employees of Bel-Par Industries or who are children or legal dependents of employees.

Birks Family Foundation Bursary
Program code: UPBO-551
Value: $500
Awarded: Fall Spring Summer
Terms of reference: The bursary will be awarded annually to students in any faculty based on demonstrated financial need and satisfactory academic performance.

Bel-Par Industries Limited Bursary
Program code: UEBO-664
Value: $700
Awarded: Fall
Terms of reference: To an undergraduate student in any faculty. The bursary will be granted to a student who has maintained a satisfactory academic record and has financial need in the continuing pursuit of their studies. Preference will be given to students who are former employees of Bel-Par Industries or who are children or legal dependents of employees.

Birks Family Foundation Bursary
Program code: UPBO-551
Value: $500
Awarded: Fall Spring Summer
Terms of reference: The bursary will be awarded annually to students in any faculty based on demonstrated financial need and satisfactory academic performance.

Bel-Par Industries Limited Bursary
Program code: UEBO-664
Value: $700
Awarded: Fall
Terms of reference: To an undergraduate student in any faculty. The bursary will be granted to a student who has maintained a satisfactory academic record and has financial need in the continuing pursuit of their studies. Preference will be given to students who are former employees of Bel-Par Industries or who are children or legal dependents of employees.

Birks Family Foundation Bursary
Program code: UPBO-551
Value: $500
Awarded: Fall Spring Summer
Terms of reference: The bursary will be awarded annually to students in any faculty based on demonstrated financial need and satisfactory academic performance.

Bel-Par Industries Limited Bursary
Program code: UEBO-664
Value: $700
Awarded: Fall
Terms of reference: To an undergraduate student in any faculty. The bursary will be granted to a student who has maintained a satisfactory academic record and has financial need in the continuing pursuit of their studies. Preference will be given to students who are former employees of Bel-Par Industries or who are children or legal dependents of employees.

Birks Family Foundation Bursary
Program code: UPBO-551
Value: $500
Awarded: Fall Spring Summer
Terms of reference: The bursary will be awarded annually to students in any faculty based on demonstrated financial need and satisfactory academic performance.

Bel-Par Industries Limited Bursary
Program code: UEBO-664
Value: $700
Awarded: Fall
Terms of reference: To an undergraduate student in any faculty. The bursary will be granted to a student who has maintained a satisfactory academic record and has financial need in the continuing pursuit of their studies. Preference will be given to students who are former employees of Bel-Par Industries or who are children or legal dependents of employees.

Birks Family Foundation Bursary
Program code: UPBO-551
Value: $500
Awarded: Fall Spring Summer
Terms of reference: The bursary will be awarded annually to students in any faculty based on demonstrated financial need and satisfactory academic performance.
Father Della-Torre Bursary
Program code: UEB0-592
Value: $700
Awarded: Fall
Terms of reference: To entering students. Bursaries valued approximately at one semester's tuition are available to students entering from Secondary School. Applicants must demonstrate financial need and have satisfactory academic standing. Other bursaries valued approximately at one semester's tuition are available to students in any faculty, who have a minimum of 60 credit hours at Simon Fraser University, have maintained satisfactory academic standing and are in financial need. A Bursary Endowment Fund has been established in honor of Father Della-Torre for his 27 years of pastorate at the Sacred Heart Church, Vancouver. This fund will provide annual bursaries in perpetuity from the earned income.

Gordon R. Diamond Bursary
Program code: UEB0-535
Value: $1000
Awarded: Summer
Terms of reference: To undergraduate students in any faculty on the basis of demonstrated financial need and good academic standing.

Dr. Jack Diamond Bursary
Program code: UEB0-615
Value: $1000
Awarded: Summer
Terms of reference: Bursaries are available to students in any faculty with satisfactory academic performance and demonstrated financial need.

Helen Egri Bursary for Students with Dependents
Program code: UEB0-739
Value: $250
Awarded: Fall Spring Summer
Terms of reference: Bursaries will be awarded to students in any faculty on the basis of demonstrated financial need and satisfactory academic performance to students who financially support dependents.

Erm Fiorillo – Hal Davis CKNW Orphan’s Fund Bursary
Program code: UEB0-651
Value: $3000
Awarded: Fall
Terms of reference: To an entering student from a secondary school in the Vancouver School District. In future the bursary may be offered to students graduating from secondary schools within the lower mainland. This award will be renewable for 4 academic years provided the recipient maintains a 2.00 grade point average and registers in 9 credit hours during the tenure of the award. This bursary is for a capable student whose family cannot provide financial assistance with the costs of post-secondary education because they are on welfare assistance. Students must be nominated by their secondary school Principals and all applications will be evaluated by a school district selection committee and the successful candidate will be recommended to the Simon Fraser University Senate Undergraduate Awards Adjudication Committee.

Alex W. Fisher Bursary
Program code: UEB0-596
Value: $500
Awarded: Spring
Terms of reference: To a hard-working and deserving male student in need of financial assistance. Donated by Alex W. Fisher.

Lois M. Fisher Bursary
Program code: UEB0-597
Value: $500
Awarded: Spring
Terms of reference: To a hard-working and deserving female student in need of financial assistance. Donated by Mr. Alex W. Fisher.

William Gordon Memorial Bursary
Program code: UEB0-640
Value: $700
Awarded: Fall
Terms of reference: To an undergraduate student in any Faculty. The student must have a satisfactory academic standing and demonstrate financial need.

Dr. Ben Gullison Bursary
Program code: UPB0-640
Value: $500
Awarded: Fall
Terms of reference: To second, third or fourth year students in any undergraduate program. In recognition of Dr. Gullison's work, evidence of community service will be considered in making the award.

Hamber Foundation Bursary
Program code: UPB0-559
Value: $1000
Awarded: Fall
Terms of reference: To women students with satisfactory academic standing and need for financial assistance.

Madge Hogarth Bursaries
Program code: UEB0-674
Value: $325
Awarded: Fall
Terms of reference: To a third or fourth year student who is a single parent, pursuing a degree at Simon Fraser University. The bursary is also based on satisfactory academic performance and demonstrated financial need.

Ken and Su Jang Entrance Bursary
Program code: UEB0-657
Value: $1000
Awarded: Fall
Terms of reference: To an entering student who demonstrates financial need and who has a satisfactory academic record prior to entrance to Simon Fraser University.

Blayne and Sharon Johnson Bursary
Program code: UEB0-523
Value: $1100
Awarded: Summer
Terms of reference: Granted on the basis of demonstrated financial need and satisfactory academic performance.

Charles Chan Kent Golden Wedding Bursaries
Program code: UPB0-563
Value: $500
Awarded: Spring
Terms of reference: To a student who is proceeding to a degree in any field, has successfully completed at least one year at Simon Fraser University, and needs financial assistance. Preferably the bursary will be made to a student of Chinese descent.

Herald Lauer B’nai B’rith (Lions Gate Lodge 1716) Bursary
Program code: UPB0-564
Value: $750
Awarded: Fall
Terms of reference: To undergraduate students, in any faculty, who have determined financial need and satisfactory academic standing.

Dorothy and Alex MacDonald Bursary
Program code: UEB0-678
Value: $1000
Awarded: Fall
Terms of reference: One or more bursaries will be awarded to undergraduate students in any faculty who have a satisfactory academic record and demonstrates financial need. A short letter outlining dedication to and involvement in the community should accompany the application.

Sue MacDonald Memorial Bursary
Program code: UEB0-654
Value: $700
Awarded: Fall Spring Summer
Terms of reference: To women students who have proven financial need and a satisfactory academic record.

Dorothy May Martin Endowment Bursary
Program code: UEB0-648
Value: $1000
Awarded: Fall Spring
Terms of reference: To students who are returning to full-time studies subsequent to a substantial interruption of their academic career after secondary school. Students must have a satisfactory academic standing and demonstrate financial need.

Dr. Carol Matusioky Family Studies Bursary
Program code: UEB0-708
Value: $450
Awarded: Summer
Terms of reference: The bursary is given on the basis of demonstrated financial need and satisfactory academic performance. Preference will be given to a student in the Certificate in Family Studies program or, failing that, to a student in any faculty whose course work will prepare them to work with children, youth and families after university.

John Michael McLarty Bursary
Program code: UEB0-668
Value: $1000
Awarded: Fall
Terms of reference: To an undergraduate student in any faculty. The award will be granted to a student who has a satisfactory academic record and who is experiencing financial need in the continuing pursuit of studies. Preference will be given to Canadian students.

Jo-Ann Mychaluk Bursary
Program code: UEB0-672
Value: $1500
Awarded: Fall
Terms of reference: To a hard-working and deserving female student in need of financial assistance.

Jo-Ann Mychaluk Bursary
Program code: UEB0-602
Value: $750
Awarded: Fall
Terms of reference: To students with satisfactory academic standing. These bursaries are available to students who are or have been residents of the Chillcotin or Cariboo regions of BC. This fund has been established in memory of Jo-Ann Mychaluk who worked in the Centre for Distance Education.

Madeleine Nelson/Megan Thomas Bursary
Program code: UEB0-735
Value: $300
Awarded: Spring
Terms of reference: Granted to graduate or undergraduate students based on demonstrated financial need and satisfactory academic performance. Preference will be given to mature female students beginning or returning to University.

Nikitman/Chan Bursary
Program code: UEB0-737
Value: $1000
Awarded: Fall Spring Summer
Terms of reference: The bursary will substantially pay tuition and fees for two semesters and will be disbursed over two semesters. Bursaries will be granted on the basis of demonstrated financial need and satisfactory academic performance to students in...
any faculty of discipline. The recipient will be a single parent with preference given to entering students.

**Evelyn J. Oliver Bursary**
Program code: UEO-682
Value: $500
Awarded: Fall Spring
Terms of reference: To undergraduate students who have financial need and good academic standing. The Opsimath Club is an organization of senior (60 years) students.

**Stephen Palmu Memorial Bursary**
Program code: UPBO-566
Value: $100
Awarded: Fall Spring
Terms of reference: The award will be given annually in any semesters to undergraduate students in any faculty. Bursaries will be granted on the basis of demonstrated financial need and satisfactory academic performance. The recipient should be attending university as a mature student at least 5 years after leaving secondary school.

**Permanent Bursary Endowment Plan**
Program code: N/A
Value: $700
Awarded: Fall Spring
Terms of reference: Applications must be submitted on the Simon Fraser University bursary application form under the heading “Permanent Bursary Endowment Plan.”

Permanent Bursary Endowments provide annual bursaries in perpetuity from the earned income, and have been established by the following:
Betlin Packaging Limited Permanent Endowment Fund
Gretta Bowmer Memorial
State of Hans Christiansen
Mark and Phae Collins Fund (Vancouver Foundation)
Ted Cohen
Dr. Jack Diamond
Downs/Archambault
Drop-in Centre Permanent Endowment Bursary
David A. Freeman
Ellen Mary Greenaway
John R. Hecht
Stephen Hinchliff Memorial
A. Koch (Bella Koch Memorial)
Dr. W. Koerner
I. L. Kostman
Mrs. Katherine Leshgold
Samuel D. Leshgold
Dr. R.A. Palmer
Mr. and Mrs. N.L. Rothstein
M.M. Waterman
In Memory of Mrs. M.M. Waterman

Ben Wosk
Mr. and Mrs. Ben Wosk 40th Wedding Anniversary

**IODE Evelyn Price Memorial Bursary**
Program code: UEO-641
Value: $700
Awarded: Fall
Terms of reference: To undergraduate students who are in the final year of a degree program. Applicants must be Canadian citizens, be maintaining a satisfactory academic standing and be in financial need.

**Office of the Registrar Bursary for Physically Challenged Students**
Program code: UEO-665
Value: $500
Awarded: Fall
Terms of reference: To physically challenged undergraduate or graduate students in any faculty. The bursaries will be granted to physically challenged students holding satisfactory academic records and who are experiencing financial need in the pursuit of their studies.

**Rotary Club of Vancouver Sunrise Entrance Bursary**
Program code: UEO-706
Value: $1000
Awarded: Fall
Terms of reference: Based on financial need, to a student entering Simon Fraser University. Preference will be given to a student who resides in the City of Vancouver. The recipient of the award may be invited to make a presentation at a meeting of the Rotary Club of Vancouver Sunrise.

**Saskexpo ’86 Bursary**
Program code: UPO-636
Value: $3000
Awarded: Fall
Terms of reference: Saskatchewan secondary school student entering either Simon Fraser University in British Columbia or the University of Saskatchewan at Saskatoon in Saskatchewan. The award will alternate between Simon Fraser University and the University of Saskatchewan. For 1988-1989 (the first year of the award), the bursary was for a student attending Simon Fraser University. Selection will be made on the basis of financial need, the student’s demonstrated contribution to his/her school and community, and leadership potential. Consideration may also be given to the student’s academic record. Applications will be submitted to the Simon Fraser University Senate Scholarships, Awards and Bursaries Committee, in care of the Director of Financial Assistance at Simon Fraser University for students who plan to attend Simon Fraser University; and to the University of Saskatchewan Scholarships, Awards and Bursaries Committee, in care of the Registrar, for students planning to attend The University of Saskatchewan.

**William and Jane Saywell Bursary**
Program code: UPBO-682
Value: $1500
Awarded: Fall
Terms of reference: To a student who is a single parent and who has demonstrated a deep commitment to any field of study at Simon Fraser University and has financial need. A letter is required that outlines and discusses their extracurricular activities and interests that would demonstrate commitment to the chosen field of study.

**Sceptre Investment Counsel Administrative/Union Pension Plan Bursary**
Program code: UEO-721
Value: $1500
Awarded: Fall
Terms of reference: To a student in any faculty on the basis of demonstrated financial need and satisfactory academic performance.

**Sceptre Investment Counsel Administrative/Union Pension Plan Bursary**
Program code: UEO-604
Value: $500
Awarded: Fall Spring Summer
Terms of reference: This fund has been established to provide bursaries to physically challenged students. Up to 3 bursaries will be awarded on the basis of financial need. Adjudication will occur in consultation with the Physically Challenged Students Co-ordinator.

**Stanley Sievenpiper Bursary**
Program code: UEO-605
Value: $500
Awarded: Fall Spring
Terms of reference: One award in the Fall and one in the Spring on the basis of financial need. Preference will be given to third and fourth year students. This fund has been established in memory of Stanley Sievenpiper.

**Simon Fraser Student Society UCB Pub Bursaries**
Program code: UPBO-571
Value: $800
Awarded: Spring
Terms of reference: To students with special or emergency financial need with preference to those students who may not otherwise be able to attend Simon Fraser University. Applications are open to part or full time, beginning or continuing students as well as international students.

**Simon Fraser University 10th Anniversary Endowment Bursary**
Program code: UEO-504
Value: $500
Awarded: Fall Spring Summer
Terms of reference: This fund has been established to provide bursaries for students in financial need who maintain a GPA of 2.0.

**Simon Fraser University Bursary Endowment Fund**
Program code: UEO-502
Value: $500
Awarded: Fall Spring Summer
Terms of reference: All undergraduates in financial need are eligible to apply for these bursaries. A minimum CGPA of 2.0 is required.

**Simon Fraser University Daycare Bursaries**
Program code: UUBO-700
Value: $100
Awarded: Fall Spring Summer
Terms of reference: Applications for daycare bursaries are available at the Daycare Centre. Eligible students may qualify for a bursary provided that financial need can be demonstrated by a completed Canada Student Loan assessment or an Open Bursary assessment. Daycare bursaries are available to both graduate and undergraduate students.

**SFU Field School Bursary**
Program code: UUBO-510
Value: $250
Awarded: Fall Spring Summer
Terms of reference: Bursaries will be available each semester to Simon Fraser University students who...
are participating in a SFU Field School. Awards will be made to students in good academic standing on the basis of demonstrated financial need.

**SFU Foreign Exchange Bursary**
Program code: UUBO-512
Value: $250
Awarded: Fall Spring Summer
Terms of reference: Bursaries will be available each semester to Simon Fraser University students who are participating in Formal Exchange programs organized by SFU. Awards will be made to students in good academic standing on the basis of demonstrated financial need.

**SFU International Co-Operative Education Bursary**
Program code: UUBO-514
Value: $250
Awarded: Fall Spring Summer
Terms of reference: Bursaries will be granted to a student who is a single parent supporting a woman student in any faculty. The bursary will be awarded to a student with a satisfactory academic standing and satisfactory academic performance. Applicants must have completed one semester at Simon Fraser University as a full-time student.

**B and B Sivertz Bursary**
Program code: UEOB-656
Value: $1000
Awarded: Fall
Terms of reference: To undergraduate students who demonstrate financial need and satisfactory academic performance, and who have completed 30 credit hours at Simon Fraser University.

**Harry and Dora Annie Smee Bursary**
Program code: UEOB-608
Value: $800
Awarded: Fall
Terms of reference: Up to 3 bursaries will be awarded to students in any faculty who have completed at least 30 credit hours at Simon Fraser University. The awards will be based on financial need and satisfactory academic standing. Preference will be given to female students.

**Merle L. Smith Bursary**
Program code: UEOB-572
Value: $525
Awarded: Fall Spring Summer
Terms of reference: A physically challenged student in any faculty who is beyond first year studies. Initial preference will be given to wheelchair users.

**Squamish Nation Bursary**
Program code: UEOB-738
Value: $500
Awarded: Fall Spring Summer
Terms of reference: The bursary, based on financial need and community service, is granted to a student who is a member of the Squamish Nation. The bursary may be granted to graduate or undergraduate students in all disciplines. The successful student will have completed a minimum of 24 credits and will have achieved a minimum CGPA of 2.00. The application should include a discussion of the student's involvement in SFU or Squamish Nation community activities and a confirmation of the student's status with the Squamish Nation.

**Roger Ward and Avora Hamilton Award for Disabilities**
Program code: UEOB-644
Value: $1500
Awarded: Fall
Terms of reference: This bursary is for any Simon Fraser University student who is either entering the University for the first time or returning after an absence. Preference will be given to a mature female student. The bursary will be based on satisfactory academic performance and demonstrated financial need.

**TSSU Member Child Care Bursary**
Program code: UUBO-550
Awarded: Fall Spring Summer
Terms of reference: TSSU employees are eligible to apply to the TSSU Member Child Care Bursary for each semester in which they hold an appointment and are registered as students at SFU and in which they receive child care services from a paid child care provider. All applications are subject to verification. The applicant must identify him/herself as an employee in the bargaining unit on the bursary application.

**University Women’s Club of Vancouver Bursary**
Program code: UUBO-575
Value: $985
Awarded: Fall
Terms of reference: To a female student in any faculty enrolled in any program of study leading to a degree. Preference for one of the bursaries will be given to applicants who are sons, daughters, or legal dependents of members of the University Women's Club of Vancouver. The awards will be based on demonstrated financial need and satisfactory academic standing.

**Vancouver Foundation First Nations Bursary**
Program code: UEOB-697
Value: $500
Awarded: Fall
Terms of reference: Bursaries will be available annually in the fall semester to undergraduate or graduate Aboriginal students (First Nations, status or non-status, Metis or Inuit) who permanently reside in British Columbia. Awards will be granted on the basis of demonstrated financial need and satisfactory academic performance.

**Western Businesswomen’s Association Bursary**
Program code: UEOB-705
Value: $1000
Awarded: Fall
Terms of reference: To a full or part-time student who is either entering the University for the first time or returning after an absence. Preference will be given to a mature female student. The bursary will be based on satisfactory academic performance and demonstrated financial need.

**Morrис J. and Dena Wosk Bursary**
Program code: UEOB-712
Value: $1000
Awarded: Spring
Terms of reference: To an undergraduate student in any faculty, on the basis of demonstrated financial need and satisfactory academic performance.
should be a Canadian citizen or a permanent resident of the School of Engineering Science. The applicant must have a satisfactory academic record and must have demonstrated financial need.

Bursaries for Applied Sciences Students

IODA Burnaby Municipal Chapter Bursary
Program code: U7BO-574
Value: $1000
Awarded: Spring
Terms of reference: To a female undergraduate student enrolled in the 2nd, 3rd, or 4th year in any math or science Faculty or Professional School. The recipient should be in financial need and in satisfactory academic standing. The recipient must be a resident of North Vancouver or a graduate of a North Vancouver Secondary School (School District #44).

Hugh Clark Memorial Bursary in Engineering Science
Program code: U7BO-694
Value: $600
Awarded: Fall
Terms of reference: To an undergraduate student in the School of Engineering Science. The award will be granted to a student holding a satisfactory academic record and experiencing financial need in the continuing pursuit of his/her studies.

Delcan Corporation Bursaries
Program code: U7BO-667
Value: $1000
Awarded: Spring
Terms of reference: To undergraduate and Graduate students registered full time in the faculties of Science or Applied Sciences. It is the intention of the Delcan Corporation to promote socio-environmental research and studies related to major civil engineering projects; to support opportunities for women to enter careers at the management level in engineering; to increase high technological input into civil engineering, and to promote superior written and oral communication skills. Students will apply for these bursaries through Financial Assistance, and must include a letter of recommendation from the Office of the Dean of the major program.

Engineers’ Wives’ Association Bursary
Program code: U7BO-525
Value: $500
Awarded: Summer
Terms of reference: Granted on the basis of demonstrated financial need and satisfactory academic performance. The applicant should be a member of the Engineers’ Wives’ Association.

Ancie and Arthur Fouks Bursary in Publishing Studies
Program code: U7BO-526
Value: $1000
Awarded: Summer
Terms of reference: One or more bursaries will be awarded annually in the Fall semester to a student enrolled in a Master Program in Publishing Studies. Applicants must submit to the Publishing Studies Program Committee a resume, including education and work history, and at least one short sample of professional, academic or business writing or portfolio piece to be considered for the award.

JimMar Bursary in Engineering
Program code: U7BO-538
Value: $500
Awarded: Summer
Terms of reference: Bursaries will be granted to undergraduate students in the Faculty of Applied Sciences majoring in Engineering. The bursary is granted in any semester based on demonstrated financial need and satisfactory academic performance.

Rom Kerr Memorial Bursary
Program code: U7BO-599
Value: $1000
Awarded: Fall
Terms of reference: To undergraduate students. Preference will be given to students who are in their third or fourth year of studies in the Physics or Engineering Programs. This bursary fund has been established in memory of Ralph Kerr, a charter member of Simon Fraser University and a former employee of the Physics Department.

Toll Martinson Bursary in Communication
Program code: U7BO-518
Value: $1000
Awarded: Summer
Terms of reference: Granted on the basis of demonstrated financial need and satisfactory academic performance to undergraduate students in the School of Communication with a shown interest in the field of interpersonal communication.

Olga and Richard Murray Bursary in Applied Sciences
Program code: U7BO-725
Value: $1000
Awarded: Fall
Terms of reference: To graduate or undergraduate students in the Applied Sciences Faculty on the basis of demonstrated financial need and satisfactory academic performance. To the extent feasible, preference will be given to a student, or the spouse or child of a person, who is a member of the Telecommunication Workers Union or of Van-Tel Credit Union.

Pacific National Foundation Endowment Bursary
Program code: U7BO-655
Value: $2000
Awarded: Fall
Terms of reference: To a single parent, undergraduate student in the Faculty of Business Administration, Faculty of Education, Faculty of Applied Science or the Faculty of Science. The bursary will be granted to a student wishing to upgrade their professional skills. The student should have satisfactory academic standing and a demonstrated financial need. A letter expressing job goals and direction should accompany the application form.

Kazuya Shinyashiki Memorial Bursary in Computing Science
Program code: U7BO-515
Value: $1000
Awarded: Summer
Terms of reference: To an undergraduate student in computing science with financial need.

Sierra Systems Bursary in Computing Science
Program code: U7BO-663
Value: $2500
Awarded: Fall
Terms of reference: To third or fourth year students in the School of Computing Science. Applicants must have a satisfactory academic standing and financial need. One award will be given to a student from the Greater Vancouver Regional District and the other to a student from outside the Greater Vancouver Regional District.

Victor J. Sundberg Memorial Bursary in Engineering Science
Program code: U7BO-681
Value: $1000
Awarded: Fall
Terms of reference: To an undergraduate student in any faculty. Whenever possible, preference will be given to a student majoring in Engineering Science in the Faculty of Applied Sciences. Applicants must have a satisfactory academic record and be in financial need in the pursuit of their academic studies. As well, special consideration will be given to community involvement and citizenship, evidence thereof to be provided in an accompanying letter or supporting documentation.

Irene May Surby Bursary
Program code: U7BO-723
Value: $900
Awarded: Spring
Terms of reference: Granted to undergraduate students in the Faculty of Science or in the Faculty of Applied Sciences. The bursary is granted on the basis of demonstrated financial need and satisfactory academic performance.

Vancouver Foundation Health Science Bursaries
Program code: U7BO-578
Value: $500
Awarded: Fall
Terms of reference: The bursary assistance program is limited to full-time students studying in Health Sciences. The funds are directed to students who have completed at least two years of post-secondary education and can demonstrate financial need. Areas of study include any of the following: Pre-Med program, Kinesiology, Biomedical Engineering, and Gerontology.

Bursaries for Arts and Social Sciences Students

B.C. Shopping Centre Association Bursary
Program code: U7BO-604
Value: $1000
Awarded: Summer
Terms of reference: Granted on the basis of demonstrated financial need and satisfactory academic performance to an undergraduate student of the Certificate in Urban Studies.

BOMA Undergraduate Bursary in Urban Studies
Program code: U7BO-715
Value: $1000
Awarded: Fall
Terms of reference: Granted on the basis of demonstrated financial need and satisfactory academic performance. Preference will be given to a student in the Certificate in Urban Studies program, or failing that, to a student in any faculty whose...
course work involves some aspect of real estate studies as their primary focus. Gloria Garrett Carlton Bursary in Dance Program code: UEBO-522 Value: $900 Awarded: Fall Terms of reference: To an undergraduate student in the Faculty of Business Administration, or in the Faculty of Arts, preferably in Political Science. The student will be awarded to a student in good academic standing who is experienced in financial need.

Adaline May Clark Bursary Program code: UEBO-590 Value: $400 Awarded: Fall Terms of reference: To an undergraduate student in Spanish who is holding a satisfactory academic record and who demonstrates financial need.

Kenneth Conibeir Bursary in English Program code: UEBO-673 Value: $225 Awarded: Fall Terms of reference: To an undergraduate student in English who is obtaining a satisfactory academic record and who demonstrates financial need.

Laurence Mervyn Cox Bursary in English Program code: UEBO-541 Value: $500 Awarded: Fall Terms of reference: To a student who is holding a satisfactory academic record and who demonstrates financial need.

ICBC/Brian Jones Memorial Bursary in Criminology Program code: UEBO-524 Value: $750 Awarded: Summer Terms of reference: To an undergraduate student in the Faculty of Arts. Bursaries will be awarded to students who have prior schooling (or partially educated) in Canada. Linda Marguerite Johnston Bursary in the Arts Program code: UEBO-543 Value: $500 Awarded: Fall Terms of reference: The award(s) will be given to a student who graduated from the School for the Contemporary Arts. The recipient may be a Canadian citizen or permanent resident of Canada.

Grace Woodsworth MacInnis Bursary Program code: UEBO-609 Value: $500 Awarded: Spring Terms of reference: To an undergraduate student majoring in Criminology, on the basis of demonstrated financial need and satisfactory academic performance. The recipient should have demonstrated financial need and satisfactory academic standing.

MATCH International Bursaries in Honour of Rosemary Brown Program code: UEBO-607 Value: $625 Awarded: Summer Terms of reference: To an undergraduate student who either has an approved minor in Humanities or has an approved major in Women’s Studies or Political Science. The recipient should have demonstrated financial need and a satisfactory academic standing; preference given to a woman student.

Lydia McCombie Memorial Bursary Program code: UEBO-693 Value: $1200 Awarded: Fall Terms of reference: To an undergraduate student in the Faculty of Arts majoring in English. Bursaries will be granted to students who are approved in the School of Contemporary Arts. The recipient should have demonstrated financial need and satisfactory academic performance. The recipient may be a Canadian citizen or permanent resident of Canada. with preference given to individuals who have prior schooling (or partially educated) in Canada.
be granted on the basis of demonstrated financial need and satisfactory academic performance.

**Bruce McKelvie Endowment Bursary**
Program code: UEB0-601
Value: $400
Awarded: Fall

Terms of reference: To a student on the basis of financial need and satisfactory academic standing. To qualify students must have completed at least two years of study at Simon Fraser University and be focusing their studies on early BC History, namely 18th century forward. The bursary has been established by the Native Sons of British Columbia, Post #2.

**Robin Mercer Memorial Bursary in Archaeology**
Program code: UEB0-675
Value: $500
Awarded: Spring

Terms of reference: To an undergraduate student who is majoring in Archaeology and who has a satisfactory academic record and in financial need. This bursary was established in memory of Robin Mercer, a former alumnus of Simon Fraser University in the Faculty of Arts.

**Dr. Grazia Merler Bursary in French**
Program code: UEB0-714
Value: $500
Awarded: Spring

Terms of reference: To a student in French on the basis of demonstrated financial need and satisfactory academic performance.

**Margaret A. Mitchell Bursary in Political Science**
Program code: UEB0-687
Value: $2500
Awarded: Fall

Terms of reference: To an undergraduate female student in second, third or fourth year of studies who is majoring in Political Science. The award will be granted to a student holding a satisfactory academic record and demonstrated financial need. When possible, preference will be given to a candidate living in the east end of Vancouver or in Burnaby.

**Margaret A. Mitchell Bursary in Women’s Studies**
Program code: UEB0-688
Value: $2500
Awarded: Fall

Terms of reference: To an undergraduate female student in second, third or fourth year who is majoring in Women’s Studies. The award will be granted to a student holding a satisfactory academic record and demonstrated financial need. When possible, preference will be given to a candidate living in the east end of Vancouver or in Burnaby.

**Kelly O’Hagan Memorial Bursary**
Program code: UEB0-683
Value: $1000
Awarded: Fall

Terms of reference: To an undergraduate student enrolled in the Latin American Studies Field School. One or more bursaries will be awarded biennially on the basis of financial need and satisfactory academic standing. Departmental nomination/recommendation is required.

**Dr. Margaret Ormsby Bursary in History**
Program code: UEB0-719
Value: $850
Awarded: Fall

Terms of reference: Granted to undergraduate students in the Department of History based on demonstrated financial need and satisfactory academic performance.

**Rosslyn and Mary Penney Bursary in the Faculty of Arts**
Program code: UEB0-700
Value: $500
Awarded: Spring

Terms of reference: Awarded to an undergraduate student in the Faculty of Arts in their second, third or fourth year of study. The bursary will be granted to a student who is physically challenged. Bursaries will be granted on the basis of demonstrated financial need and satisfactory academic performance.

**Helen Pitt Bursary in Visual Arts**
Program code: UPBO-567
Value: $500
Awarded: Fall

Terms of reference: The Helen Pitt Bursary in Visual Arts will be awarded based on satisfactory academic standing and demonstrated financial need to second, third or fourth year full-time undergraduate students with an approved major or extended minor in Visual Arts. Please note that students receiving the Secondary Scholarship are not eligible to receive a bursary from the funds as well.

**George and Muriel Rogers Bursary in the Faculty of Arts**
Program code: UEB0-534
Value: $950
Awarded: Summer

Terms of reference: To an entering or returning undergraduate student in the Faculty of Arts. Preference will be given to a female student who is continuing her education after an absence of several years. Bursaries will be granted on the basis of demonstrated financial need and satisfactory academic performance.

**Rogers Sugar Ltd. Bursaries**
Program code: UPBO-553
Value: $1000
Awarded: Fall

Terms of reference: To undergraduate students, who are in their third or fourth year of study at Simon Fraser University. Two bursaries are available to students majoring in Business Administration, and three bursaries to students majoring in Economics, or the Sciences, including Mathematics and Statistics.

**Donald H.M. Ross Faculty of Arts Bursary**
Program code: UEB0-692
Value: $1000
Awarded: Fall

Terms of reference: To a third or fourth year undergraduate student in the Faculty of Arts. The bursary will be granted on the basis of demonstrated financial need and satisfactory academic performance.

**Paul and Ethel Seifner Linguistics Bursaries**
Program code: UEB0-661
Value: $1000
Awarded: Fall

Terms of reference: To undergraduate students pursuing a linguistics program who have satisfactory academic standing, demonstrated financial need, and have completed 15 credit hours at Simon Fraser.

**Frederick Shen Bursaries in Business Administration and Economics**
Program code: UPBO-704
Value: $500
Awarded: Summer

Terms of reference: Bursaries will be available annually to students with an approved major in Business Administration or Economics, on the basis of demonstrated financial need and satisfactory academic performance.

**Retail Loss Prevention Association of British Columbia/Deborah Singer Memorial Bursary**
Program code: UPBO-605
Value: $1000

Awarded: Summer

Terms of reference: To an undergraduate student in Criminology who is in satisfactory academic standing and demonstrates financial need.

**Sodexho Bursaries**
Program ID: UEB0-602
Value: $500
Awarded: Summer

Terms of reference: Awarded to full-time undergraduate students in the Faculty of Arts and Social Sciences. The bursaries are based on demonstrated financial need and satisfactory academic performance.

**Bursaries for Business Administration Students**

**3M Canada Company Bursary in Business Administration**
Program code: UEB0-601
Value: $1000
Awarded: Summer

Terms of reference: Granted on the basis of demonstrated financial need and satisfactory academic performance to undergraduate students in the Faculty of Business Administration.

**BC Bond Dealers Association Bursary**
Program code: UEB0-689
Value: $550
Awarded: Fall

Terms of reference: To an undergraduate student in the Faculty of Business Administration with a concentration in Finance. The bursary will be granted on the basis of demonstrated financial need and a satisfactory academic record.

**Connor, Clark & Lunn Bursary**
Program code: UEB0-531
Value: $500
Awarded: Summer

Terms of reference: Bursaries will be granted on the basis of demonstrated financial need and satisfactory academic performance to students in the Faculty of Business Administration.

**Faculty of Business Administration Alumni Bursaries**
Program code: UEB0-707
Value: $650
Awarded: Fall

Terms of reference: To an undergraduate student in the Faculty of Business Administration, or in the Faculty of Arts, preferably in Political Science. The Bursary will be given to a student in good academic standing who is experiencing financial need.

**Chien’s Cultural Foundation Bursary**
Program code: UEB0-707
Value: $650
Awarded: Fall

Terms of reference: To an undergraduate student in the Faculty of Business Administration, or in the Faculty of Arts, preferably in Political Science. The Bursary will be granted to a student in good academic standing who is experiencing financial need.
Terms of reference: Given to a third or fourth year student majoring in Business Administration with an Accounting or Finance concentration. The bursary will be granted to a student in good academic standing who is in financial need.

A. John Ellis Bursary in Business Administration
Program code: UEBO-711
Value: $1000
Awarded: Spring Summer
Terms of reference: To undergraduate students in the Faculty of Business Administration. The bursary will be awarded based on financial need and a satisfactory academic standing.

Executive Women International Bursary
Program code: UEBO-684
Value: $350
Awarded: Fall
Terms of reference: To an undergraduate female student enrolled in the Faculty of Business Administration in the second, third or fourth year of studies and who has a satisfactory academic record and financial need.

Aird Dundas Flavelle Memorial Bursary
Program code: UEBO-659
Value: $1200
Awarded: Fall
Terms of reference: To a student who has completed at least 15 hours at Simon Fraser University with a satisfactory academic standing and whose course of study is in the following areas: political science, economics and/or business administration.

Chu On Fok and Wai Yuk Fok Foundation Bursary
Program code: UEBO-545
Value: $250
Awarded: Summer
Terms of reference: The Bursary is granted in any semester to a student in any year with an approved Business Administration major who is experiencing financial need and demonstrates satisfactory academic performance. Where possible, preference may be given to single parent students.

Henderson Development Ltd. Bursary
Program code: UBPO-688
Value: $1000
Awarded: Fall
Terms of reference: To an undergraduate student in third or fourth year in Business Administration. The bursary will be awarded to a student in satisfactory academic standing and demonstrated financial need.

Dr. Cal Hoyt Bursary in Business Administration
Program code: UEBO-722
Value: $500
Awarded: Spring
Terms of reference: To full-time undergraduate students in the Faculty of Business Administration based on demonstrated financial need and satisfactory academic performance.

Ivanhoe Cambridge Bursary
Program code: UEBO-653
Value: $900
Awarded: Fall
Terms of reference: To an undergraduate student in the Faculty of Business Administration based on demonstrated financial need and satisfactory academic performance.

Bing Sum Yip Bursary in Business Administration
Program code: UEBO-686
Value: $1000
Awarded: Fall
Terms of reference: To an undergraduate student in the Faculty of Business Administration. The award will be granted to a student with a satisfactory academic record and demonstrated financial need.

Elizabeth Young Memorial Bursary
Program code: UEBO-695
Value: $500
Awarded: Fall
Terms of reference: One or more bursaries will be awarded to undergraduate female students in Business Administration who demonstrate satisfactory academic achievement and financial need.

Bursaries for Education Students

BC Exchange Teachers’ Association Bursary
Program code: UBPO-594
Value: $300
Awarded: Summer
Terms of reference: Granted to undergraduate or graduate students in the Faculty of Education, in any semester based on demonstrated financial need and satisfactory academic performance.

University Women’s Club of Vancouver/Jeann
Beaty Memorial Bursary in Education
Program code: UEBO-519
Value: $700
Awarded: Summer
Terms of reference: Granted on the basis of demonstrated financial need and satisfactory academic performance to a mature student in the Faculty of Education.

May Bennett Bursary
Program code: UEBO-585
Value: $150
Awarded: Fall
Terms of reference: To undergraduate students in the Faculty of Education. Applicants should be prepared to teach in British Columbia and demonstrate dedication to the teaching profession.

Canadian Yugoslav Community Association Undergraduate Bursary in Education
Program code: UEBO-703
Value: $1000
Awarded: Fall
Terms of reference: To an undergraduate third or fourth year student in the Faculty of Education. The bursary will be granted on the basis of demonstrated financial need and satisfactory academic performance.

Delta Kappa Gamma Society – Delta Chapter Bursary
Program code: UBPO-610
Value: $500
Awarded: Fall Spring
Terms of reference: The bursary is offered based on demonstrated financial need and satisfactory academic performance to students with dependents who are entering or enrolled in the Professional Development Program in the Faculty of Education at Simon Fraser University.

Faculty of Education Alumni Bursaries
Program code: UEBO-533
Value: $500
Awarded: Summer
Terms of reference: Bursaries will be granted on the basis of demonstrated financial need and satisfactory academic performance.
academic performance to students in the Faculty of Education.

**Faculty of Education Special Bursary**
Program code: UEBO-595
Value: $1000
Awarded: Fall, Spring
Terms of reference: To a student enrolled in the Professional Development Program who is also enrolled in a minor in Learning Disabilities, and who is entering EDUC 405 in either Spring or Fall semester.

The bursary is awarded for the semester in which EDUC 405 is undertaken.

**Polly Evenden Bursary in Geography Education**
Program code: UEBO-544
Value: $250
Awarded: Fall, Spring, Summer
Terms of reference: The bursary will be granted on the basis of demonstrated need and satisfactory academic performance to a student who has completed a bachelor's degree from Simon Fraser University with an honors or major in Geography or who is approved in such a program and is entering the Professional Development Program. Applicants must be intending to enter Geography upon graduation and provide a supporting letter outlining their career goals and this intent.

**Pacific National Foundation Endowment Bursary**
Program code: UEBO-655
Value: $2000
Awarded: Fall
Terms of reference: To a single parent, undergraduate student in the Faculty of Education majoring in Engineering. The bursary is granted in any semester based on demonstrated financial need and satisfactory academic performance.

**Maureen Pollard Memorial Bursary**
Program code: UEBO-734
Value: $750
Awarded: Summer
Terms of reference: Granted on the basis of demonstrated financial need and satisfactory academic performance to students in the Professional Development Program in the Faculty of Education. Preference, when possible, will be given to students in the Elementary stream.

**Sylvia R.H. Rice Memorial Bursary**
Program code: UEBO-660
Value: $1000
Awarded: Fall
Terms of reference: To a first year student in PDP in the Faculty of Education. Satisfactory academic standing and demonstrated financial need is required.

**VanCity Credit Union Bursary**
Program code: UPBO-638
Value: $500
Awarded: Fall
Terms of reference: To a student in any year of the Bachelor of Education, or the Professional Development Program in the Faculty of Education. Applicants must be a member of the VanCity Credit Union. Bursaries will be granted on the basis of demonstrated financial need and satisfactory academic performance.

**Vancouver Elementary School Teachers’ Association Bursary**
Program code: UPBO-577
Value: $500
Awarded: Fall
Terms of reference: To students who are residents of Vancouver or students who have attended a Vancouver elementary school and are proceeding to a degree or certificate in teaching. Recipients are selected also on the basis of need. The awards offered are as follows:
- the Elizabeth Dobbins Memorial Bursary open to students entering third year in the Faculty of Education at Simon Fraser University
- the Owen J. Thomas Memorial Bursary open to students entering the fourth year in the Faculty of Education at Simon Fraser University

**Bursaries for Science Students**

**Peter and Elizabeth Belton Bursary in Biology**
Program code: UEBO-729
Value: $500
Awarded: Summer
Terms of reference: To undergraduate students in the Faculty of Science. The bursary is granted on the basis of demonstrated financial need and satisfactory academic performance.

**Undergraduate Biology Student Union Bursary**
Program code: UEBO-658
Value: $750
Awarded: Fall Spring
Terms of reference: To third or fourth year students majoring in Science or Applied Sciences. Students must be Canadian citizens and graduates of Burnaby Senior Secondary School. Financial need and satisfactory academic standing is required.

**Canadian Federation of University Women – North Vancouver Bursary**
Program code: UPBO-574
Value: $1000
Awarded: Spring
Terms of reference: To a female undergraduate student enrolled in the 2nd, 3rd, or 4th year in any math or science Faculty or Professional School. The recipient should be in financial need and in satisfactory academic standing. The recipient must be a resident of North Vancouver or a graduate of a North Vancouver Secondary School (School District #44).

**Curzon-Digman Bursary**
Program code: UEBO-594
Value: $750
Awarded: Fall Spring
Terms of reference: Available to graduate students in physics or for majors or honours students in physics, mathematical physics, chemical physics, biophysics or other joint programs with physics. These bursaries are subjected to financial need and academic ability. Nominations will be made by the Chair of the Physics Department in consultation with financial Assistance.

**Delcan Corporation Bursaries**
Program code: UPBO-667
Value: $1000
Awarded: Spring
Terms of reference: To undergraduate and Graduate students registered full time in the faculties of Science or Applied Sciences. It is the intention of the Delcan Corporation to promote socio-environmental research and studies relative to major civil engineering projects; to support opportunities for women to enter careers at the management level in engineering; to increase high technological input into civil engineering, and to promote superior written and oral communication skills. Students will apply for these bursaries through Financial Assistance, and must include a letter of recommendation from the Office of the Dean of the major program.

**Greater Vancouver Mining Women’s Association Bursary**
Program code: UPBO-700
Value: $1000
Awarded: Fall
Terms of reference: To undergraduate students. Preference will be given to students who are in their third or fourth year of studies in the Physics or Engineering Programs. This bursary fund has been established in memory of Ralph Kerr, a charter member of Simon Fraser University and a former employee of the Physics Department.

**Margaret Lawson McTaggart-Cowan Alumni Bursary**
Program code: UEBO-600
Value: $675
Awarded: Fall
Terms of reference: To a female student who is majoring in Mathematics and who has completed at least two full-time semesters at Simon Fraser University.

**Oakley Family Endowed Bursary in Science**
Program code: UEBO-736
Value: $450
Awarded: Summer
Terms of reference: Granted on the basis of demonstrated financial need and satisfactory academic performance to students in the Faculty of Science.

**Pacific National Foundation Endowment Bursary**
Program code: UEBO-665
Value: $2000
Awarded: Fall
Terms of reference: To a single parent, undergraduate student in the Faculty of Business Administration, Faculty of Education, Faculty of Applied Sciences or the Faculty of Science. The bursary is granted in any semester based on demonstrated financial need and satisfactory academic performance.

**Sylvia R.H. Rice Memorial Bursary**
Program code: UEBO-660
Value: $1000
Awarded: Fall
Terms of reference: To a first year student in PDP in the Faculty of Education. Satisfactory academic standing and demonstrated financial need is required.

**VanCity Credit Union Bursary**
Program code: UPBO-638
Value: $500
Awarded: Fall
Terms of reference: To a student in any year of the Bachelor of Education, or the Professional Development Program in the Faculty of Education. Applicants must be a member of the VanCity Credit Union. Bursaries will be granted on the basis of demonstrated financial need and satisfactory academic performance.

**Vancouver Elementary School Teachers’ Association Bursary**
Program code: UPBO-577
Value: $500
Awarded: Fall
Terms of reference: To students who are residents of Vancouver or students who have attended a Vancouver elementary school and are proceeding to a degree or certificate in teaching. Recipients are selected also on the basis of need. The awards offered are as follows:
- the Elizabeth Dobbins Memorial Bursary open to students entering third year in the Faculty of Education at Simon Fraser University
- the Owen J. Thomas Memorial Bursary open to students entering the fourth year in the Faculty of Education at Simon Fraser University

**Bursaries for Science Students**

**Peter and Elizabeth Belton Bursary in Biology**
Program code: UEBO-729
Value: $500
Awarded: Summer
Terms of reference: To undergraduate students in the Faculty of Science. The bursary is granted on the basis of demonstrated financial need and satisfactory academic performance.

**Undergraduate Biology Student Union Bursary**
Program code: UEBO-658
Value: $750
Awarded: Fall Spring
Terms of reference: To third or fourth year students majoring in Science or Applied Sciences. Students must be Canadian citizens and graduates of Burnaby Senior Secondary School. Financial need and satisfactory academic standing is required.

**Canadian Federation of University Women – North Vancouver Bursary**
Program code: UPBO-574
Value: $1000
Awarded: Spring
Terms of reference: To a female undergraduate student enrolled in the 2nd, 3rd, or 4th year in any math or science Faculty or Professional School. The recipient should be in financial need and in satisfactory academic standing. The recipient must be a resident of North Vancouver or a graduate of a North Vancouver Secondary School (School District #44).

**Curzon-Digman Bursary**
Program code: UEBO-594
Value: $750
Awarded: Fall Spring
Terms of reference: Available to graduate students in physics or for majors or honours students in physics, mathematical physics, chemical physics, biophysics or other joint programs with physics. These bursaries are subjected to financial need and academic ability. Nominations will be made by the Chair of the Physics Department in consultation with financial Assistance.

**Delcan Corporation Bursaries**
Program code: UPBO-667
Value: $1000
Awarded: Spring
Terms of reference: To undergraduate and Graduate students registered full time in the faculties of Science or Applied Sciences. It is the intention of the Delcan Corporation to promote socio-environmental research and studies relative to major civil engineering projects; to support opportunities for women to enter careers at the management level in engineering; to increase high technological input into civil engineering, and to promote superior written and oral communication skills. Students will apply for these bursaries through Financial Assistance, and must include a letter of recommendation from the Office of the Dean of the major program.

**Greater Vancouver Mining Women’s Association Bursary**
Program code: UPBO-700
Value: $1000
Awarded: Fall
Terms of reference: To undergraduate students. Preference will be given to students who are in their third or fourth year of studies in the Physics or Engineering Programs. This bursary fund has been established in memory of Ralph Kerr, a charter member of Simon Fraser University and a former employee of the Physics Department.

**Margaret Lawson McTaggart-Cowan Alumni Bursary**
Program code: UEBO-600
Value: $675
Awarded: Fall
Terms of reference: To a female student who is majoring in Mathematics and who has completed at least two full-time semesters at Simon Fraser University.

**Oakley Family Endowed Bursary in Science**
Program code: UEBO-736
Value: $450
Awarded: Summer
Terms of reference: Granted on the basis of demonstrated financial need and satisfactory academic performance to students in the Faculty of Science.

**Pacific National Foundation Endowment Bursary**
Program code: UEBO-665
Value: $2000
Awarded: Fall
Terms of reference: To a single parent, undergraduate student in the Faculty of Business Administration, Faculty of Education, Faculty of Applied Sciences or the Faculty of Science. The bursary will be granted to a student wishing to upgrade their professional skills. The student should have satisfactory academic standing and a demonstrated financial need. A letter expressing job goals and direction should accompany the application form.

**Rogers Sugar Ltd. Bursaries**
Program code: UPBO-553
Value: $1000
Awarded: Fall
Terms of reference: To undergraduate students who are in their third or fourth year of study at Simon Fraser University. Two bursaries are available to students majoring in Business Administration, and three bursaries to students majoring in Economics, or the Sciences, including Mathematics and Statistics.
Faculty of Science Alumni Bursaries
Program code: UEOB-528
Value: $500
Awarded: Summer
Terms of reference: Bursaries will be granted on the basis of demonstrated financial need and satisfactory academic performance to students in the Faculty of Science.
SFU Molecular Biology and Biochemistry Student Union Bursary
Program code: UPBO-608
Value: $100
Awarded: Spring
Terms of reference: The bursary will be granted annually in the spring semester to a student with an approved major in either of the two programs. The bursary is based on financial need and satisfactory academic performance.
Irene May Surbey Bursary
Program code: UEBO-723
Value: $900
Awarded: Spring
Terms of reference: Granted to undergraduate students in the Faculty of Science or in the Faculty of Applied Sciences. The bursary is granted on the basis of demonstrated financial need and satisfactory academic performance.
Ken Turner Memorial Endowment Fund Bursary
Program code: UEBO-639
Value: $1000
Awarded: Fall Spring
Terms of reference: To third or fourth year undergraduate students with a specialization in Marine Biology. All students are welcome to apply however, preference will be given to a student from the Kimberly area if all other qualifications have been met. This bursary is in memory of Ken Turner, a graduate of the Resource Management Program. A departmental recommendation is also required.
Urea Formaldehyde Foam Insulation Action Association Bursary
Program code: UEOB-607
Value: $250
Awarded: Fall Spring
Terms of reference: To students who have completed at least 60 credit hours and who are studying in the areas of toxic chemicals or pollutants and their effects on human health and functioning. Please document eligibility. The Endowment has been established by the Association.
Vancouver Foundation Health Science Bursaries
Program code: UPBO-578
Value: $300
Awarded: Fall Spring
Terms of reference: The bursary assistance program is limited to full-time students studying in Health Sciences. The funds are directed to students who have completed at least two years of post-secondary education and can demonstrate financial need. Areas of study include any of the following: Pre-Med program, Kinesiology, Biomedical Engineering, and Gerontology.

Regulations for Academic and Service Awards
The following regulations govern all prizes, medals or awards over which the University has jurisdiction.

- In most cases, nominations are submitted directly to the Financial Assistance Office. Both undergraduate and graduate students are eligible unless otherwise indicated.
- Undergraduate students must have achieved a minimum CGPA of 2.00 during the semester of their contribution and must not be on academic probation, or in the case of first semester or transfer students, must possess an equivalent secondary school or college standing.
- Undergraduates must be registered in a minimum of nine semester hours of normal graded courses in the semester of eligibility. Challenge, audit, and credit free courses are not considered. Students who register in fewer than nine semester hours or subsequently drop below nine hours may have their awards cancelled.
- Graduate students must be registered for residence credit in an approved full time program in the semester of eligibility. Students who do not register or subsequently change to on-leave status may have their awards cancelled.
- Candidates must submit an application form to Financial Assistance or be nominated by a member (or members) of the Simon Fraser University faculty, staff, student body or alumni. Individuals submitting a nomination for an award must file the nomination form with Financial Assistance.
- Normally, only one intervening semester will be allowed between the semester in which the registered student made their contributions and the semester in which the award is adjudicated.
- Where contributions are over and above usual expectations, remunerated or assigned activities, such as course assignments or teaching duties, may be considered for recognition.
- Unless otherwise stated, awards are tenable only at Simon Fraser University for the semester indicated on the notice and may not be deferred.

Awards for All Students
Aboriginal Student Leader Award
Program code: UUAO-120
Value: $2000
Awarded: Fall Spring Summer
Terms of reference: Awards are available each year to graduate and undergraduate indigenous students attending Simon Fraser University who have a living connection to their own aboriginal community and who have completed 30 credit hours at the University. The recipient will be in good academic standing and have demonstrated excellence in academic or more of service to the University, community service, cultural contribution and overcoming personal or systemic barriers. Documentation supporting the student’s community connection, service and volunteer activities shall be submitted to Financial Assistance. The Senate Undergraduate Awards Adjudication Committee will make the award.

Alumni Association Outstanding Student Leadership Award
Program code: UPAA-167
Value: $2000
Awarded: Summer
Terms of reference: Granted to a student in any faculty who is in his/her 3rd or 4th year with a minimum of thirty (30) credit hours completed at SFU. The recipient will have demonstrated a combination of outstanding academic achievement and outstanding performance or leadership in another endeavour at SFU or in the broader community. The achievement may be in athletics or the arts, in service to the University or to the community at large. Nominations, including a letter and resume from the nominee and a supporting letter from an individual who can speak to the achievements of the nominee, should be sent from the chair or director of the nominee’s department or school to the Registrar by April 15 each year. The award will be made by the Senate Undergraduate Awards Adjudication Committee. Presentation of the Alumni Association Outstanding Student Leadership Award will take place at the annual Outstanding Alumni Awards Ceremony. Nominations or applications should be forwarded to the Director, Student Academic Resources by April 15th.

BC Bearing Engineers Limited Award
Program code: UEAO-537
Value: $325
Awarded: Fall
Terms of reference: Granted to a co-op student in any faculty who is doing his/her work term(s) in Latin America, including Mexico. The Award is intended to offset travel and/or living expenses for the period of time (not exceeding one year) spent in Latin America, or Mexico. If more than one student applies for the award, then the best CGPA will be the deciding factor. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the recommendation of the director, co-operative education.

B.C. Sugar Achievement Award
Program code: UEAO-526
Value: $5000
Awarded: Summer
Terms of reference: Granted to a SFU faculty, staff member, student or multiple of the same who meet the following criteria: winner of national or international competition, or recipient of national or international prize or award; history of leadership in recipient’s field; accomplishment(s) relate directly to responsibilities and activities at SFU. Nominations of an individual or group should be forwarded to the Director, Student Academic Resources by April 15th of each year. Nominations should include a description of the nominee’s achievements, a curriculum vitae (if appropriate), and three letters of recommendation.

Deans’ Convocation Medals
Program code: UUAO-002
Awarded: Summer
Terms of reference: To a graduating student from each faculty. The dean of the respective faculty will recommend a student who is from the top 5% of graduating students within that faculty. The top 5% is defined by cumulative GPA. All nominations are to be forwarded to the assistant to the registrar.

Terry Fox Gold Medal
Program code: UUAO-001
Value: $1000
Awarded: Summer
Terms of reference: To any person who has demonstrated those personal qualities of courage in adversity and dedication to society which have been exemplified by Terry Fox and his Marathon of Hope. Nominations or applications should be forwarded to the Director, Student Academic Resources by April 15th.

Alexander Fraser Award in Piping and Drumming
Program code: UEAO-011
Value: $500
Awarded: Spring
Terms of reference: These awards are made following a competition among the pipers and drummers on campus. A cash award will be made to the student judged best in each of the two categories. In addition, a cash award may also be made to the student who has contributed most significantly to the development of Highland tradition at Simon Fraser University.

Gandhi Essay Award
Program code: N/A
Value: $350
Undergraduate

**Judy Kelly Humanitarian Award**
Program code: UEAO-522
Value: $675
Awarded: Summer
Terms of reference: To an undergraduate student in any Faculty who has provided volunteer services to the university community. Particular preference will be given to students who have provided aid to students with physical disabilities. Applicants may apply for the award themselves, or may be recommended by a member of the university community. Nominations or applications should be forwarded to the Director, Student Academic Resources by April 15th.  

**Living Personal Truths Award**
Program code: UPAO-195
Value: $400
Awarded: Summer
Terms of reference: The award is given to a student in any faculty who has demonstrated a significant contribution to reducing discrimination and/or increasing awareness of sexual orientation and gender diversity. Applications must include a letter and resume form the student and a supporting letter from an individual who can speak to their achievements. Nominations or applications should be forwarded to the Director, Student Academic Resources by April 15th.

**Stephen Harold Edward Herring Prize**
Program code: UEAO-548
Value: $1500
Awarded: Summer
Terms of reference: The Herring Prize will honour the development of a device or innovative way to restore lost functions and provide increased independence for people who have been paralyzed. Submissions will be evaluated by the Herring Committee based on the originality of the research, keeping in mind the contribution of direct and effective research in alleviation and curing injuries made by impact that cause any paralysis. Eligible candidates will be graduate or undergraduate students at SFU in any faculty. The submission should include a description of the research, device or innovation and a letter of support from a faculty who knows the student well and can attest to the originality of the research and role played by the student. Submissions should be sent to the Director, Student Academic Resources by April 15th. The Herring Prize will be awarded at the February Awards Ceremony in the following year. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Student Academic Resources Committee.

**Hong Kong University BC Alumni Award**
Program code: UEAO-538
Value: $1000
Awarded: Spring
Terms of reference: To a Co-op student in any faculty who has completed a year of work placement in Hong Kong. The award is intended to offset travel and/or living expenses for the period of time (not exceeding one year) spent in Hong Kong. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the recommendation of the Student Academic Resources Committee.

**Honor Roll**
Program code: N/A
Awarded: Fall Spring Summer
Terms of reference: A limited number of students will be admitted each semester to the University honor roll, mainly on the basis of excellent work completed in the previous semester. This award will be shown on the student’s permanent record. Admission to the honor roll requires that the student:  
- must have completed a minimum of 30 semester hours at Simon Fraser University by the end of the semester being evaluated  
- must have completed at least 12 semester hours of credit in the semester being evaluated  
- must achieve a minimum semester GPA of 4.00 calculated on all normally graded courses completed in the semester being evaluated.

**C.D. Nelson Memorial Prize**
Program code: UEAO-019
Value: $500
Awarded: Summer
Terms of reference: The C.D. Nelson Memorial Prize was established at Simon Fraser University in 1975 in memory of Professor C.D. Nelson, first head of Biological Sciences, who gave so fully of himself to the whole University community. One C.D. Nelson Memorial Prize, valued at approximately $500 for the purchase of a Work of Art, will be awarded annually. The prize will be granted to a current or retired faculty or staff member, or to a current student who has made an outstanding contribution to Simon Fraser University other than normal or academic work. Nominations are to be made through Student Academic Resources, Office of the Registrar by April 15th. The Prize will be made by the Senate Undergraduate Awards Adjudication Committee.

**Dr. M. Sheila O’Connell Prize for Children’s Literature**
Program code: UEAO-534
Value: $1500
Awarded: Summer
Terms of reference: To an undergraduate student who has completed work in the general subject area of children’s literature, fiction or criticism or is working towards publication of a piece of children’s literature. A proposal outlining the story should be forwarded by candidates to the cross-disciplinary committee from the Faculty of Education, the Department of English and the School of Communication. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the recommendation of the joint committee.

**Eileen Purkiss Memorial Endowment Award**
Program code: UEAO-023
Value: $100
Awarded: Summer
Terms of reference: The award will be available to graduate and undergraduate international students. In adjudicating the award, consideration will be given to the special contributions made by the student to the social and cultural exchange and development of international students at Simon Fraser University with specific reference to volunteer service, promotion of goodwill, and the organization of social, cultural and related events. Applications or nominations may be made through Financial Assistance, by April 15th, with appropriate letters of reference. The endowment fund is established in memory of Eileen Purkiss.

**Recreation Leadership Award**
Program code: UUAO-101
Value: $600
Awarded: Fall Spring
Terms of reference: The purpose of these awards is to recognize and encourage students’ contribution in, and development of, leadership initiatives in the University recreation programs. Up to 32 awards of $600 each are available to entering students on the basis of recommendations from secondary school of demonstrated leadership in the school program, and to continuing students who have demonstrated consistent leadership skills and potential for further development. Students must be nominated by the Director of Recreational Services and Athletics, maintain a cumulative 2.0 grade point average and register in nine credit hours. Nomination will be made by the Director of Recreational Services and Athletics to the Senate Undergraduate Awards Adjudication Committee.

**Recreation Promotion Award**
Program code: UUAO-110
Value: $500
Awarded: Fall Spring Summer
The awards recognize and encourage gifted physically active university students who contribute to
the promotion of a university culture of physical activity. The award is available to entering and continuing full-time undergraduate students in good academic standing (maintain a minimum cgpa of 2.00) who have demonstrated a personal physical activity commitment and promoted physical activity on-campus. Student must be nominated by the Director of Recreational Services and Athletics. The awards will be granted by the Senate Undergraduate Awards Adjudication Committee.

Gordon M. Shrum Gold Medal Program code: UPAO-022
Value: $500
Awarded: Summer
Terms of reference: An award of a gold medal and $500 is to be awarded in May of each year to an outstanding student in any faculty who has completed the requirements for the Bachelor's degree during the preceding Summer, Fall or Spring semester. The award shall be made to the student who has maintained a high scholastic standing during not fewer than six semesters or the equivalent of 60 hours or more at Simon Fraser University and who, by participating in extracurricular activities, has shown outstanding qualities of character and unfailing devotion to Simon Fraser University. The award shall be made upon the recommendation of the Awards Committee after consultation with members of the faculty and representatives of the student body.

Simon Fraser University Pipe Band Memorial Award Program code: UEAO-043
Value: $1500
Awarded: Fall
Terms of reference: To a Simon Fraser University student playing with the University Pipe Band who has particular promise in piping or drumming and who has maintained a satisfactory academic record. Recommendation is required from the SFU Pipe Band Major.

Simon Fraser University Piping Award Program code: UUAO-006
Value: $600
Awarded: Fall Spring Summer
Terms of reference: To students who are members of the Simon Fraser University Pipe Band in recognition of their significant contribution to the University. The Ceremonies Office will forward nominations to Financial Assistance.

Ted Sinnott Memorial Award Program code: UEAO-027
Value: $500
Awarded: Summer
Terms of reference: To a student who has made a contribution of a voluntary nature, to the University community, thereby reflecting positively the cheer and goodwill which the late Ted Sinnott generated at Simon Fraser University for so many years. Nominations or applications should be forwarded to the Director, Student Academic Resources by April 15th.

William A. (Bill) Stewart Volunteer Leadership Award Program code: UEAO-049
Value: $800
Awarded: Summer
Terms of reference: To graduate or undergraduate students in any faculty whose volunteer activities have made a significant contribution to the development and/or improvement of campus community life. The application should include a letter from the student outlining his/her volunteer activities and the impact those activities have had on campus life. Nominations or applications should be forwarded to the Director, Student Academic Resources by April 15th.

Dr. Abe Unrau Memorial Co-op Prize Program code: UEAO-039
Value: $400
Awarded: Summer
Terms of reference: To an outstanding co-op student in any faculty who, at the time of graduation, has the highest cumulative grade point average and who has successfully completed a minimum of four work semesters. A student from the School of Engineering Science co-op program may also be considered if he/she has successfully completed three work terms and a research semester (the undergraduate thesis project) producing an undergraduate thesis. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the director, co-operative education program.

Joan H. Walter Memorial Award Program code: UEAO-030
Value: $100
Awarded: Fall
Terms of reference: This award will be awarded biannually to a student who has been employed in the Tour Guide Service. Special consideration will be given to the student’s willingness to serve and personal commitment to the University community and to the degree to which Simon Fraser University has been promoted with enthusiasm and accurate information. A nomination from the Director of Student Recruitment is required.

Roger G. Welch Alumni Prize Program code: UEAO-172
Value: $1000
Awarded: Summer
Terms of reference: To an alumnus/alumni of Simon Fraser University pursuing a degree program or a post baccalaureate diploma. The prize will honor or recognize students who have demonstrated leadership, citizenship and dedication in service to the University community. Participation in the wider community will also be considered. The granting of the prize will be based on evidence submitted by the applicant or by another person, group or association. Nominations or applications should be forwarded to the Director, Student Academic Resources by April 15th.

Westcoast Coalition for Human Dignity Community Service Award Program code: UEAO-201
Value: $350
Awarded: Summer
Terms of reference: The award is offered to students in any faculty based on demonstrated commitment to and leadership in opposing bigotry and advancing human rights through their work in schools, community or non-governmental organizations that work to eliminate racism, sexism, xenophobia, and/or homophobia or that work to provide services to victims of such. To be considered eligible, candidates must demonstrate their involvement in unpaid volunteer activities by providing their resume and cover letter describing their volunteerism, the length of service and time-commitment dedicated to such interests and including a letter of reference from a supervisor of the candidate’s volunteer work. Nominations or applications should be forwarded to the Director, Student Academic Resources by April 15th.

Awards for Applied Sciences Students

Mark and Nancy Brooks Computing Science Innovation Award Program code: UEAO-052
Value: $800
Awarded: Fall
Terms of reference: Granted to a Computing Science student in good academic standing who demonstrates exceptional accomplishment, promise or innovation in the area of computing science outside classroom work. The application should include a description of the interest or innovative ideas that student is considering. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Director, School of Computing Science.

Communication Alumni Endowment Award Program code: UEAO-155
Value: $1500
Awarded: Summer
Terms of reference: To a third or fourth year undergraduate student in Communication who submits the best essay in the field of Communication. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Director, School of Communication.

Computing Science Graduation Award Program code: UEAO-529
Value: $500
Awarded: Summer
Terms of reference: To the top graduating student in Computing Science. If there are two students who qualify, the award will be given to the student who has demonstrated service to the computing science undergraduate student body or to the university. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Director or the School of Computing Science.

Computing Science Student Society Award Program code: UEAO-042
Value: $2000
Awarded: Fall Spring
Terms of reference: To undergraduate students in Computing Science, who if declared majors, meet the GPA requirements to stay in the School, or if not a declared major, meet the School’s GPA requirements to declare. Candidates need not have completed all the coursework required to be a member of Computing Science. Applicants must demonstrate service to the University community in particular to the undergraduate Computing Science Student Society and/or the Computing Science undergraduate student body. Financial need may be taken into account if more than one student qualifies for the award. Applications for the award should be submitted to the Director of the School of Computing Science and will include a letter discussing university community involvement or involvement with the Society. Recommendations from any member may be submitted to the Director. The awards will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Director of the School of Computing Science in consultation with the undergraduate Computing Science student society. Applications for the award should be submitted to the Director of the School of Computing Science by January 2 (Spring Award) or by September 1 (Fall Award).

Electronic Arts Inc. Award of Excellence in Computing Science Program code: UPAO-186
Value: $500
Awarded: Summer
Terms of reference: An award, valued at $500, will be given to the top graduating student in Computing Science. The award recipient will be invited to visit the Electronic Arts (Canada) Inc. Studio. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Director of the School of Computing Science.

Engineering Science Undergraduate Student Project Award Program code: UEAO-535
Value: $100
Awarded: Fall Spring
Terms of reference: To a student or a team of students in the field of Engineering Science who have developed a project that demonstrates notable achievement in their field of study and who have demonstrated their commitment to the field of study. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Director, School of Computing Science.
Applications for the award will be received by the Director, School of Kinesiology in August each year. Selection will be made and announced on the 1st of September. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Director, School of Kinesiology.

Radio Station CHMB AM1320 Award in Communication
Program code: UEAO-523
Value: $2000
Awarded: Spring
Terms of reference: Available to a student enrolled in the Communications Honors program to assist with the cost of completing the Honors project. Preference will be given to a multi-lingual student whose Honors project addresses issues regarding the diversity of languages and cultures in the Greater Vancouver area with a focus on the role of the mass media, preferably radio. Applications should be submitted to the School of Communication by January 2. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Director, School of Communication.

Rogers Communications Inc. Award in Communication
Program code: UEAO-120
Value: $2000
Awarded: Spring
Terms of reference: To student enrolled in the Communications Honors program to assist with the cost of completing the Honors project. Preference will be given to a student whose Honors project addresses recent issues in Communication (e.g., relating to television or to the production of a video). Applications should be submitted to the School of Communication by January 2. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Director, School of Communication.

Ken Spencer SFU Business/Engineering Venture Plan Competition
Program code: UPAO-191
Value: $1000
Awarded: Fall
Terms of reference: The Ken Spencer SFU Business/Engineering Venture Plan is organized as part of undergraduate courses in offered in both the Faculty of Business Administration (BUS 477), and the Faculty of Applied Sciences (ENS 201). To ensure that the venture plan includes technical and business aspects, teams must consist of at least one undergraduate student from each of the Applied Sciences (Engineering) and Business Administration faculties. A Management of Technology MBA student with an engineering degree will be selected to assist the course instructors by providing mentorship to the competitors. This mentor will provide technical expertise and guide students as they hone venture plans and polish presentation skills. As part of the courses BUS 477 and ENSC 201, teams of students for both courses (with a minimum of one Business student and one Engineering student per team) will prepare a business plan to be graded jointly by the two course instructors. Typically, the business plan will comprise 35% of the course grade. At the end of the semester in which the courses are offered, the two course instructors will identify the top six business plans to be entered into the jury-adjudicated Ken Spencer Venture Plan Competition. Written and oral presentations will be made to the jury who will rank their recommended 1st, 2nd and 3rd place teams. Once the Venture Plan Competition Jury has determined their recommendations, the Chair of the Venture Plan Competition Jury will present and discuss the selected winners with the Deans of Applied Sciences and Business Administration who will forward the nominations to the Senate Undergraduate Awards Adjudication Committee. Of the finalists, three teams will receive prizes – a First Prize of $3000, a Second Prize of $1500 and a Third Prize of $500. Prize values may change in succeeding years. Winners will be announced at an annual function attended by faculty, students and competition sponsors.

Awards for Arts and Social Sciences Students

Archaeometry Prize
Program code: UEAO-003
Value: $275
Awarded: Summer
Terms of reference: To an undergraduate or graduate student who has shown exceptional scholarship and an interest in the application of Physical Science to Archaeology. This prize will be awarded by the Senate Undergraduate Awards Adjudication Committee on the nomination of the faculty members involved in Archaeometry.

Noel Archambault Memorial Award in Film
Program code: UEAO-050
Value: $1500
Awarded: Summer
Terms of reference: Granted to an undergraduate student in the School for Contemporary Arts, film major program whose fourth year film/video project best invokes Noel Archambault’s spirit of independence, innovation and technical ingenuity. The award will be adjudicated on the basis of the proposal for their upcoming fourth year film or video project the film major students present at the conclusion of their third year in the film program. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the director, School for Contemporary Arts.

Jane Austen Society Prize
Program code: UPAO-132
Value: $100
Awarded: Summer
Terms of reference: To a student for the best essay by an upper-level undergraduate student on the subject of Jane Austen, her life, works, or closely related social history. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the recommendation of the English Department. Applications and/or nominations are to be forwarded to the Dean of Graduate Studies office for adjudication.

G.A.B.C. Chuck Bayle Memorial Award
Program code: UEAO-519
Value: $1000
Awarded: Fall
Terms of reference: To graduate or undergraduate students who have shown interest and demonstrated participation in volunteer work in the Greater Vancouver area with a focus on the role of the mass media, preferably radio. Applications should be submitted to the School of Communication by January 2. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the recommendation of the English Department. Applications and/or nominations are to be forwarded to the Dean of Graduate Studies office for adjudication.

B.C. Federation of Labour Award
Program code: UPAO-190
Value: $500
Awarded: Fall
Terms of reference: The award will be given to an undergraduate student with an approved minor in Labour Studies, on the basis of satisfactory academic performance and involvement in volunteer activities. Candidates should demonstrate their involvement in volunteer activities by providing their resume and a letter specific to these interests. The representative of the BC Federation of Labour will be invited to meet each award winner. This award is granted by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Director of the Centre for Labour Studies.
British Columbia Psychological Association Award
Program code: UPAO-005
Awarded: Summer
Terms of reference: A certificate of excellence will be awarded for outstanding achievement in the study of psychology to a graduating student who has completed the requirements for a Bachelor's degree over the previous summer, fall or spring semester.

Robert C. Brown Award
Program code: UEAO-195
Value: $2000
Awarded: Summer
Terms of reference: To a student in the Faculty of Arts and Social Sciences who has completed a minimum of 60 credit hours at SFU. The recipient will have demonstrated a combination of outstanding academic achievement and outstanding performance or leadership in another endeavour at SFU. This may be in athletics, in service to the University, or in representing the University to the community at large. The nominations should include the nominee’s résumé and a letter of recommendation from a faculty member in the Faculty of Arts and Social Sciences. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the recommendation of the Chair of the Faculty of Arts and Social Sciences. Nominations should be forwarded to Financial Assistance Office by April 15th.

Bureau du Quebec Book Prizes in Quebec Studies
Program code: UPAO-177
Awarded: Summer
Terms of reference: To one top ranking undergraduate student and one top ranking graduate student in the Department of French having a concentration in Quebec studies within the Department’s French-Canadian course offerings, including Quebec literature and/or linguistics. The awards will be made by the Senate Undergraduate Awards Adjudication Committee and the Senate Graduate Awards Adjudication Committee on the recommendation of the Chair, Department of French. The Department of French reserves the right to withhold one or both prizes in any given year.

Bice Caple Awards
Program code: UUAO-005
Value: $1000
Awarded: Fall
Terms of reference: Outstanding contribution to the Fine Arts at Simon Fraser University during the previous year. During the tenure of the award each recipient must:
• be a registered student at Simon Fraser University
• pursue a course of studies and demonstrate academic competence
• continue to be active in Arts at Simon Fraser University

Normally, the award may be held only once, but in no case may an individual receive the award more than twice. Each recipient will be nominated by the Director of the School for Contemporary Arts, the award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Chair, School for Contemporary Arts.

William L. Cleveland Essay Prize in African Middle-Eastern Asian History
Program code: UEAO-053
Value: $200
Awarded: Summer
Terms of reference: To the author of a superior undergraduate term report or essay on any topic concerning African, Middle-Eastern or Asian history. Special consideration will be given for originality in analysis and treatment of the area. Essays are to be submitted to the Department by April 15th, and must have been written in one of the three previous semesters.

Simon Fraser University Service Awards (Contemporary Arts)
Program code: UUAO-000
Value: $100
Awarded: Fall/Spring/Summer
Terms of reference: To students in the School for Contemporary Arts who have made a significant contribution in their field of study. Candidates must have been registered in a minimum of six credit hours (hours with a calculated GPA) with satisfactory academic standing in the qualifying semester of contribution. Graduate students may also be recognized for these awards. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the director, School for Contemporary Arts.

Criminology Award in Diversity & Public Safety
Program code: UPAO-194
Value: $750
Awarded: Summer
Terms of reference: An award will be made available to an undergraduate student in Criminology, studying the interaction between visible minorities and traditional Canadian crime prevention programs and law enforcement. The Award will be granted by the Senate Undergraduate Awards Adjudication Committee, on the nomination of the Director of the School of Criminology.

Paul Delany Graduation Award in English
Program code: UEAO-058
Value: $100
Awarded: Fall/Spring/Summer
Terms of reference: Awarded annually to the student graduating with the highest CGPA upon completion of an English major. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the English Department.

Al Eisenerg Gerontology Award
Program code: UEAO-041
Value: $1000
Awarded: Fall
Terms of reference: To an undergraduate mature student whose area of study is Gerontology. A departmental nomination is required from the Chair of Gerontology.

European History Book Prize
Program code: UEAO-174
Value: $250
Awarded: Summer
Terms of reference: The author of a superior undergraduate term report or essay on any topic concerning European history. Special consideration will be given for originality in analysis and treatment of the area. Essays are to be submitted to the Department by April 15th and must have been written in one of the three previous semesters. The department of History awards committee will make a nomination to the Senate Undergraduate Awards Adjudication Committee. The History department will undertake to publicize and adjudicate the essay competition.

Institute for the Humanities Travel-Study Award
Program code: N/A
Value: $1500
Awarded: Spring/Summer
Terms of reference: Granted to third or fourth year students who have completed two humanities courses, to assist them to attend a travel-study/field school program offered by Simon Fraser University. Letters of applications should be sent to the Director, Institute for the Humanities, and must include a resume, copy of university transcript, statement describing the relevance of the program/field school to the student’s academic program and goals, and two letters of reference from Simon Fraser University faculty. The application deadline is March 15.

Nick Kravariotis Memorial Scholarship in Hellenic Studies
Program code: UEAO-200
Value: $600
Awarded: Summer
Terms of reference: Granted to a student with the highest GPA in intermediate modern Greek language. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Chair, Hellenic Studies.

Betty Lambert Memorial Prize
Program code: UEAO-014
Value: $300
Awarded: Summer
Terms of reference: To an undergraduate student enrolled in at least nine credit hours. The prize will be based upon the best unpublished essay submitted. Students must apply to the Department of English by February 15th. The endowment fund is established in memory of Betty Lambert.

Evelyn Lett Award in Women's Studies
University Women's Club of Vancouver
Program code: UPAO-196
Value: $1300
Awarded: Spring
Terms of reference: The award is available to a student who is enrolled in a Women’s Studies major or joint major, Women’s Studies minor, Women’s Studies extended minor or Gender Studies minor. Preference will be given to those students who have contributed to the Women’s Studies Department and/or to women’s issues on campus or in the community. Student should document their community service in a letter and resume along with their application package. The award is granted by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Chair, Women's Studies.

Cliff Lloyd Memorial Award
Program code: UEAO-016
Value: $100
Awarded: Summer
Terms of reference: To an honors student in economics graduating with the highest CGPA on the nomination of the Department of Economics.

Barry and E. Anne MacDonald Asia-Canada Awards
Program code: UEAO-525
Value: $1500
Awarded: Summer
Terms of reference: Awards will be made to undergraduate students in Asia-Canada Program attending a field school or exchange program through Simon Fraser University. Applications should include a letter outlining the student's goals for participation in the field school or exchange program, a resume and academic record. If no suitable field school or exchange program candidate is identified in a given year, the award will be made to the top third or fourth year student in the Asia-Canada Program. The award will be made by the Senate Undergraduate Awards for Summer.
Undergraduate

Adjudication Committee on the nomination of the
Director, Asia-Canada Program.

Marcia Scholarship in Electroacoustics
Program code: UEAO-130
Value: $350
Awarded: Summer
Terms of reference: To a graduate or undergraduate student from any discipline who shows promise and/or excellence in the field of electroacoustics, whether for composition, research, performance or production. A department nomination is required.

Gerald and Sheahan McGavin Award
Program code: UEAO-056
Value: $1400
Awarded: Fall Spring Summer
Terms of reference: To undergraduate students in the School for Contemporary Arts based on evidence of volunteer involvement in community service and academic merit. The application must include a detailed discussion of the student's volunteer involvement in community activities. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Director, School for Contemporary Arts.

Stephen McIntyre Book Prize in History
Program code: UPAO-018
Value: $400
Awarded: Summer
Terms of reference: To the top graduating student in history in recognition of academic excellence on the nomination of the Department of History Awards Committee.

Jean McLeod Memorial Award in Music
Program code: UPAO-180
Value: $500
Awarded: Fall
Terms of reference: To an undergraduate student in the School for the Contemporary Arts majoring in music. The successful applicant will be a full-time student who achieved a GPA of 2.8 or more in their previous semesters of full-time studies at Simon Fraser University. Preference, when possible, will be given to students who have returned to full-time studies subsequent to a substantial interruption of their academic career after secondary school. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Director, School for Contemporary Arts.

Richard Morgan Memorial Book Prize
Program code: UEAO-038
Value: $200
Awarded: Summer
Terms of reference: To an undergraduate student who submits a superior term report or essay on any topic concerning Canadian Native history. Special consideration will be given for originality in analysis and treatment of the area. Essays are to be submitted to the history department by April 15, and must have been written in one of the three previous semesters. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Department of History Awards Committee.

Ingrid Nystrom Archaeology Award
Program code: UEAO-180
Value: $1500
Awarded: Spring
Terms of reference: To an undergraduate student majoring in Archaeology to further studies in archaeology or physical anthropology. Please consult the Archaeology Department for further details and application procedures by November 1st.

Margaret Ormsby History Prize
Program code: UEAO-521
Value: $275
Awarded: Summer
Terms of reference: For the best essay written by an undergraduate upper-level student enrolled in a Canadian history course at Simon Fraser. Special consideration will be given for originality in analysis and treatment of the subject. Essays are to be submitted to the history department by April 15th, and must have been written in one of the three previous semesters. Margaret Ormsby, the doyen of historians of British Columbia, wrote the standard work on the history of the province, served for ten years (1965-75) as the head of the history department at the University of British Columbia and as president of the Canadian Historical Association in 1965-66, and was awarded an honorary doctorate by Simon Fraser University in 1971. The prize will be managed by the history department and will be awarded on the nomination of the Ormsby prize committee to the department. The history department will undertake to publicize and adjudicate the essay competition. The prize will be granted by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Chair of the Department of History.

Helen Pitt Graduating Award in Visual Arts
Program code: UPAO-189
Value: $1000
Awarded: Summer
Terms of reference: The Helen Pitt Graduating Award in Visual Arts will be awarded in the summer semester to a graduating student with an approved major or extended minor in Visual Arts. The award will be given by the Senate Undergraduate Awards Adjudication Committee on the nomination of the School for the Contemporary Arts Visual Arts Committee.

Philippa Poisson Memorial Prize
Program code: UPAO-021
Value: $250
Awarded: Summer
Terms of reference: To a student enrolled in Psychology 490/499. The award will be based on the quality of research conducted for the Honours project. The recipient will be expected to give a talk on his/her research at the Psychology Department's annual convention. Both graduates and undergraduates are eligible. Awards will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Chair of the Psychology Department.

Rama Reddy Political Science Award
Program code: UEAO-527
Value: $400
Awarded: Summer
Terms of reference: To the top graduating student in Political Science. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Chair of Political Science Department.

Simon Fraser University Gold Medal and Prize In History
Program code: UPAO-026
Awarded: Summer
Terms of reference: The Department of History wishes to recognize and encourage academic excellence with the award of a medal to the best history student in each graduating year. The award will be based on the best grade point average for upper level work. The prize will be granted by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Chair of the Department of History.

Robert L. Stanfield Book Prize
Program code: UEAO-028
Value: $50
Awarded: Summer
Terms of reference: To outstanding graduating students in Political Science. Awards will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Chair of the Political Science Department.

F.W. Sullivan Visual Arts Award
Program code: UEAO-029
Value: $100
Awarded: Summer
Terms of reference: To a student majoring in the Centre for the Arts Visual Arts Program. The award will be based on a student's contribution to the visual arts and the financial need associated with the public exhibition of his or her work. Nominations will be forwarded from the Centre for the Arts to the Senate Undergraduate Awards Adjudication Committee.

Prize of the Ambassador of Switzerland in Canada
Program code: UPAO-022
Value: $500
Awarded: Summer
Terms of reference: To students in their final year with the highest grades in German and French languages on recommendation by the Department (for German) and the Department of French (for French).

Winnie Topping Memorial Prize
Program code: UEAO-032
Value: $400
Awarded: Summer
Terms of reference: To a female student in honors Anthropology or Sociology who shows the greatest promise of becoming both a scholar and humanitarian. Applicants must submit a letter of nomination from a faculty member of the Department of Sociology and Anthropology.

Volunteers of the Burnaby Art Gallery Award in Visual Arts
Program code: UEAO-046
Value: $750
Awarded: Summer
Terms of reference: To the most promising student in third year in the Visual Arts major program. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the School for the Contemporary Arts Departmental Awards Committee.

Brian Williamson Memorial Award in Archaeology
Program code: UEAO-515
Value: $1000
Awarded: Summer
Terms of reference: To a student who has declared a major in Archaeology, is registered in a minimum of 9 credit hours (not necessarily in Archaeology) when application is made and intends to use the Award to help defray travel costs to participate in field research in Archaeology or Physical Anthropology. The Award will be based on the Award, academic achievements, and relevance of travel to the applicant's academic career. Applications should be sent in writing to the Chair, Department of Archaeology. The application should include: evidence that the student is an Archaeology major in good academic standing, copy of most recent transcript, a statement describing how the Award will be used and any other relevant information that will aid the Committees in their decision. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the

Simon Fraser University 2005 - 2006
Department of Archaeology Undergraduate Awards Committee.

Zoe Award in Painting or Sculpture
Program code: UPAO-192
Value: $500
Awarded: Summer
Terms of reference: An annual award of $500 will be made annually to a SFU student from the School for the Contemporary Arts. The award will go to an undergraduate student in their final year of study for the production of work that uses contemporary painting or sculpture in an innovative and challenging way. Student recipients will be invited to meet Robert Wilson at a luncheon hosted by University Advancement. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Director, School for the Contemporary Arts.

Awards for Business Administration Students
Peter R.B. Armstrong/Rocky Mountaineer Award for Entrepreneurship
Program code: UEOA-035
Value: $400
Awarded: Summer
Terms of reference: To an outstanding graduating student in Finance who has also made an important voluntary contribution to the University community or who has otherwise demonstrated leadership and management capability. The award is supported by The Diamond Fund in Business. A departmental nomination is required.

Business Administration Students Endowment Fund Prizes
Program code: UEOA-006
Value: $100
Awarded: Summer
Terms of reference: To the two finalists in the Dean’s Medal competition. Students will be chosen by the Dean of Business Administration.

Cohen Fund in Business – J. Segal Prize
Program code: UEOA-036
Value: $500
Awarded: Summer
Terms of reference: To the top undergraduate graduating Business Administration student in Marketing. This prize is supported by the Cohen Fund in Business. Departmental nomination is required.

Dean’s Student Service Award
Program code: UUAO-200
Awarded: Spring
Terms of reference: In 1995, the Dean of the Faculty of Business Administration established the Dean’s Student Service Award. The purpose of the award is to recognize outstanding service in the university community by an undergraduate student in the Faculty of Administration. The Dean’s Student Service Award will be awarded annually in the spring semester to recognize service in the preceding calendar year. The award, an engraved plaque and a gift, will be granted to a student, approved in a Business program, who has been nominated by the executive of a Faculty of Business Administration student club as their most valuable member. The student should have a minimum CGPA of 3.0 and must have been active in one of the student clubs in two of the three semesters in the preceding year. The award will be made by the Senate Undergraduate Award Adjudication Committee on the nomination of the Dean, Faculty of Business Administration.

Ellis Foster Chartered Accountants Accounting Award
Program code: UPAO-197
Value: $2000
Awarded: Fall
Terms of reference: The Ellis Foster Chartered Accountants Award in Accounting is valued at a minimum of $2000 annually for a 3rd or 4th year student in Business Administration with an approved Accounting concentration who is in good academic standing. The award will be made on the basis of involvement in volunteer and leadership activities. Applicants must supply documentation to demonstrate their involvements.

Simon Fraser University Co-operative Education Merit Award
Program code: UPAO-198
Value: $500
Awarded: Fall
Terms of reference: The award will be to a full-time undergraduate student who has demonstrated outstanding performance on a Co-Operative Education work placement focusing on business projects in any of the last three semesters. The award will be given upon the successful completion and return from the work placement. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Director, Co-Operative Education.

SFU Accounting Student Association Award
Program code: UPAO-181
Value: $300
Awarded: Spring
Terms of reference: To a third or fourth year student in the Faculty of Business Administration with a concentration in accounting. The award is based on academic performance and extra-curricular involvement. The successful applicant should have a minimum CGPA of 3.0. Extra-curricular interests can include active memberships in clubs, volunteer experiences, sports activities and community involvement. Candidates should demonstrate their involvement in these activities by providing their resume and cover letter specific to these interests.

Ken Spencer SFU Business/Engineering Venture Plan Competition
Program code: UPAO-191
Value: $100
Awarded: Fall
Terms of reference: The Ken Spencer SFU Business/Engineering Venture Plan is organized as part of undergraduate courses in offered in both the Faculty of Business Administration (BUS 477), and the Faculty of Applied Sciences (ENSC 201). To ensure that the venture plan includes technical and business aspects, teams must consist of at least one undergraduate student from each of the Applied Sciences (Engineering) and Business Administration faculties. A Management of Technology MBA student with an engineering degree will be selected to assist the course instructors by providing mentorship to the competitors. This mentor will provide technical expertise and guide students as they hone venture plans and polish presentation skills. As part of the courses BUS 477 and ENSC 201, teams of students for both courses (with a minimum of one Business student and one Engineering student per team) will prepare a business plan to be graded jointly by the two course instructors. Typically, the business plan will comprise 35% of the course grade.

At the end of the semester in which the courses are offered, the two course instructors will identify the top six business plans to be entered into the jury-adjudicated Ken Spencer Venture Plan Competition. Written and oral presentations will be made to the jury who will rank their recommended 1st, 2nd and 3rd place teams. Once the Venture Plan Competition Jury has determined their recommendations, the Chair of the Venture Plan Competition Jury will present and discuss the selected winners with the Deans of Applied Sciences and Business Administration who will forward their nominations to the Senate Undergraduate Awards Adjudication Committee. Of the finalists, three teams will receive prizes — a First Prize of $3000, a Second Prize of $1500 and a Third Prize of $500. Prize values may change in succeeding years. Winners will be announced at an annual function attended by faculty, students and competition sponsors.

Awards for Education Students
Jean G.K. Bailey Memorial Award
Program code: UEAO-004
Awarded: Summer
Terms of reference: To a student who entered the Professional Development Program in September, and a student who entered in January. The awards will be three year membership in the National Society for the study of Education. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Dean, Faculty of Education.

Dr. Maxwell A. Cameron Memorial Prizes
Program code: UPAO-007
Value: $250
Awarded: Summer
Terms of reference: To a student who entered the Faculty of Education, one to a student in the elementary or middle school stream, and another to a student in the secondary stream. The prizes will be given in the summer semester to the outstanding student in each stream based on his/her academic accomplishments and overall performance during the completion of the Professional Development Program practica. The prizes commemorate the distinguished life and work of Dr. Maxwell A. Cameron (1907-1951), first director of the School of Education at the University of British Columbia and author of the Cameron Report on Education. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Dean, Faculty of Education.

Claude E. Lewis Award
Program code: UEOA-015
Awarded: Summer
Terms of reference: Granted to students in the Faculty of Education, one to a student in the elementary or middle school stream, and another to a student in the secondary stream. The prizes will be given in the summer semester to the outstanding student in each stream based on his/her academic accomplishments and overall performance during the completion of the Professional Development Program practica. The prizes commemorate the distinguished life and work of Dr. Maxwell A. Cameron (1907-1951), first director of the School of Education at the University of British Columbia and author of the Cameron Report on Education. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Dean, Faculty of Education.

Phi Delta Kappa Scholarship in Education
Program code: UPSEO-276
Value: $500
Awarded: Summer
Terms of reference: The award is given to undergraduate students in the Professional Development Program who have demonstrated overall excellence in their program of study. The scholarships will be awarded to students on the basis of overall excellence and contributions to the faculty, to the university and/or to the community. Candidates should include with their application a letter of recommendation in support of their service contributions. The award will be made by the Senate
Awards for Science Students

**Archaeometry Prize**
Program code: UEAO-003
Value: $275
Awarded: Summer
Terms of reference: To an undergraduate student who has demonstrated excellence in overall performance during completion of the Department of Physical Science to Archaeology. This prize will be awarded by the Senate Undergraduate Awards Adjudication Committee on the nomination of the academic merit to a student in the Faculty of Science.

**Biological Sciences Merit Award**
Program code: UEESO-205
Value: $2000
Awarded: Fall
Terms of reference: To a Biology major who has the highest academic record at the conclusion of the sixth semester of study or the equivalent thereof. A student may receive this award only once during their undergraduate career. Awarded upon nomination of the Department of Biological Sciences.

**Chemistry Book Award – Dr. E.J. Wells**
Program code: UEAO-008
Value: $75
Awarded: Summer
Terms of reference: To graduating students in Chemistry. Chemical Physics or Biochemistry for outstanding graduation grade point average. The award is made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the academic merit to a student in the Faculty of Science.

**Department of Mathematics Awards**
Program code: UEAO-017
Value: $50
Awarded: Spring
Terms of reference: Awards will be given to full-time students in the Department of Mathematics on the nomination of the Chair, Department of Mathematics. The fund provides support to further mathematics undergraduate education at Simon Fraser University and seeks to encourage secondary school students to enter into the study of mathematics.

**Dean of Science Award**
Program code: UEAO-009
Value: $250
Awarded: Fall
Terms of reference: Awarded on the basis of academic merit to a student in the Faculty of Science, who has completed a minimum of 90 semester hours in a major or honors degree program. The prize will be based upon the student's cumulative GPA in the previous two semesters of full-time study at Simon Fraser University (at least 12 semester hours credit in each semester) and the nominee will be nominated by the Faculty of Science undergraduate curriculum committee.

**Rudi Haering Award in Physics**
Program code: UEAO-013
Value: $350
Awarded: Summer
Terms of reference: On the nomination of the Physics Department to an outstanding Physics or Chemical Physics undergraduate who has completed six semesters of study. A book prize may be included as part of the award. Established by members of the Simon Fraser University Physics Department in honor and recognition of Dr. R.R. Haering, founding Department Head and Professor, 1964-72.

**Management and Systems Science Prize**
Program code: UEAO-040
Value: $350
Awarded: Summer
Terms of reference: The Management and Systems Science Graduation Prize is an annual award valued at approximately 20% of the available income from the Management and Systems Science Endowment. The award will be given to an outstanding graduating student who has exhibited leadership through entrepreneurial skills, contribution to the program or contribution to the university in general. To be eligible, a student must be completing his/her degree in the preceding Fall semester, the Spring semester of the award or the Summer semester following the award. Students may be nominated for the award by faculty members in any of the constituent departments of the MSSC program, the executive of MSSC Student Society or Co-op coordinators placing MSSC students. The Management and Systems Science Prize provides an annual award valued at approximately 80% of the available income from the Management and Systems Science Endowment. Two prizes are available to students with an approved MSSC major or honors program and a minimum CGPA of 3.00. One prize will be given to a student in their third year of the program and one prize to a student in the fourth year or higher. Preference should be given to a student who has not previously received the award. The awards will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Management and Systems Science Prize Steering Committee.

**Putnam Awards**
Program code: UPAO-024
Value: $100
Awarded: Spring
Terms of reference: Awarded by the Department of Mathematics and Statistics to Simon Fraser University students listed as top participants in the William Lowell Putnam Mathematical Competition. The winners will be determined according to the official list provided by the organizers of this competition. The ranking and the financial value of the award are as follows.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>P (Putnam fellow)</td>
<td>$350</td>
</tr>
</tbody>
</table>

**Department of Statistics and Actuarial Science Awards**
Program code: UEAO-018
Value: $50
Awarded: Spring
Terms of reference: Awards will be given to full-time students in the Department of Statistics and Actuarial Science for academic merit to a student in the Faculty of Science.

**Webber Chemistry Co-op Book Prize**
Program code: UPAO-031
Value: $50
Awarded: Summer
Terms of reference: To co-operative education chemistry (biochemistry) students who submit outstanding co-op work reports during the year. The awards will be made based on nominations submitted to the senate committee on scholarships, awards and bursaries by the chemistry co-op co-ordinator.

**Awards for Student Athletes**

Regulations for Athletic Awards

- Students must have achieved a minimum cumulative grade point average of 2.0 in the previous semester and must not be on academic probation, or, in the case of transfer student, must possess an equivalent high school or college standing.
- Undergraduate students must be eligible to compete and be registered in a minimum of nine semester hours of normal graded courses in the semester of eligibility. Challenge, audit, and credit-free courses are not considered. Students who register in fewer than nine semester hours or subsequently drop below nine hours may have their awards cancelled.
- Graduate students must be eligible to compete and be registered for residence credit in an approved full-time program. Students who do not register or subsequently change to on-leave status may have their awards cancelled.
- Unless otherwise noted, candidates must be nominated by the director, recreation services and athletics.
- Only one pre-existing semester will be allowed between the semester in which the registered student made their contribution and the semester in which the award is adjudicated.
- Athletic awards are tenable only at the University for the semester indicated on the notice and may not be deferred.
- Funds will be credited to the successful student's account with the University. Outstanding debts to the University will be deducted from the award funds before a cheque for the credit balance is issued.

**Bob Ackles Sports Administration Award**
Program code: UEAA-001
Value: $500
Awarded: Fall Spring Summer
Terms of reference: To a student in good academic standing in any faculty who has demonstrated high standards of leadership in the management or administration of SFU Athletic, Recreation or Intramural programs.
Yolande D. Anderson Women's Basketball Award
Program code: UEAA-060
Value: $800
Awarded: Fall Spring Summer
Terms of reference: To a full-time student in good standing who is on the Simon Fraser women's basketball team and who demonstrates athletic ability in basketball.

G.F. Kym Anthony Wrestling Award
Program code: UEAA-087
Value: $700
Awarded: Fall Spring Summer
Terms of reference: To a student on the SFU Wrestling team who has demonstrated athletic ability.

Aon Reed Stenhouse Inc. Athletic Award
Program code: UEAA-034
Value: $350
Awarded: Fall Spring Summer
Terms of reference: To a student on the SFU Wrestling team who has demonstrated athletic ability.

C.G. "Chuck" Arnold Golf Award
Program code: UEAA-002
Value: $500
Awarded: Fall Spring Summer
Terms of reference: To a student who is registered in a program of study in any faculty at Simon Fraser University demonstrating outstanding ability in golf, as well as proven academic achievement. This $3,000 self-perpetuating athletic award has been established by the Bank of Nova Scotia.

BC Athlete Assistance Program
Program code: UXAA-001
Value: $250
Awarded: Fall Spring Summer
Terms of reference: To a student registered in a program of study in any faculty at Simon Fraser University demonstrating outstanding ability in sport, as well as proven academic achievement. This $3,000 self-perpetuating athletic award has been established by the Bank of Nova Scotia.

BCTV Broadcasting System Ltd Athletic Award
Program code: UEAA-035
Value: $100
Awarded: Fall Spring Summer
Terms of reference: To a student who is registered in a program of study in any faculty at Simon Fraser University demonstrating outstanding ability in sport, as well as proven academic achievement.

Terms of reference: One or more awards will be given to a full-time student(s) who is in good academic standing in any faculty and is a member of the Varsity Men's Wrestling team. High standards of leadership, athletic performance and academic accomplishment may be considered in selection of the recipient. The recipient should be a member in good standing with the "British Columbia Amateur Wrestling Association". Preference, when possible, will be given to at least one student who comes from the province of Ontario. Confirmation of this latter condition may be in writing by the student and/or SFU Head Wrestling Coach.

Best Facilities Services Ltd Athletic Award
Program code: UEAA-017
Value: $250
Awarded: Fall Spring Summer
Terms of reference: An athlete who meets the academic requirements and exhibits outstanding ability.

John Buchanan Men's Soccer Award
Program code: ueaa-106
Value: $1000
Awarded: Fall Spring Summer
Terms of reference: To an undergraduate student in good academic standing who is a member of the Men's Soccer Team.

Canadian Airlines International Ltd Award
Program code: UEAA-039
Value: $350
Awarded: Fall Spring Summer
Terms of reference: To an undergraduate student in good academic standing who has demonstrated high standards of leadership and performance as a team member of the Varsity Golf Team. The award will be made by the Senate Undergraduate Awards Adjudication Committee upon the recommendation of the Director, Recreational Services and Athletics.

Canadian Universities Athletic Association Award
Program code: UEAA-005
Value: $75
Awarded: Fall Spring Summer
Terms of reference: To a student who is registered in a program of study in any faculty at Simon Fraser University and who exhibits outstanding ability in the sport of soccer, as well as proven academic achievement. The self-perpetuating athletic award has been established by Canadian National Railways.

Carrera Alumni Award in Wrestling
Program code: UEAA-019
Value: $1000
Awarded: Fall Spring Summer
Terms of reference: To a student active in wrestling at Simon Fraser who meets the athletic and academic requirements. Preference will be given to a Centralia Senior Secondary School graduate.

Jim Ciccone Men's Basketball Award
Program code: UEAA-084
Value: $1000
Awarded: Fall Spring Summer
Terms of reference: To a full or part-time student in good academic standing who is attending Simon Fraser University and is on the Basketball team. Preference, when possible, will be given to SFU students from Northern BC, or to students from BC. The award is
based on athletic merit in the Men's Basketball Program.

Clansmen Athletic Alumni Society Award
Program code: UPA-013
Value: $500
Awarded: Fall
Terms of reference: Provides for annual award(s) to entering or continuing students who are involved in the intercollegiate football program and demonstrate outstanding ability in the sport of football.

Coca-Cola Student Athlete Awards
Program code: UPA-018
Value: $500
Awarded: Fall Spring Summer
Terms of reference: To students who are members of a varsity athletic team at Simon Fraser University. Awards may be granted in any semester. The recipients must be in good academic standing.

Moira Colbourne Field Hockey Award
Program code: UEAA-018
Value: $800
Awarded: Fall Spring Summer
Terms of reference: The Awards will be given to students who have demonstrated high standards of leadership and performance as team members of the women's field hockey team. Academic accomplishment may be considered in selection of the recipient.

Credit Union Central of British Columbia Athletic Award
Program code: UEAA-016
Value: $200
Awarded: Fall Spring Summer
Terms of reference: Annual award of approximately $300 to a student who is registered in a program of study in any faculty at SFU and who exhibits outstanding ability as well as proven academic achievement.

W. Lorne Davies Senior Graduation Award
Program code: UEAA-079
Value: $1000
Awarded: Spring
Terms of reference: To a senior SFU varsity athlete with at least 90 semester hours of which 48 semester hours are at Simon Fraser University. The recipient will have completed their senior year of athletic eligibility as identified by the NAIA. The Award will be announced at the March Awards banquet and will be granted to a registered student in the summer, fall or spring semester to offset the tuition costs of the graduating year. The award must be granted within one year of notification. The W. Lorne Davies Senior Graduation Award's purpose is to fulfill the philosophy of W. Lorne Davies that all varsity athletes should achieve graduation.

W. Lorne Davies Athletic Excellence Award
Program code: UEAA-080
Value: $2000
Awarded: Spring
Terms of reference: The outstanding male and the outstanding female varsity athlete of the year. Two awards may be given in either category if there are two equal candidates. Recipients must be full-time students. The awards will be granted at the Simon Fraser University Athletics Banquet.

Larry K Davis/Bravo International Services Corp. PNB Award in Golf
Program code: UEAA-020
Value: $250
Awarded: Fall Spring Summer
Terms of reference: To a full-time student in good standing who is on the golf team at Simon Fraser University.

Les and Greg Edgelow Wrestling Award
Program code: UEAA-058
Value: $500
Awarded: Fall Spring Summer
Terms of reference: To a first year student (preference given to a student from the BC interior) in good standing who is on the University wrestling team and who is registered full-time. The award is also based on athletic merit in wrestling.

Field Hockey Endowment Fund Awards
Program code: UEAA-012
Value: $250
Awarded: Fall Spring Summer
Terms of reference: The award will be given to students in good academic standing in any faculty who have demonstrated high standards of leadership and performance as a member of the Field Hockey team.

Jim Forsythe Olympian Award
Program code: UEAA-069
Value: $1000
Awarded: Fall Spring
Terms of reference: To a student athlete in any sport who has aspirations to compete in the Olympics. The award will be given to a student in good standing who has shown leadership qualities. The student must submit an application in writing and present their training procedures to the Jim Forsythe Olympian committee by August 30th. This award may be held in conjunction with other awards made by Simon Fraser University or other agencies where permitted by those agencies.

Kelly Franks Memorial Swimming Award
Program code: UEAA-090
Value: $500
Awarded: Fall Spring Summer
Terms of reference: To students or students on the SFU Swimming Team who are in good academic standing. Preference, when possible, will be given to at least one student who was or is active in the British Columbia Swimming Association (BCSSA), either as a participating athlete, coach or volunteer. Confirmation of this latter condition may be in writing by the student and/or SFU head swim coach. The recipient may be granted the Kelly Franks Memorial Swimming Award more than once provided criteria noted above are met.

Rick Hansen Athletic Award
Program code: UUAO-103
Value: $1400
Awarded: Fall Spring
Terms of reference: To a physically challenged student athlete who meets the general award requirements.

Dr. T. Peter Harmon Wrestling Award
Program code: UEAA-048
Value: $500
Awarded: Fall Spring Summer
Terms of reference: The award will be given to student in good academic standing in any faculty who has demonstrated high standards of leadership and performance as a team member of the varsity wrestling team. Preference will be given to students with high academic standing.

Robert F. Harrison & Partners Athletic Award
Program code: UEAA-051
Value: $150
Awarded: Fall Spring Summer
Terms of reference: The interest from the endowment will be given each year to an athlete upon the recommendation of the Director of Athletics.

Wayne Holm Football Scholarship
Program code: UEAA-023
Value: $750
Awarded: Fall Spring Summer
Terms of reference: To students exhibiting exceptional ability in football and meeting the academic requirements.

Daniel Igali Award in Wrestling
Program code: UEAA-111
Value: $500
Awarded: Fall Spring Summer
Terms of reference: To a student in good academic standing in any faculty who has demonstrated high standards of leadership and performance as a member of the SFU Wrestling Team. Academic performance may be considered in the selection of the recipient. The award will be made by the Senate Undergraduate Awards Adjudication Committee on Scholarships, Awards and Bursaries on the nomination of the Director, Recreational Services and Athletics.

Indo-Canadian Wrestling Award
Program code: UEAA-062
Value: $500
Awarded: Fall Spring Summer
Terms of reference: To a full or part-time student in good standing. The award is based on athletic merit in wrestling.

Intramural Involvement Award
Program code: UEAA-086
Value: $50
Awarded: Fall Spring Summer
Terms of reference: To a full or part-time student in good standing who is attending Simon Fraser University and who volunteers within the Intramural Program.

Mike Jones Wrestling Award
Program code: UEAA-053
Value: $1000
Awarded: Fall Spring Summer
Terms of reference: To a part-time or full-time student in good academic standing, based on athletic merit in the wrestling program.

Rick Jones Memorial Award
Program code: UEAA-007
Value: $500
Awarded: Fall Spring Summer
Terms of reference: One or more awards, are available to full-time students in good academic standing. These awards are based on outstanding athletic merit in football. Preference will be given to students from Vancouver Island.

Keg Restaurants Ltd Athletic Award
Program code: UEAA-026
Value: $200
Awarded: Fall Spring Summer
Terms of reference: To an athlete who meets the academic requirements and demonstrates outstanding ability.

Nick Kiniski Wrestling Award
Program code: UEAA-059
Value: $500
Awarded: Fall Spring Summer
Terms of reference: To a full or part-time student in good standing on the University wrestling team.

Jon-Lee Kootnekoff Basketball Award
Program code: UEAA-029
Value: $900
Awarded: Fall Spring Summer
Terms of reference: To a first year student on the Simon Fraser University men's basketball team. The award will be disbursed over two semesters, valued at approximately $450 per semester.

Labatt Breweries Award in Soccer
Program code: UPA-003
Value: $600
Awarded: Spring
Terms of reference: Granted to one or more students exhibiting outstanding athletic merit in soccer and maintaining a satisfactory academic standing.

Labatt Breweries of BC Limited Football Awards
Program code: UEAA-008
Value: $500
Awarded: Fall Spring Summer
Terms of reference: To a student in good academic standing in any faculty who has demonstrated high standards of leadership and performance as a member of the SFU Wrestling Team. Academic performance may be considered in the selection of the recipient. The award will be made by the Senate Undergraduate Awards Adjudication Committee on Scholarships, Awards and Bursaries on the nomination of the Director, Recreational Services and Athletics.
Terms of reference: The award will be given to students in good academic standing in any faculty who have demonstrated high standards of leadership and performance as a member of the Men’s Varsity soccer team. Academic accomplishment may be considered in selection of the recipient. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Director, Recreational Services and Athletics.

Paul Nemeth Wrestling Award
Program code: UEAA-030
Value: $1000
Awarded: Fall Spring Summer
Terms of reference: To a student in good academic standing in any faculty who has demonstrated high standards of leadership and performance as a team member of the varsity wrestling team. Preference will be given to students with high academic standing.

David and Brenton Nichols Award in Athletics
Program code: UEAA-092
Value: $500
Awarded: Fall Spring Summer
Terms of reference: To a student in good academic standing in the Faculty of Business Administration or School of Communications. The award will be granted to 3rd and 4th year students participating in a competitive sport at the provincial level or higher, or if no such student is available, to a student who is a member of a SFU Varsity team. Academic performance may be considered in the selection of recipient.

Jane Norman Memorial Soccer Award
Program ID: UEAA-110
Value: $750
Awarded: Fall Spring Summer
The award(s) will be granted to students in good academic standing in any faculty who have demonstrated high standards of leadership and performance as member of the SFU Women’s Soccer Team. Academic accomplishment may be considered in selection of the recipient. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nomination of the Director, Recreation Services and Athletics.

Northern British Columbia Softball Award in Women’s Softball
Program code: UEAA-085
Value: $500
Awarded: Spring
Terms of reference: To a SFU student who is a member of the SFU Women’s Intercolligate Softball Team. The recipient must also have been a member of one of the sponsoring associations for at least two years, and as well, be in good standing with Softball BC. The award may be renewed as long as the recipient is a member of the SFU Intercolligate Softball Team. Preference will be given to applicants from Northern BC, but the award may be granted to other qualified applicants.

Lui Passaglia Football Award
Program code: UEAA-056
Value: $500
Awarded: Fall Spring Summer
Terms of reference: To a full or part time student in good standing who is on the football team at Simon Fraser University. The award is based on athletic merit in football.

D.B. Perks & Associates Ltd. Award in Swimming and Diving
Program code: UEAA-041
Value: $500
Awarded: Fall Spring Summer
Terms of reference: To a student in any faculty who is a member of the varsity SFU Swimming and Diving team, exhibiting exceptional ability in swimming and/or diving and in good academic standing.

Murray Pezim Award in Football
Program code: UEAA-050
Value: $600
Awarded: Fall Spring Summer
Terms of reference: To students in good academic standing in any faculty who have demonstrated high standards of leadership and performance as a member of the Varsity Football team. Academic accomplishment may be considered in selection of the recipient.

Rae/Suart Alumni Athletic Award in Men’s Basketball
Program code: UEAA-014
Value: $750
Awarded: Fall Spring Summer
Terms of reference: The award(s) will be given to a student on the men’s basketball team upon completion of their first year of academic studies at Simon Fraser University.

Royal Canadian Legion Branch #2
Program code: UEAA-054
Value: $50
Awarded: Fall Spring Summer
Terms of reference: An annual award is available for athletes who have achieved a personal best in their sport, or if no such student is available, to a student who is participating in a competitive sport at the provincial level or higher.

Royal City Travel Limited Athletic Award
Program code: UEAA-009
Value: $200
Awarded: Fall Spring Summer
Terms of reference: To a SFU student who is a member of the varsity Football team. Academic accomplishment may be considered in selection of the recipient. The award will be given to student-athletes who meet the academic requirements and exhibits athletic ability.

Scottiбанк Award in Soccer
Program code: UPAA-008
Value: $200
Awarded: Fall Spring Summer
Terms of reference: The award will be disbursed in two installments to an athlete on the soccer team at SFU.

Scottiбанк Student-Athlete Awards
Program code: UPAA-015
Value: $1000
Awarded: Fall Spring Summer
Terms of reference: A number of awards will be offered to both male and female student-athletes at SFU, up to one award per varsity team. The recipients must be full-time students in good academic standing who demonstrate outstanding ability in varsity athletics.

Scott Paper Alumni Endowment Award
Program code: UEAA-013
Value: $500
Awarded: Fall Spring Summer
Terms of reference: Outstanding athletic merit by a student competing for SFU in any sport, and will be awarded to full-time students with a minimum 2.5 cumulative GPA.

Servipetrol Wrestling Award
Program code: UPAA-017
Value: $1500
Awarded: Fall Spring Summer
Terms of reference: To a student who is on the SFU Wrestling team. The recipient must be enrolled in the appropriate number of credit hours for a
student-athlete, as defined by the university and must have achieved a grade point average of 2.5 or greater in the previous semester of study or out of high school.

Dr. Gordon Shrum Athletic Award
Program code: UEAA-037
Value: $800
Awarded: Fall Spring Summer
Terms of reference: To an athlete who meets the academic requirements and demonstrates outstanding athletic ability.

Simon Fraser University Alumni Soccer Award
Program code: UEAA-083
Value: $900
Awarded: Fall Spring
Terms of reference: To an undergraduate student involved in the University soccer program.

SFU Athletic Award
Program code: UEAA-044
Value: $500
Awarded: Fall Spring Summer
Terms of reference: The award will be given to undergraduate student athletes on a varsity team who hold a satisfactory academic standing.

Simon Fraser University Swimming Alumni Award
Program code: UEAA-024
Value: $1200
Awarded: Fall Spring Summer
Terms of reference: To students who exhibit exceptional ability in swimming and meet the academic requirements.

Simon Fraser University “The Challenge” Golf Award
Program code: UPAA-010
Value: $2000
Awarded: Fall Spring Summer
Terms of reference: Recipient must be a full-time student in good standing and a member of Simon Fraser University’s men’s varsity golf team. He must be a graduate of Canadian junior golf and maintain throughout his four years of eligibility a level of play comparable with that of the top six team members. If a recipient forfeits Year 2-4 portion of the award, the remaining portion may be awarded to another member of the golf team on the nomination of the head golf coach.

Simon Fraser University Women’s Soccer Endowment Award
Program code: UEAA-064
Value: $100
Awarded: Fall Spring Summer
Terms of reference: Based on outstanding athletic merit, to a student playing women’s soccer at the University. The award will be granted to a full-time student in satisfactory academic standing.

Softball Associations Presidents’ Award in Women’s Softball
Program code: UEAA-081
Value: $500
Awarded: Fall Spring Summer
Terms of reference: To full- or part-time student in good standing who is attending Simon Fraser University and who is a member of the SFU Women’s Intercollegiate Softball Team. The recipient must also have been a member of one of the sponsoring associations for at least two years and be in good standing with Softball B.C. and their sponsoring association. The Award may be renewed annually if the athlete remains a member of the SFU women’s intercollegiate softball team.

Sandra Spence Memorial Wrestling Award
Program code: UEAA-033
Value: $1500
Awarded: Fall Spring
Terms of reference: To students who are members of the Simon Fraser wrestling team and who meet the academic requirements.

Victor V. Spencer Award in Football
Program code: UEAA-046
Value: $500
Awarded: Fall Spring Summer
Terms of reference: The award will be given to students in good academic standing in any Faculty who have demonstrated high standards of leadership and performance as a member of the Varsity Football team. Academic accomplishment may be considered in selection of the recipient.

Bob Spray Rugby Awards
Program code: UEAA-025
Value: $500
Awarded: Spring
Terms of reference: Rugby players enrolled at Simon Fraser University. This award is offered in recognition of significant contributions to the Simon Fraser University rugby team, or in recognition of excellence in extraordinary amateur rugby activities. Students must have achieved a minimum grade point average of 2.00 in the previous semester during tenure of the award. Applications should be submitted to the Simon Fraser University rugby coach in the previous fall semester.

Stan Stewardson Award in Men’s Basketball
Program ID: UEAA-109
Value: $500
Awarded: Fall Spring Summer
Terms of reference: The award(s) will be granted to students in good academic standing in any faculty who have demonstrated high standards of leadership and performance as a member of the Men’s Basketball team. Academic accomplishment may be considered in selection of the recipient. The award will be made by the Senate Undergraduate Awards Adjudication Committee on the nominiation of the Director, Recreational Services and Athletics.

Student Athlete Support Award
Program code: UEAA-065
Value: $250
Awarded: Fall Spring Summer
Terms of reference: Awards for student athletes. Must have minimum CGPA of 2.00, must be full-time students, and must be eligible to compete in their sport.

Annis Stukus Award in Football
Program code: UEAA-040
Value: $1000
Awarded: Fall Spring
Terms of reference: To a student in good academic standing in any faculty who has demonstrated high standards of leadership and performance as a member of the varsity football team. Academic accomplishment may be considered in selection of the recipient.

Lynn K. Sully Athletic Award
Program code: UEAA-010
Value: $200
Awarded: Fall Spring Summer
Terms of reference: To athletes who demonstrate outstanding athletic ability and meet the academic requirements. This award is offered in recognition of significant contributions to the Simon Fraser University rugby team, or in recognition of excellence in extraordinary amateur rugby activities. Students must have achieved a minimum grade point average of 2.00 in the previous semester during tenure of the award. Applications should be submitted to the Simon Fraser University rugby coach in the previous fall semester.

Bob Spray Rugby Awards
Program code: UEAA-025
Value: $500
Awarded: Spring
Terms of reference: Rugby players enrolled at Simon Fraser University. This award is offered in recognition of significant contributions to the Simon Fraser University rugby team, or in recognition of excellence in extraordinary amateur rugby activities. Students must have achieved a minimum grade point average of 2.00 in the previous semester during tenure of the award. Applications should be submitted to the Simon Fraser University rugby coach in the previous fall semester.

Valley Royals Award in Track and Field
Program code: UEAA-039
Value: $2000
Awarded: Fall Spring Summer
Terms of reference: To an SFU student who exhibits outstanding athletic merit on the SFU Track and Field team and who maintains a satisfactory academic standing. $2,000 in total will be awarded annually in two installments. Preference will be given to students who are members of the Valley Royals Track and Field Club. If a suitable candidate from the Valley Royals Club is not found in a given year, the Award may be granted to a student on the SFU Track and Field team who is from the Fraser Valley region (Zone 3) that includes Maple Ridge, Langley, Abbotsford, Mission, Agassiz, Coquitlam, Port Coquitlam and Hope. If neither a Valley Royals Club member nor a student from Zone 3 is available, the award may be granted to a track and field team member from British Columbia or from Canada. The recipient may be granted the Valley Royals Award more than one time provided all criteria noted above are met.
University Administered Loans

Student Emergency Loan Fund

Regulations
The following regulations govern all loans for continuing students over which the University has jurisdiction.

- Short term emergency funds are available to students who urgently need money while awaiting other sources of funding.
- Emergency loans are interest free for a period of 60 days.
- Students must have a demonstrated financial need and source of repayment.
- Undergraduate students must be registered in a minimum of seven semester hours of normal graded courses in the semester of application. Challenge, audit, and credit free courses will not be considered.
- Graduate students must be registered for residence credit in an approved full-time program.
- SFU Emergency Loans are tenable only at Simon Fraser University and only for the semester indicated on the notice.

Externally Administered Programs

Externally Administered Entrance Scholarships

The following entrance scholarships are not administered by Simon Fraser University. The information is intended for general reference only; it may be subject to change. The student is responsible for enquiring and applying through the appropriate agency as indicated in the description.

External Entrance Scholarships for All Students

AGF Financial Life Skills Scholarship Program
Deadline: May 28
Terms of reference: Candidates must be graduating from their last year of high school (and/or CEGEP in Quebec) with a 75% (or equivalent) average in their final and next-to-final year courses. They must have demonstrated some involvement in any of the following areas: community leadership, extra-curricular activities, special projects, volunteer service, outside interests or hobbies, career and educational objectives. Candidates must be Canadian citizen or permanent residents.
Contact: Contact: Canadian Awards Program, Association of Universities and Colleges of Canada (AUCC), 350 Albert St., Suite 600, Ottawa ON, K1R 1B1, Tel: (613) 563-1236, Fax: (613) 563-9745.
Email: awards@aucc.ca
Web: www.aucc.ca

Irving K Barber Scholarship
Deadline: TBA
Terms of reference: The program will provide scholarships to BC undergraduate students who begin their studies at a community college and then transfer to a BC university. Details of the program, including application guidelines and deadlines, will be announced on www.bcbsap.bc.ca.
Contact: Visit Student Services Branch web site for details www.bcbsap.bc.ca
Web: www.bcbsap.bc.ca

Central Okanagan Teachers Association – A.S. Matheson Education Scholarship
Deadline: September 5
Terms of reference: A scholarship of $1,000 will be awarded annually to a son or daughter of a current or retired COTA member who is presently enrolled at a post-secondary institute and is proceeding into the first year of a teacher education program. The application must be accompanied with a letter of acceptance to the Faculty of Education and teacher education program. The COTA Scholarship Committee will consider student ability and potential and accompanying letters or recommendation from a faculty member of an enrolled course in first year. Contact: Central Okanagan Teachers’ Association, 210-1751 Harvey Avenue, Kelowna, BC, V1Y 6G4, Tel: (250) 860-3886, Fax: (250) 862-3024.

Terry Fox Humanitarian Award
Deadline: February 1
Terms of reference: The Terry Fox Humanitarian Award Program is intended to encourage Canadian
youth to seek the high ideals represented by Terry Fox by the granting of commemorative awards for the pursuit of higher education. The program provides scholarships to students entering or attending post secondary educational institutions within Canada. The successful applicants are recognized for dedication to community service, humanitarianism, perseverance and courage in the face of obstacles, and pursuit of excellence in fitness and academics. Award recipients must be Canadian citizens or have landed immigrant status. The value of the award is $6,000 annually, for a maximum of four years or until a first degree is obtained. For those who attend institutions that do not charge tuition fees, the award is $3,500 per year. Successful Terry Fox scholars are expected to participate in program activities such as volunteer service, yearly meeting and annual reports.

Contact: Terry Fox Humanitarian Award Program, Simon Fraser University, 8888 University Drive, Burnaby BC, V5A 1S6, Tel: (604) 291-3057, Fax: (604) 291-3311.
Email: terryfox@sfu.ca
Web: www.terryfox.org

Dr. L. M. Greene Scholarship
Deadline: May
Terms of Reference: A scholarship in the amount of $500 and is awarded annually to a former Prince Rupert Senior Secondary School student who is interested in pursuing a vocation in any of the health care fields. Applications will normally be considered in May or June.
Contact: Prince Rupert Regional Hospital, 1305 Summit Avenue, Prince Rupert, BC, V8J 2A6.

IBM Canada Limited Pacific Development Centre Scholarship – Science Council of British Columbia
Deadline: March 1
Terms of reference: The IBM Canada Limited Pacific Development Centre Scholarship program administered by the Science Council of BC, offers 50 $10,000 information technology scholarships over five years, to students attending at a BC post-secondary institution. The intent of the scholarship is to encourage academic excellence and the pursuit of higher education in the information technology sector among youth in the province of British Columbia. This includes, but not limited to, computing science, computer engineering, management information systems, electrical engineering, physics or first year programs leading to these disciplines at a BC post-secondary institution. Applicants must be a BC high school student who is completing grade 12 and entering the first year of a full-time post-secondary program at a qualifying BC institution in the year of application. Applications must be made by nomination by the students’ secondary school. To maintain eligibility, recipients must maintain a minimum average of 75% or equivalent.
Contact: Science Council of British Columbia, Suite 400, 4710 Kingsway, Burnaby BC, V5H 4M2, Tel: (604) 438-2752, Fax: (604) 438-6564.
Email: INFO@scbc.org
Web: www.scbc.org

William L. Hurford Memorial Scholarship (ILWU)
Deadline: June 30
Terms of reference: A scholarship of $1,200 is open to sons and daughters of members, in good standing of the International Longshore and Warehouse Union. It is awarded to a candidate who is proceeding in the fall to a full first year program of studies at the University of British Columbia, University of Victoria, Simon Fraser University, the BC Institute of Technology, or a regional college in British Columbia. Students may not hold more than one scholarship offered by the International Longshore and Warehouse Union at any one time.
Contact: Award # 04786; Apply at University of British Columbia, Student Financial Assistance and Awards, Enrolment Services, 1036-1874 East Mall, Vancouver BC, V6T 1Z1, Tel: (604) 822-5111, Fax: (604) 822-6929.

Carol Anne Letheren Leadership and Sport Scholarship
Deadline: January 31
Terms of reference: The scholarship will support women who demonstrate the potential to reach Carol Anne Letheren’s vision and capabilities and who aspire to the same core Olympic values of excellence, leadership, respect, human development, fun, fairness and peace. Candidates must: be a female student presently enrolled at a Canadian high school in their graduate year, be applying to a Canadian University, in a General Arts program with an emphasis in business, sport management, or marketing related fields, demonstrate qualities and personal values that personify the Olympic values of excellence, leadership, respect, human development, fun, fairness, and peace, and maintain outstanding academic performance, minimum grade average of 85% or above, be an accomplished athlete in high school, community or provincial level competitive sports, be a Canadian citizen or permanent resident.
Contact: Canadian Olympic Committee, 21 St. Clair Avenue East, Suite 900, Toronto ON, M4T 1L9, Tel: (416) 324-4125, Fax: (416) 967-4902.
Email: lmzar-nil@olympic.ca
Web: www.olympic.ca

Sergio Lovison Scholarship
Deadline: August 15
Terms of reference: Two scholarships of $750 each have been set up in Sergio’s name, to commemorate his indomitable spirit, which has touched so many lives. Selection criteria:
• Applicants must be of Roman Catholic residents of the Lower Mainland,
• Applicants must be grade 12 students who expect to graduate with a 3.0 (B) grade point average or higher,
• Applicants are expected, upon, high school graduation, to attend a university or community college or technical school, and pursue studies leading to a university degree or college diploma,
• Applicants are asked to submit a typewritten letter of no more than 400 words, double-spaced, explaining why he/she is qualified to be awarded the scholarship.
• Applicants are asked to submit no fewer than three letters of reference, one of which must be letters of support from the applicant’s parish priest and one of which must be written by a current teacher of the applicant, supporting the scholarship application and explaining why he/she is an appropriate candidate for the scholarship.
Contact: Sergio Lovison Foundation, c/o 5576 Armour Street, Vancouver BC, V5P 1R6.

Piping Industry Journeyman Training and Industry Promotion Fund Scholarship
Deadline: June 30
Terms of reference: Two scholarships of $500 each are offered to students entering the first year at any British Columbia university or college, and proceeding to a full program of studies leading to a university degree or college diploma in any field. To be eligible, a candidate must be (a) the son, daughter or legal dependent of a member of the United Association of Plumbers and Steam-Fitters, Local 170, who is employed by a firm which is a contributor to the fund, or (b) the son, daughter or legal dependent of an employee of a firm who is a contributor to the fund.
Contact: Award #04731; Apply at University of British Columbia, Student Financial Assistance and Awards, Enrolment Services, 1036-1874 East Mall, Vancouver BC, V6T 1Z1, Tel: (604) 822-5111, Fax: (604) 822-6929.

Retail Wholesale Union, Local 517, Scholarship
Deadline: June 30
Terms of reference: A scholarship of $250 is offered to dependents or legal wards of members of Local 517. It is open in competition to applicants who are proceeding from grade 12 to any accredited University or college in BC, in a full program leading to a degree or diploma. Should there be a tie, the financial need of the applicant and his/her family shall be the deciding factor.
Contact: Award #04779; Apply at University of British Columbia, Student Financial Assistance and Awards, Enrolment Services, 1036-1874 East Mall, Vancouver BC, V6T 1Z1, Tel: (604) 822-5111, Fax: (604) 822-6929.

Retail Wholesale Union Local 580 Bursary
Deadline: June 30
Terms of reference: Two bursaries of $1,250 each are offered to active members, or sons, daughters and legal wards of active members of the union in good standing. The bursaries are offered to undergraduate students at the University of British Columbia, the University of Victoria, BC Institute of Technology, or Simon Fraser University, or to a college in a full program leading to a degree or equivalent in any field. Candidates must have satisfactory academic standing however, winners are selected on the basis of financial need.
Contact: Award #07672; Apply at University of British Columbia, Student Financial Assistance and Awards.
Enrolment Services, 1036-1874 East Mall, Vancouver BC, V6T 1Z1, Tel: (604) 822-5111, Fax: (604) 822-6929.

Retail Wholesale Union Local 580 – Stan Colbert Bursary
Deadline: June 30
Terms of reference: A $1,250 bursary is offered to active members, or sons, daughters and legal wards of active members of the union in good standing. It is offered to an undergraduate student at the University of British Columbia, the University of Victoria, BC Institute of Technology or Simon Fraser University, or to a college in a full program leading to a degree or equivalent in any field. Candidates must have satisfactory academic standing however, winners are selected on the basis of financial need.
Contact: Award #07939: Apply at University of British Columbia, Student Financial Assistance and Awards, Enrolment Services, 1036-1874 East Mall, Vancouver BC, V6T 1Z1, Tel: (604) 822-5111, Fax: (604) 822-6929.

Father Emmanuele Rosaia Scholarship
Deadline: August 25
Terms of reference: A scholarship in the name of Father Emmanuele Rosaia has been set up by the Italian Cultural Centre Society to pay tribute to this special man whose charitable Franciscan spirit has helped and cheered many a soul. Two scholarships of $1,000 each will be awarded. Selection criteria:
- Applicants must be residents of the Lower Mainland
- Applicants must be Roman Catholic and of Italian-Canadian origin
- Applicants must be grade 12 students who expect to graduate with a 3.0 (B) grade point average or higher,
- Applicants are expected, upon high school graduation, to attend a university or community college where studies will lead to a university degree,
- Applicants are asked to submit a typed letter of no more than 400 words, double-spaced, explaining why he/she deserves to be the recipient of the scholarship.
- Applicants are asked to submit no less than three letters of reference – one of which must be written by the applicant’s parish priest and one of which must be written by a current teacher of the applicant – supporting the scholarship application and explaining why he/she is an appropriate candidate for the scholarship.
Contact: The Father Rosaia Scholarship Committee, c/o St. Francis of Assisi Parish, 2025 Napier Street, Vancouver BC, V5L 2N8.

TD Canada Trust Scholarship for Outstanding Community Leadership
Deadline: October 31
Terms of reference: Candidates must be Canadian citizens or permanent residents. They must be graduating from their last year of high school (and/or CEGEP in Quebec) and have demonstrated involvement in community leadership. Contact: Canadian Awards Program, Association of Universities and Colleges of Canada (AUCC), 350 Albert Street, Suite 600, Ottawa ON, K1R 1B1, Tel: (613) 563-1236, Fax: (613) 563-9745. Or call toll-free 1-800-308-8306. Email: awards@aucc.ca Web: www.aucc.ca

Toyota Earth Day Scholarship
Deadline: January 31
Terms of reference: The Toyota Earth Day Scholarship is now available to graduating high school students and Quebec junior college students who have achieved academic excellence and distinguished themselves in environmental community service. Please visit website for detailed program information and applications.
Contact: Toyota Earth Day Scholarship Program, 111 Peter Street, Suite 503, Toronto ON, M5V 2H1. Email: scholarship.coord@earthday.ca Web: www.earthday.ca/scholarship

United Association of Plumbers & Steamfitters, Local 170 Scholarship
Deadline: June 30
Terms of reference: Two scholarships of $1,000 each are offered to students entering first year at any public university in British Columbia. A candidate must be the son, daughter or legal dependent of a member in good standing of the United Association of Plumbers & Steamfitters, Local 170. Contact: Award #04798: Apply at University of British Columbia, Student Financial Assistance and Awards, Enrolment Services, 1036-1874 East Mall, Vancouver BC, V6T 1Z1, Tel: (604) 822-5111, Fax: (604) 822-6929.

Externally Administered Scholarships for Continuing Students
The following scholarships are not administered by Simon Fraser University. The information is intended for general reference only; it may be subject to change. The student is responsible for enquiring and applying through the appropriate agency as indicated in the description.

External Scholarships for All Students
Aboriginal Veterans’ Memorial Scholarship Trust Fund
Deadline: unknown
Terms of reference: The Aboriginal Veterans’ Memorial Scholarship Trust Fund is available to all Aboriginal post-secondary students, including status and non-status Indians, Inuit and Metis. Preference may be given to descendants of Aboriginal veterans. Students must be enrolled in recognized Canadian or foreign post-secondary educational institutions, including technical institutes, colleges, CEGEPs and universities. Preference may be given to full-time students.
Contact: National Aboriginal Achievement Foundation, 70 Yorkville Avenue, Suite 33A, Toronto ON, M5R 1B9, Tel: (416) 926-0775, Fax: (416) 926-7554. Web: www.nnaf.ca

All Nations Trust Company/All Nations Development Corporation Endowment Fund Awards
Deadline: September 14
Terms of reference: The purpose of these awards is to recognize individuals who are goal oriented, dedicated and have demonstrated good citizenship within their communities. This award is open to status, non-status, or Metis students who currently live within or are originally from one of the following five Tribal Regions: Kootenay, Liloot, Shuswap, Thompson and Okanagan. These awards are designed to reward academic achievements and assist Aboriginal students in their pursuit of post-secondary education. MESSENGER AWARD: Students must be graduating from high school in the current year and registered in a post-secondary institute within a three year period. Students must be enrolled in recognized Canadian or foreign post-secondary educational institutions, including technical institutes, colleges, CEGEPs and universities. Preference may be given to full-time students. POST SECONDARY AWARD: Students must be graduating from a post-secondary institute within a three year period. Students must be enrolled in recognized Canadian or foreign post-secondary educational institutions, including technical institutes, colleges, CEGEPs and universities. Preference may be given to full-time students.
Contact: ARC Arts Council Awards and Scholarship Committee, 2425 St. John’s Street, Port Moody BC, V3H 2B2, Tel: (604) 931-8255, Fax: (604) 931-4214. Email: arcarts@intergate.bc.ca Web: http://www.intergate.bc.ca/arcarts

Associated Medical Services Hannah Institute Studentship
Deadline: January 10
Terms of reference: To offer undergraduate students the challenge, satisfaction and techniques of historical research and to encourage future serious study of medical history. Research is to be in the area of history of health, disease, and medicine, broadly defined. The research project must be of a size capable of completion during the three-month period of the studentship and should be a closely supervised full-time research experience. It should not be for academic credit nor should it represent work already undertaken or submitted for academic credit. Students must be Canadian citizens or permanent residents and registered in a recognized undergraduate program at a Canadian university. Any full-time undergraduate student is eligible to apply provided the proposed project and supervisor meet the criteria.
Contact: Associated Medical Services, Inc., 162 Cumberland Street, Suite 228, Toronto ON, M5R 3N5, Tel: (416) 924-3368, Fax: (416) 333-3338. Email: grantsof@ams-inc.on.ca

Dr. Aimee August Scholarship
Deadline: November 30
Terms of reference: The Dr. Aimee August Scholarship is awarded annually to a SCES/SFU student of Native ancestry who best demonstrates exceptional scholarship combined with an
appreciation for Native language and culture. Applicants must be of Native ancestry and registered as full-time students (three courses or more). The award is restricted to students who have successfully completed a minimum of 24 credit hours in the SCES/SFU program. Candidates will be evaluated according to the following criteria:

- Applicants must have a cumulative GPA of 3.0 or higher.
- Applicants must show an appreciable financial need.
- The committee will weigh such factors as parental and marital status, part-time employment, and Band assistance.
- Applicants must demonstrate sensitivity to the unique cultural and linguistic traditions of Native people. The committee will consider such criteria as the student’s extra-curricular activities within Native organizations, personal research, and the nature of studies being pursued.

Contact: Chair, SCES/SFU Joint Steering Committee, 355 Yellowhead Hwy., Kamloops BC, V2H 1H1.

Austrian Scholarship Award Program

Deadline: March 1

Terms of reference: The Austrian Embassy has provided scholarships for study at an institution in Austria. The scholarships are available to applicants in all fields of study. Graduate students and scientist may also work as guest researchers or undertake special studies in libraries and archives, or in research institutes. General requirements for applicants are: at least 20 years of age and 2 years of academic studies. The student must have completed an energy efficiency or energy management course or have held a job related to energy management.

Contact: Austrian Embassy, 445 West Broadway, Ottawa ON, K1N 6T7, Tel: (613) 789-1444, Fax: (613) 789-3431.

Web: www.bmbwk.gv.at, www.oead.ac.at

British Columbia Asia Pacific Students’ Awards

Deadline: unknown

Terms of reference: The British Columbia Centre for International Education has received an allocation from the Ministry of Advanced Education, Training and Technology to fund the British Columbia Asia Pacific Students Scholarship Program. The program has been established to provide an opportunity for British Columbia public university students to gain a better understanding of the cultures, economies and languages of Asian countries. The program will provide scholarships for outstanding students to permit attendance in a formal and rigorous program of educational study overseas. Research activities and co-op work terms are not eligible for funding under this program. Countries eligible for study are: Bangladesh, Brunei, China, Hong Kong SAR, India, Indonesia, Japan, Korea, Malaysia, Nepal, Oceania (except Australia and New Zealand), Philippines, Singapore, Sri Lanka, Taiwan, Thailand and Vietnam.

Contact: Chair, SCES/SFU Joint Steering Committee, 355 Yellowhead Hwy., Kamloops BC, V2H 1H1.

Web: www.bmbwk.gv.at, www.oead.ac.at

BC Hydro Aboriginal Scholarships

Deadline: March 31

Terms of reference: Scholarships are offered to individuals who are status/non-status Indians, Inuit or Metis and are residents of BC, and who plan to attend in a public post-secondary institution in any field of study.

Contact: BC Hydro, Outreach Programs, 16th Floor, 333 Dunsmuir Street, Vancouver BC, V6B 5R3, Tel: (604) 623-3994.

Web: www.bchydro.com/scholarships

BC Hydro Scholarships

Deadline: March 31

Terms of reference: BC Hydro is offering a number of $1,000 scholarships. Candidates must submit a completed application form, current official transcript, reference letter from a teacher or faculty member, a resume and a cover letter describing why you are a good candidate for the scholarship. Please submit a separate application for each category in which candidates wish to be considered.

GENERAL PROGRAM: Scholarships are offered to BC residents currently enrolled in a BC university, technical school or college who are in grade 12 and will be pursuing a public post-secondary education in any field of study.

POWER SMART: Scholarships are available to BC students who have completed an energy efficiency or conservation project/paper for school and who are currently enrolled in a public post-secondary institution or who are in Grade 12 and will be pursuing a public post-secondary education. A summary (maximum of 1000 words) must be included with the application.

L’ECOLE POLYTECHNIQUE MEMORIAL FUND: Scholarships are offered to BC female students at any BC university, technical school or college or who are in grade 12 and will be pursuing a public post-secondary education in any engineering or technical program.

ABORIGINAL: Scholarships are offered to individuals who are status/non-status Indians, Inuit or Metis and are residents of BC, and who plan to enroll in a public post-secondary institution or who are attending a public post-secondary institution in any field of study.

Contact: BC Hydro, Outreach Programs, 16th Floor, 333 Dunsmuir Street, Vancouver BC, V6B 5R3, Tel: (604) 623-3994.

Web: www.bchydro.com/scholarships

BC Paraplegic Foundation Scholarships/Bursaries

Deadline: July 31

Terms of reference: Each year the BC Paraplegic Foundation gives out a number of scholarships and bursaries to needy students with disabilities attending post secondary institutes in British Columbia. The awards are available to members of the BC Paraplegic Association who have a physical disability and will be awarded on academic standing, merit and the basis of financial need. Recipients must be residents of British Columbia, Canadian Citizens, or Landed immigrants. Contact: Scholarship and Bursary Awards Committee, 102-1277 Marine Drive, Vancouver BC, V6P 5Y7, Tel: (604) 243-3611, Fax: (604) 243-3671.

W. Norman Burgess Scholarship

Deadline: July 15

Terms of reference: The scholarship is available to a university student proceeding to a university degree, who is now at the first year level or higher. Preference will be given to applicants from central Vancouver Island. Applications should include a transcript and a letter describing the student’s field of study, aims, activities associated with the field of study and extracurricular activities.

Contact: Burgess Scholarship, Royal Canadian Legion Branch 211, 35 Blanshard St, Victoria BC, V8T 1G2.

Burnaby Savings Credit Union Scholarship

Deadline: June 30

Terms of reference: Two scholarships of $500 each are offered to students at the University of British Columbia, Simon Fraser University, University of Victoria, BC Institute of Technology or a BC college. Applicants must be active members or immediate family of an active member of the Burnaby Savings Credit Union. Contact: Award #04707: Apply at University of British Columbia, Student Financial Assistance and Awards, Enrolment Services, 1036-1874 East Mall, Vancouver BC, V6T 2B5, Tel: (604) 822-5111, Fax: (604) 822-6929.

Calverly Estate Scholarship Fund

Deadline: before the second week of August and the second week of October

Terms of reference: Scholarships in the amounts of $300 and $500 will be awarded to non-status Aboriginal applicants who have lived in BC for the last six months and must be active members of the United Native Nations local in their area (or be active in their individual community toward the betterment of
Aboriginal peoples). Submit application form with school transcript, a letter of recommendation (from UNN local president, chief, council, band manager, school counsellor, teacher or principal), a personal profile, a letter stating career goals, personal traits/characteristics and involvement with UNN. Contact: United Native Nations, 8th Floor, 736 Granville Street, Vancouver BC, V6Z 1G3, Tel: (604) 688-1821, Fax: (604) 688-1823.

Canada-Taiwan Student Exchange Program
Deadline: April 9
Terms of reference: The Canada-Taiwan Student Exchange Program is a scholarship program sponsored by the Department of Human Resources Development Canada. This program is aimed at providing opportunities for undergraduate Canadian students to study at participating Taiwanese universities, and for undergraduate students from Taiwan to study at participating Canadian universities. All field of study, except medicine, are eligible. The applicant must be nominated by his/her institution. No applications will be accepted directly from students. Contact: Canadian Awards Program, Association of Universities and Colleges of Canada (AUCC), 350 Albert St., Suite 600, Ottawa ON, K1R 1B1, Tel: (613) 563-1236, Fax: (613) 563-9745. Email: gaillagh@aucc.ca Web: www.aucc.ca

Canadian Federation of University Women Parkinson/Quailicum – The James Craig Reid Memorial Scholarship
Deadline: June 9
Terms of reference: To be awarded annually to a male or female student who must have graduated from a secondary school in District 69 (the Parksville/Qualicum area) or have lived in the area for at least three years. Candidates should be entering their 4th year of study in a university academic program. Preference shall be given to candidates in the Faculty of Music, Fine Arts or Liberal Arts, or Education specializing in those areas. Contact: C.F.U.W. – Parksville/Qualicum, Secretary, James Craig Reid Memorial Scholarship Trust, PO Box 113, Qualicum Beach BC, V9K 1S7. Web: www.macn.bc.ca/~cfuw

Canadian Hard of Hearing Association Scholarship
Deadline: January 31
Terms of reference: The purpose of the scholarship program is to offer financial assistance and recognition to hard of hearing and deafened students registered in full time program at a recognized Canadian college or university, in any area of study, with the ultimate goal of obtaining a diploma or degree. Applicants are requested to read the criteria for eligibility and to provide all information required. Contact: Canadian Hard of Hearing Association Scholarship Program, 2435 Holly Lane, Suite 205, Ottawa ON, K1V 7P2, Tel: (613) 526-1284, Toll Free: 800-263-8068, Fax: (613) 526-4718, TTY: (613) 526-2982. Email: secretariat@chhafoundation.ca

Canadian Japanese – Mennonite Scholarship
Deadline: April 1
Terms of reference: The scholarship will be awarded to a student who is enrolled in a graduate degree program; a Canadian studying at a university in Canada and engaged in research that will assist the protection of minority or human rights in Canada. Contact: Mennonite Central Committee Canada, Attn: Canadian Japanese-Mennonite Scholarship, 134 Plaza Drive, Winnipeg MB, R3T 5K9, Tel: (204) 261-6381, Fax: (204) 269-9875. Email: canadajapan@cmcc.ca Web: www.mcc.org

Canadian Northern Studies Polar Commission Scholarship – Canadian Northern Trust
Terms of reference: This award will be offered to students enrolled in a doctoral program at a Canadian university and engaged in interdisciplinary studies and research. Proposals are invited from students who (a) will engage in research culminating in a thesis or other such document, (b) whose programs show excellence in research in polar regions and (c) are willing to communicate results in a major national or Northern forum. Contact: Association of Canadian Universities for Northern Studies (ACUNS), 17 York Street, Suite 405, Ottawa ON, K1N 9J6, Tel: (613) 562-0515, Fax: (613) 562-0653. Email: acuns@cyberus.ca Web: www.cyberus.ca/~acuns

Canadian Printing Industries Scholarship Trust Fund
Deadline: unknown
Terms of reference: The amount of each scholarship is $1000 per year. Students must be enrolled for a minimum of two years, on a full time basis, in an approved program (not design or art) in a Canadian school. The eligibility of any program and institution is at the discretion of the board of trustees of the scholarship fund, whose decision is final. Applicants must maintain a B average or better and must have an interest in pursuing a career in the printing industries (this includes pre-press, press, sales, management, estimating, etc.). Contact: Canadian Printing Industries Scholarship Trust Fund, c/o Canadian Printing Industries Association, 75 Albert Street, Suite 906, Ottawa ON, K1P 5E7, Tel: 1-800-267-7280.

Canadian Sanitation Supply Association Scholarship Program
Deadline: June 1
Terms of reference: Seven scholarships will be awarded to Canadian students attending college or university in Canada who have achieved a high level of academic and leadership standards over the years. The selection committee’s decision will be based on academic and social achievements as well as the quality of the essay. Contact: Canadian Sanitation Supply Association, 200 Mill Road, KG-10, Etobicoke ON, M9C 4W7, Tel: (416) 620-9320, Fax: (416) 620-7199. Email: cssa@thewire.com Web: www.cssa.ca

Canadian Space Agency Space Exploration Scholarship
Deadline: January 14
Terms of reference: The Canadian Space Agency will sponsor one Canadian student to participate in the NASA Astrobiology Academy, a ten-week summer research program at Ames Research Center in California. A substantial part of the student’s time is spent within a team working on projects, listening to and debating lectures, and traveling together. These avenues help to develop the leadership, teamwork, and critical thinking skills. The candidate must have demonstrated enthusiasm and interest in space, leadership potential and overall academic excellence. Eligibility requirements and application materials are available on website. Contact: CSSP Canadian Space Agency, Space Science Program, 6757 route de l’aéroport, Saint-Hubert Quebec, J3Y 8Y9. Email: SES@space.gc.ca Web: www.space.gc.ca/ees

Canadian Water Resources Association
Deadline: February 15
Terms of reference: Four scholarships are offered to graduate students whose programs of study focus upon applied, natural, or social science aspects of water resources. All applicants will receive a one-year membership in the Canadian Water Resources Association. The scholarships are open either to Canadian citizens or landed immigrants who are full-time graduate students, in any discipline or profession, attending a Canadian university or college. Application Requirements:
• A 500-word statement which outlines the student’s research project and its relevance to sustainable water resources. This statement should focus on the research methods of the project.
• Course transcripts at the undergraduate and graduate level.
• Two references, to be sent directly to the scholarship committee by the referees or appropriate official of the university or college.
• A statement from the program chairman or director endorsing the application from that program. The endorsement is not a letter of reference and must be attached to the application form.

Contact: Chairman, CWRA Scholarship Committee, Canadian Water Resources Association, Membership Services, 400 Clyde Road, PO Box 1329, Cambridge ON, N1R 7G6, Tel: (519) 622-4764, Fax: (519) 621-4844.

Canadian Wireless Telecommunications Association (CWTA) Graduate Scholarship
Deadline: June 15
Terms of reference: The CWTA, together with five of Canada’s wireless telephone carriers – Bell Mobility, Clearnet Communications, Microlink Communications, Rogers AT&T Wireless and TELUS Mobility – have established a scholarship fund to benefit students at the master or PhD level whose primary field of study is related to wireless telecommunications including, but not limited to, engineering or business. Candidates must be a Canadian citizen or permanent residents of Canada and enrolled or planning to enrol in a graduate degree program at a university in Canada, and must intend to use the scholarship to assist them to study in disciplines related to wireless telecommunications. Awards are granted on the basis of academic standing and demonstrated potential for advanced study and research. Contact: Canadian Awards Program, Association of Universities and Colleges of Canada (AUCC), 350 Albert St., Suite 600, Ottawa ON, K1R 1B1, Tel: (613) 563-1236, Fax: (613) 563-9745. Email: awards@aucc.ca Web: www.aucc.ca

Harold Arvid Christenson Memorial Scholarship Fund
Deadline: September 1
Terms of reference: The late Harold Arvid Christenson, former manager of Pacific Coast Fishermen’s Mutual Marine Insurance Company, bequeathed scholarships for sons, daughters or legal wards of past or present members and employees of the company. Applicants must be enrolled full-time at a post-secondary educational institution. The number and amount of these scholarships will be determined by the board of directors of the company. Contact: Pacific Coast Fishermen’s Mutual Marine Insurance Company, Suite 200-4259 Canada Way, Burnaby BC, V5G 1H1, Tel: (604) 438-4240, Fax: (604) 438-5756.

Coastal Capital Savings Education Awards
Deadline: March 31
Terms of reference: The awards are available for members of Coastal Capital Savings who are registered in a post-secondary program or planning to register within the year. Selection is based on community service, school activities, leadership and academic performance. Special circumstances will also be considered. Contact: Coastal Capital Savings Credit Union, Chair, Education Awards Committee, #400-645 Tyee Road, Simon Fraser University 2005 • 2006
U G A R D E T E R U N D E R G R A D U A T E

90 Financial Assistance and Awards

Victoria BC, V9A 6X5 Fax: (250) 483-8108 or (604) 517-7655.
Web: www.coastcapitalsavings.com

Dental Laboratory Technician Program
Entrance Scholarship (Vancouver Community College)

Terms of reference: A $1500 scholarship will be awarded to the eligible applicant who has achieved the highest score in the Vancouver Community College Dental Laboratory Technician Program’s selection process. Applicants must be graduates of an accredited university or a three-year program at an accredited art college.

Contact: Vancouver Community College (City Centre Campus), 250 West Pender Street, Vancouver BC, V6B 1S9, Tel: (604) 874-7148.

Embassy of Italy Scholarships
Deadline: March 25

Terms of reference: The Government of Italy offers scholarships to Canadian citizens wishing to pursue studies in Italy. They are intended for university undergraduate and graduate students, professionals, teachers, and artists, who meet the necessary requirements for enrollment in Italian universities, who would like to attend specialized courses or undertake research in specific fields. The scholarships are awarded directly by the scholarship holder.

Contact: Envision Education Award, 6470 – 201 Queenview Drive, Ottawa ON, K2B 1A2.

Fairfax Financial Holdings Limited Scholarship Program
Deadline: June 1

Terms of reference: This program is offering up to sixty scholarship awards for students enrolled directly by the scholarship holder.

Contact: Fairfax Financial Holdings Limited, 517-7655.

Fessenden-Trott Awards Program
Deadline: June 1

Terms of reference: This award is available to undergraduate students who are completing the first year of a university degree program or college technical diploma program and be in need of financial assistance.

Contact: Canadian Awards Program, Association of Universities and Colleges of Canada (AUCC), 350 Albert St., Suite 600, Ottawa ON, K1R 1B1, Tel: (613) 563-1236, Fax: (613) 563-9745. Email: awards@aucc.ca

Geomatics Canada Scholarship Program – Canadian Institute of Geomatics
Deadline: March 1

Terms of reference: The Geomatics Canada Scholarship Program has been created to assist in furthering the education and training of students in the field of Geomatics. Application for the scholarship is restricted to students that are in good standing, registered full time in a recognized university, technical institute or community college in Canada and who are either Canadian citizens or who have achieved landed immigrant status.

Contact: The Chair, Geomatics Canada Scholarship Program, c/o Canadian Institute of Geomatics, Suite 120, 162 Cleopatra Drive, Nepean ON, K2G 5X2, Tel: (613) 224-9851, Fax: (613) 224-8577. Web: www.cig-ascg.ca

The Keith Gilmore Foundation
Deadline: July 1

Terms of reference: The Foundation was established to provide scholarships to worthy applicants taking secondary education in the fields of agriculture and journalism and for those schools that offer it, agricultural journalism. There is one $2,000 scholarship offered to an individual in a post graduate degree program in agriculture, journalism or communications at a recognized university. There are four $1,500 scholarships offered to individuals in an undergraduate degree program in agriculture, journalism or communications at a recognized university. There are four $750 scholarships offered to individuals enrolled in a recognized diploma program in agriculture and/or journalism or communications.

Contact: The Office of the Medical Health Officer, Northern Health Authority, 1444 Edmonton Street, Prince George, BC, V2M 6W5. Web: www.terryfox.ca

Terry Fox Humanitarian Award
Deadline: February 1

Terms of reference: The Terry Fox Humanitarian Award Program is intended to encourage Canadian youth to seek the high ideals represented by Terry Fox by the granting of commemorative awards for the pursuit of higher education. The program provides scholarships to students entering or attending post secondary educational institutions within Canada. The successful applicants are recognized for dedication to community service, humanitarianism, perseverance and courage in the face of obstacles, and pursuit of excellence in fitness and academics. Award recipients must be Canadian citizens or have landed immigrant status. The value of the award is $6,000 annually, for a maximum of four years or until a first degree is obtained. For those who attend institutions that do not charge tuition fees, the award is $3,500 per year. Successful Terry Fox scholars are expected to participate in volunteer activities such as volunteer service, yearly meeting and annual reports.

Contact: Terry Fox Humanitarian Award Program, Simon Fraser University, 8888 University Drive, Burnaby BC, V5A 1S6, Tel: (604) 291-3307, Fax: (604) 291-3311. Email: terryfox@sfu.ca
Web: www.terryfox.org

Contact: The Keith Gilmore Foundation, 5160 Skyline Way, N.E., Calgary AB, T2E 6V1, Tel: (403) 275-2662, Fax: (403) 295-1333.

Global Television Network Scholarship Award
Deadline: June 3

Terms of reference: This program is offering up to sixty scholarship awards for students enrolled directly by the scholarship holder. The scholarships are awarded directly by the scholarship holder.

Contact: Global Television Network, 517-7655.
Undergraduate

Terms of reference: This annual scholarship award is offered to a Canadian student from a self-identified visible minority, and provides educational assistance towards the pursuit of a career in broadcasting. The award, valued at $4,000, covers all tuition fees and textbooks for one full scholastic year of a radio and television arts program or journalism program at a recognized Canadian university or college, commencing in the fall.

Eligibility criteria:
- Canadian student who is from a self-identified visible minority. Members of visible minority groups are persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour,
- Secondary school graduate with a grade average suitable for admission to a radio and television arts or journalism program at a recognized Canadian university or college; or a mature student eligible for admission to a radio and television arts or journalism program at a recognized Canadian university or college,
- Strong English language communications skills.

Contact: Global Television Network, 1189 Ponce de Leon Avenue, Atlanta GA, 30306-4624, USA, Tel: (404) 377-9700, Fax: (416) 442-3377.

Global Television Network Scholarship – Internship Award for a Canadian with a Physical Disability
Deadline: June 3

Terms of reference: This annual scholarship-internship award is offered to a Canadian student with a mobility impairment, and provides educational assistance as well as a challenging opportunity to work in private television, in pursuit of a career in broadcasting. The award, valued at about $15,000, covers all tuition fees and textbooks, for one full scholastic year of a radio and television arts program or journalism program at a recognized Canadian university or college, commencing in the Fall. The award also includes a three or four month Internship at any one of the Global Television stations for the summer, and moving expenses associated with the Internship.

Eligibility criteria:
- Canadian student with a mobility impairment,
- Secondary school graduate with a grade average suitable for admission to a radio and television arts or journalism program at a recognized Canadian university or college; or a mature student eligible for admission to a radio and television arts or journalism program at a recognized Canadian university or college,
- Strong English language communications skills.

Contact: Global Television Network, 81 Barber Greene Road, Toronto ON, M3C 2A2, Tel: 1-800-387-8001, Fax: (416) 442-3377.

Golden Key Scholarships and Awards
Deadline: unknown

Terms of reference: Golden Key National Honour Society is committed to the cause of recognizing and encouraging academic excellence. To recognize members’ accomplishments, scholarships and awards are provided to deserving Golden Key members. Visit Golden Key website for detailed information.

Contact: Golden Key National Honour Society, International Headquarters, 1189 Ponce de Leon Avenue, Atlanta GA, 30306-4624, USA, Tel: 1-800-377-2401, Fax: (404) 373-7033.
Email: mboone@gknhs.gsu.edu
Web: www.gknhs.gsu.edu

Government Finance Officers Association – Daniel B. Goldberg Scholarship for Public Finance Graduate Students
Deadline: February 7

Terms of reference: The GFOA’s Daniel B. Goldberg Scholarship of $5,000 will be awarded to a student enrolled in a full-time master’s program preparing for a career in state and local government finance. The candidate must hold a baccalaureate degree or its equivalent and be a citizen or permanent resident of the U.S. or Canada. Recommendation from student’s academic advisor or dean of the graduate program is required. The winner of the scholarship will be invited, at GFOA expense, to attend the GFOA annual conference, where the award is presented.

Contact: Scholarship Committee, Government Finance Officers Association, 203 North LaSalle Street, Suite 2700, Chicago IL, 60601-1210, Tel: (312) 977-9700.
Web: www.gfoa.org

Government Finance Officers Association – George A. Nielsen Public Investor Scholarship
Deadline: March 1

Terms of reference: The GFOA’s George A. Nielsen Public Investor Scholarship of $5,000 will be awarded (may be awarded as two $2500 scholarships) to an undergraduate or graduate student in public administration, finance, business administration or a related field. The candidate must be employed at least one year by a state, local, government or other public entity and must be a citizen or permanent resident of the U.S. or Canada. Recommendation by employer is required.

Contact: Scholarship Committee, Government Finance Officers Association, 203 North LaSalle Street, Suite 2700, Chicago IL, 60601-1210, Tel: (312) 977-9700.
Web: www.gfoa.org

Government Finance Officers Association – Public Employee Retirement Research and Administration Scholarship
Deadline: February 4

Terms of reference: The GFOA’s Public Employee Retirement Research and Administration Scholarship of $4,000 is available to a full- or part-time student enrolled in a graduate program in public administration, finance, business administration or social sciences. Student must have an intent to pursue a career in state or local government with a focus on public sector retirement benefits, and must hold a baccalaureate degree or its equivalent. Must be a citizen or permanent resident of the US or Canada. Recommendation from the student’s academic advisor or dean of the graduate program required.

Contact: Scholarship Committee, Government Finance Officers Association, 203 North LaSalle Street, Suite 2700, Chicago IL, 60601-1210, Tel: (312) 977-9700.
Web: www.gfoa.org

John Gyles Education Awards
Deadline: April 1, June 1 and November 1

Terms of reference: The John Gyles Education Awards are available to students in both Canada and the United States. Full Canadian or American citizenship is a requirement. Awards are available to male and female students for all areas of post secondary study. A minimum of 2.7 is required. Criteria other than strictly academic ability and financial need are considered in the selection process. Students can receive an application by showing a variety of interests, including volunteer and community experience. Application must include a resume showing a variety of interests, including volunteer and community experience. Application must include name, address and telephone number of two references. Reference letters should be sent directly to the office of Planned Parenthood Federation of Canada.

Contact: Phyllis P. Harris Scholarship Committee, Planned Parenthood Federation of Canada, 430 – 1 Imperial Street, Ottawa ON, K1N 7T7, Tel: (613) 241-4474, Fax: (613) 241-7550.
Web: www.ppfc.ca

Harry Bridges Undergraduate Scholarship (ILWU)
Deadline: June 30

Terms of reference: Three scholarships of $1,500 each are offered to members, and sons and daughters of members, in good standing of the International Longshore and Warehouse Union in attendance at the University of BC, the University of Victoria, Simon Fraser University, BC Institute of Technology or any college in BC who will continue in a full program of studies in the next session.

Contact: Award #00530: Apply at University of British Columbia, Student Financial Assistance and Awards, Enrolment Services, 1036-1874 East Mall, Vancouver BC, V6T 1Z1, Tel: (604) 822-5111, Fax: (604) 822-6929.

Thomas P. Mayes Scholarship (ILWU)
Deadline: June 30

Terms of reference: An undergraduate scholarship of $1,500 is offered to members, and sons and daughters of members, in good standing. Candidates may attend the University of BC, the University of Victoria, Simon Fraser University, BC Institute of Technology or any college in BC and must enrol in a full program of studies.

Contact: Award: #00558: Apply at University of British Columbia, Student Financial Assistance and Awards, Enrolment Services, 1036-1874 East Mall, Vancouver BC, V6T 1Z1, Tel: (604) 822-5111, Fax: (604) 822-6929.

Ralph Scruton Memorial Scholarship (ILWU Local 506)
Deadline: June 30

Terms of reference: A $750 scholarship is available to members of the union in good standing and their sons and daughters. Candidates must be residents and enrolled as a degree student at GFOA expense, to attend the GFOA annual conference, where the award is presented.

Contact: The Secretary, P.O. Box 4808, Station A, Fredericton NB, E3B 5G4, Tel: (506) 459-7460.

Imperial Tobacco Canada Limited Scholarship Fund for Disabled Students
Deadline: June 1
Terms of reference: This scholarship has been created to encourage Canadian disabled students to pursue university studies with the ultimate objective of obtaining a first university degree. The criteria are as follows: any undergraduate program in any field of study; candidates must meet the following definition: “A disability is a functional limitation resulting from a physical, sensory, or mental impairment, which, for an indefinite period, affects the ability of the student to perform the activities necessary to participate fully in post-secondary learning;” must be Canadian citizens or permanent residents; must be entering or currently enrolled in a Canadian undergraduate degree program in a Canadian post-secondary institution; holders of an undergraduate degree are not eligible for the scholarship. The award is for one academic year which may be renewed upon application. Students who re-apply for further awards will be considered in competition with all other applicants. A student can receive the award for a total of four year maximum.

Contact: Canadian Awards Program, Association of Universities and Colleges of Canada (AACC), 350 Albert St., Suite 600, Ottawa ON, K1R 1B1, Tel: (613) 563-1236, Fax: (613) 563-9745.

Email: awards@aucc.ca

Web: www.aucc.ca

Inter-American Development Bank Internship Program
Deadline January 31
Visit website http://www.jadb.org for details on employment and scholarships.
Contact: Inter-American Development Bank, 1300 New York Avenue, NW, Washington, DC 20577, USA
Web: www.jadb.org

Interior Logging Association Scholarship
Deadline: July 31
Terms of reference: There are several scholarships available for $1,000 to students enrolling in a full-time forestry related discipline; in any discipline who are immediate relatives of the Interior Logging Association; who are enrolling in a Trades School; in a Business Administration discipline.
Contact: Chairman, I.L.A. Scholarship Committee, #202-635 Victoria St., Kamloops BC, V2C 2B3, Tel: (250) 374-0733, Fax: (250) 374-0700.

Jewish Women International of British Columbia Scholarship
Deadline: June 30
Terms of reference: Two scholarships of $500 each are offered to members of the Hillel or sons and daughters of members of Jewish Women International of Canada. Students must have successfully completed at least one year at Simon Fraser University, University of British Columbia or Vancouver Community College (Langara) by June 30 and must be continuing studies at any of the three institutions. Application must be accompanied by a transcript of all post-secondary studies completed.
Contact: Award #00581: Apply at University of British Columbia, Student Financial Assistance and Awards, Enrolment Services, 1036-1874 East Mall, Vancouver BC, V6T 1Z1, Tel: (604) 822-5111, Fax: (604) 822-6929.

KPMG First Nations and Aboriginal Student Awards
Deadline: May 20
Terms of reference: The program is available to encourage and assist First Nations and Aboriginal students in the pursuit of post-secondary education in the fields of business, economics, political science, law or First Nation financial administration. Candidates must be a Canadian citizen, a Status Indian, non-status Indian, Inuit, Innu or Metis, a full time student who is currently enrolled in or has been accepted to a university or a community college.
Contact: KPMG Student Awards Co-ordinator, KPMG LLP, Marsland Centre, 20 Erb Street West, Waterloo ON, N2L 1T2

Laidlaw Foundation Children at Risk, Aboriginal and Black Scholars Programs
Deadline: February 1
Terms of reference: The foundation will assist university students from First Nations and black communities who have demonstrated academic and leadership qualities in areas related to the Foundation’s Children at Risk Program. Eligible applicants are full-time students registered in a degree program at a Canadian university who are interested in the processes that contribute to the creation, maintenance and overcoming of conditions that diminish the life quality and life chances of children. Eligible candidates must be nominated by community leaders, employers or faculty.

Undergraduate Awards: First Nations students enrolled in a third or fourth year undergraduate program at a Canadian university may apply for a limited number of awards of up to $2,000 each for research relating to the Children at Risk Program. First Nations students enrolled in an undergraduate program at a Canadian university leading to a professional degree in a field relevant to the Children at Risk Program may also apply for an award of up to $500.

Transitional Year Programs: Promising First Nations students accepted into an undergraduate or graduate transitional year program at a Canadian university may apply for a limited number of awards of up to $2,000 each for research relating to the Children at Risk Program. First Nations students enrolled in an undergraduate program at a Canadian university leading to a professional degree in a field relevant to the Children at Risk Program may also apply for an award of up to $500.

The Law Foundation of Newfoundland Scholarship
Deadline: May 1
Terms of reference: The Law Foundation of Newfoundland awards up to three annual law school entrance scholarships valued at $5,000 each, tenable at a recognized Canadian law school. Successful applicants must be residents of the province of Newfoundland, have achieved academic excellence and not be the recipient of any other major scholarship.
Contact: Law Foundation of Newfoundland, Murray Premises, PO Box 5907, St. John’s NF, A1C 5X4, Tel: 754-4424, Fax: 754-4320.

Legal Studies for Aboriginal People Grants and Scholarships Program
Deadline: unknown
Terms of reference: check with contact.
Contact: Program Administrator, Legal Studies for Aboriginal People Program, Department of Justice Canada, 222 Queen St., 10th Floor, Ottawa ON, K1A 0H8.

Lotus Light Charity Society Scholarship
Deadline: August 16
Terms of reference: Any student who is 17 years or older and attending or planning to attend college, university, or a technical institute on a full-time basis may be eligible to receive a $300 scholarship to assist him/her in his/her studies. Preferences will be given to single parents with children under 11 years of age, or students who are working part-time. There are 10 awards to be given. Application must include: transcript of previous semester; if applicable, proof of acceptance for entry to educational institutions; resume containing information of education, work and volunteer experience and letters of reference from previous employers, teachers and volunteer organizations.
Contact: Lotus Light Charity Society, #200-357 East Hastings St., Vancouver BC, V6A 1P3, Tel: (604) 685-5548, Fax: (604) 805-1002.

Lucent Global Science Scholars Program – Canadian Bureau for International Education
Deadline: March 15
Terms of reference: Three scholarships of $5,000 US will be awarded to first year undergraduates in computing science/engineering, electrical engineering or related programs. Scholars participate in a Global Summit at Bell Labs in New Jersey and receive an internship offer from Lucent Canada.
Contact: Canadian Bureau for International Education, 220 Laurier Ave. West, Suite 1100, Ottawa ON, K1P 5Z9, Tel: (613) 237-4820, ext. 242, Fax: (613) 237-1073.

Email: info@cbie.ca

Web: www.cbie.ca

Manchester Graduate School of Social Science – School of Law Scholarship
Deadline: May 2
Terms of reference: Manchester Graduate School of Social Sciences, the Faculty of Law has set aside funds to make available two scholarships for postgraduate research students. These scholarships are sufficient to cover home fees and some maintenance. These scholarships are available for postgraduate research in any area of legal study. Enquiries may be addressed to the director of postgraduate studies.
Contact: Director of Postgraduate Studies, School of Law, University of Manchester, Oxford Road, Manchester, M13 9PL, England, Tel: (0161) 275-3563, Fax: (0161) 275-3579.

Email: post-law@man.ac.uk

Web: les.man.ac.uk/law

The Maritime Dairy Industry Scholarship
Deadline: December 16
Terms of reference: A $5,000 cash award and 15 weeks of employment within the dairy industry, in the Maritimes, that will complement the successful candidate’s field of study. The applicant must be a resident of either NS, NB, or PEI; currently attending a post-secondary education institution within Canada; completed at least two years of post-secondary education and currently enrolled in a program that has application to the dairy industry; applicant must show professional and academic promise and a commitment and interest in the dairy industry; applicant must complete the application form, one-page letter stating their commitment and interest in the dairy industry, official transcript of marks for completed years in post-secondary education, and three reference letters must be available (at least one from a professor). Selection will be based on academic standing, and potential contribution and commitment to the dairy industry.

Contact: The Maritime Dairy Industry Scholarship Committee, c/o Milk Maritime Inc., Suite 340-1133 St. George Blvd., Moncton NB, E1E 4E1, Tel: (506) 275-3563.
Contact: John McLendon Memorial Minority Postgraduate Scholarship, NACDA Foundation, PO Box 16428, Cleveland Ohio 44116 USA, Tel: (440) 892-4000, Fax: (440) 892-4007. Web: www.nacda.com

Mensa Canada Scholarship
Deadline: January 16
Terms of reference: Awards will be made on the basis of applicants’ essays. The essay should describe the applicants’ specific goals (academic, vocational, or career), and discuss the applicants have taken, relevant experience gained and any difficulties the applicants have overcome in pursuit of the goals. The applicants must be Canadian citizens or landed immigrants enrolled in a full-time program at an accredited post-secondary institution. Maximum essay length is 250 words. Applications must be sent by e-mail. Follow contest rules carefully.
Contact: Co-ordinator, Mensa Canada Scholarship Programme, 329 March Road, Suite 232, Box 11, Kanata ON, K2K 2E1, Tel: (613) 599-5897. Email: Essays@MensaCanada.ca
Web: www.mensacanada.ca

Japanese Government (Monbusho) Scholarship
Deadline: June 30
Terms of reference: The Monbusho (Ministry of Education, Science, Sports and Culture, Government of Japan) offers scholarships to foreign students who wish to study at Japanese universities as undergraduate students under the Japanese Government Scholarship Program. As well the Monbusho offers scholarships to foreign students who wish to study at Japanese universities as research students under the scholarship program. The Undergraduate Studies is a five year program of study at a Japanese university. It includes one year of Japanese language training and four years of undergraduate study. When completed, the student can obtain a bachelor’s degree. The Research Studies is for graduate students. The length of this scholarship is one and a half or two years.
Contact: Monbusho Scholarship Program, The Consulate General of Japan, 900-1177 West Hastings St., Vancouver BC, V6E 2K9, Tel: (604) 684-5868, ext. 370, Fax: (604) 684-6939. Email: japanese-consulate@vancouver consulate.gc.ca

National Congress of Italian-Canadians, Pacific Regions Scholarships
Deadline: April 20
Terms of reference: The NCIC Pacific Region offers up to four scholarships yearly of $500 each to students in the Italian-Canadian ethnocultural community who are beginning or continuing their studies at post-secondary institutions in British Columbia. The scholarships will be awarded on the basis of academic excellence, personal character, and social responsibility. The application must be accompanied by transcript of grades, letter of recommendation, one-page letter by candidate regarding career goals.
Contact: NCIC, c/o 3075 Slocan Street, Vancouver BC, V5M 2E9, Tel: (604) 430-3337.

National Federation of the Blind: Advocates for Equality Scholarship
Deadline: March 1
Terms of reference: The NFB: AE will be annually awarding three scholarships in the amount of $1,500 each. All scholarships are awarded on the basis of academic excellence, service to the community and financial need. All applicants must: be legally blind reside in Canada be pursuing or planning to pursue a full-time college or university level course of study, at a graduate or undergraduate level
Contact: The National Federation of the Blind: Advocates for Equality Scholarship Committee, #107 – 1455 Ellis Street, Kelowna BC, V1Y 2A3, Tel: (250) 862-3551, Fax: (250) 862-3966. Email: nfbae@home.com Web: www.nfbae.ca

The Navy League of Canada
Deadline: August 15
Terms of reference: The Navy League of Canada awards scholarships annually to serving or former Royal Canadian Sea Cadets entering the first year of a Community College, University or United World College course leading to a degree. These scholarships may not be granted where candidates enroll in the Canadian Forces on any basis whereby the Government provides free tuition or grants. Information and supporting documents i.e. personal letter of application, original certificate (transcripts), letter from Commanding Officer of Corps, recommendation of Branch President responsible for Corps, recommendation of Division President responsible for Corps must all be included. Contact: The Navy League of Canada, National Council, 305 Rideau St., Ground Floor, Ottawa ON, K1N 9E5, Tel: (613) 993-5415, Fax: (613) 990-8707.

Nuu-Chah Nulth Post-Secondary Scholarships
Deadline: August 31
Terms of reference: A scholarship in the amount of $500 is awarded to students of Nuu-chah-nulth ancestry who have completed a minimum of eight months of post-secondary work and will be enrolled in full-time (four courses and/or 12 credit hours) post-secondary studies. Send an application form, a transcript of last year’s grades, a letter of acceptance for the next school year and a minimum of a one-page essay on the importance of post-secondary education for Nuu-chah-nulth.
Contact: Nuu-chah-nulth Tribal Council, Box 1383, Port Alberni BC, V9Y 7M2, Tel: (604) 724-5777, Fax: (604) 723-0463.

Ontario Graduate Scholarship Program
Deadline: November 17
Terms of reference: The Ontario Graduate Scholarship (OGS) program is designed to encourage excellence in graduate studies at the master’s and doctoral levels. Students are eligible to apply if they: (a) plan to be enrolled full-time in an approved graduate program leading to a master’s or doctoral degree at an Ontario university that is financially assisted by the government of Ontario; (b) are a Canadian citizen or permanent resident, or have been admitted to Canada with a student visa; (c) have an average of at least A-, or the equivalent, on the last 20 one term/semester courses, or the equivalent, completed. OGS awards are not automatically renewed. You must submit a new application each year (12-month period).
Contact: Ontario Graduate Scholarship Program, Student Support Branch, Ministry of Training, Colleges and Universities, PO Box 4500, 4th Floor, 189 Red River Rd, Thunder Bay ON, P7B 6G9, Tel: (807) 343-7257, 1-800-465-3957. Web: osap.gov.on.ca

P.E.O. International Peace Scholarship Fund for Women
Deadline: unknown
Terms of reference: A scholarship of $5,000 is offered annually by the P.E.O. to a woman who is from a country other than the United States and Canada. The applicant must be qualified for admission to full-time graduate study or working toward a graduate degree in the University of their choice in the United States or Canada. The applicant must have a full year of class work remaining and enrolled and on campus for the entire school year of the grant and must promise to return to their country immediately.
following completion of degree to pursue their professional career.

Contact: P.E.O. International Peace Scholarship Fund, P.E.O. Executive Office, 3700 Grand Avenue, Des Moines, Iowa 50312-3820; Tel: (515) 255-3153, Fax: (515) 255-3820, Attention: International Student Advisor.

Petro-Canada Graduate Research Award Program
Deadline: March 28
Terms of reference: The program was established to recognize academic excellence and to support and encourage graduate research in specialized fields of study relating to the petroleum industry. Fields of study include sciences, engineering, social sciences, and business administration. Candidates must be Canadian citizens or permanent residents and working towards a master’s or doctoral degree (on a full-time basis) on a subject related to the oil and gas industry. Awards are granted on the basis of academic standing and demonstrated potential for advanced study and research.

Contact: Canadian Awards Program, Association of Universities and Colleges of Canada (AUCC), 350 Albert St., Suite 600, Ottawa ON, K1R 1B1; Tel: (613) 563-1236, Fax: (613) 563-9745. Email: awards@auccc.ca
Web: www.auccc.ca

The Pisapio Scholarships
Deadline: September 25
Terms of reference: Scholarships in the amount of $1,000 are available each year. Applicants must be accepted for admission to a university, be a full-time student working toward an undergraduate degree or graduate degree from the university and have completed a minimum first year of university studies. The awards will be given first to eligible applicants who are residents of the City of Nelson, second to eligible applicants who are residents of an area within a 50 mile radius of City of Nelson and third to eligible applicants who live in the East or West Kootenay regions.

Contact: The Pisapio Scholarships Trust, 421 Baker St., Nelson BC, V1L 4H7.

Prospera Credit Union Education Award Program
Deadline: March 31
Terms of reference: Prospera Credit Union offers several scholarships, bursaries and life long learner awards to the members. Applicants must be members in good standing of Prospera Credit Union for at least one year prior to the application deadline. Applicants must be residents of British Columbia, but may attend a university or college anywhere in Canada. Contact: Please contact Tanya Curtis at 604-864-6542. Email: tcurtis@prosperacreditunion.ca
Web: www.prosperacreditunion.ca

Public Works Association of British Columbia
Deadline: July 31
Terms of reference: This scholarship in the amount of $1,000 awarded in two $500 instalments, is open to any applicant planning full-time study at an educational institution in BC. Study will be in a public works field. Preference is given to female applicants and applicants returning to an educational institution from the workforce or applicants who have completed at least one year of study in their proposed field. Applications must be accompanied by a letter of reference from a BCPSA member.

Contact: Public Works Association of BC, Scholarship Committee, 16705 Fraser Highway, Surrey BC, V3S 2X7.

Gillis Purcell Memorial Journalism Scholarship for Native Canadians
Deadline: December 31
Terms of reference: The scholarship is in the amount of $4,000 annually for a native Canadian who is studying journalism at a Canadian institution. Contact: Norman Graham, Manager Employee Relations, The Canadian Press, 36 King Street East, Toronto ON, M5C 2L9; Tel: (416) 584-5133, Fax: (416) 364-9283.

Ross C. Purse Doctoral Fellowship – CNIB
Deadline: April 1
Terms of reference: The purpose of the fellowship is to encourage and support theoretical and practical research and studies at the graduate or doctoral level in the fields of blindness and visual impairment. Applications will be considered from persons studying at a Canadian university or college, or at a foreign university where a commitment to work in the field of blindness in Canada for at least two years can be demonstrated. Preference will be given to graduates of a Canadian university or college. Applicants will be expected to have achieved a high academic standing and to have exhibited superior intellectual ability and judgement.

Contact: The Secretariat, Ross C. Purse Doctoral Fellowship, Vice-President, Client Services and Technology, The Canadian National Institute for the Blind, 1500 Parkview Avenue, Toronto ON, M4G 3E8; Tel: (416) 486-2500, Fax: (416) 480-7677.
Web: www.cnib.ca

Queen Elizabeth Silver Jubilee Endowment Fund For Study in a Second Official Language Award Program
Deadline: March 1
Terms of reference: The purpose of the award is to encourage young Canadians who wish to improve their proficiency in their second official language to pursue studies, on a full-time basis, at another university which functions in the other official language and in a milieu in which that language predominates. All disciplines – except translation – are eligible. Students must continue studies in the discipline in which they are enrolled at their home university. Candidates must be Canadian citizens or permanent residents of Canada and must be currently enrolled in the second or third year of their first undergraduate university program. In addition, they must have sufficient ability in their second official language to pursue their studies in that language.

Contact: Canadian Awards Program, International and Canadian Programs Division, Association of Universities and Colleges of Canada (AUCC), 350 Albert St., Suite 600, Ottawa ON, K1R 1B1; Tel: (613) 563-1236, Fax: (613) 563-9745. Email: awards@auccc.ca
Web: www.auccc.ca

Queen Elizabeth II British Columbia Centennial Scholarship
Deadline: January 31
Terms of reference: One major scholarship with a total value of $30,000 is available each year. In addition to the major scholarship, two minor scholarships of $5,000 each are available for the two top runners-up to the major winner each year. The scholarship will be awarded each year on a competitive basis to a graduate:

• who has obtained an undergraduate degree from a British Columbia public post-secondary institution;
• whose domicile or ordinary residence is in the Province;
• who is a Canadian citizen or Permanent Resident (Landed Immigrant);
• who, in the opinion of the Advisory Committee, is a person of unusual worth and promise, and qualifies under the regulations; and
• who proposes to conduct the studies for which the scholarship is awarded at an institution in any British Commonwealth country, except Canada.

The advisory committee will make its recommendations on the basis of academic achievement, demonstrated aptitudes, personal qualities and character, as well as interest and participation in institutional and community affairs.

Contact: Student Services Branch, Special Programs, Ministry of Advanced Education, PO Box 9173, Stn. Prov Govt, Victoria BC, V8W 9H7, Tel: (250) 387-6116, Fax: (250) 356-5440.
Web: www.aved.gov.bc.ca/student/services/student/sp/awards.html

Rabin Scholarship for the Advancement of Peace and Tolerance
Deadline: February 15
Terms of reference: This scholarship is open to any doctoral or post doctoral student of Canadian birth in any faculty whose research interest could impact significantly on the advancement of peace and tolerance throughout the world. One Canadian student will be chosen to study with two Middle East candidates, one Jewish and one Arab, at the Truman Institute for the Advancement of Peace at the Hebrew University of Jerusalem. The application must include formal academic transcripts and at least two academic letters of reference, in addition to a letter of nomination from the Dean or Department Chair of the applicant’s university.

Contact: The Rabin Scholarship Committee, Office of Academic Affairs, Canadian Friends of the Hebrew University, 3080 Yonge Street, Suite 5024, Toronto ON, M4N 3N1; Tel: (416) 485-8000, Fax: (416) 485-8566. Email: inquiry@cfhu.org
Web: www.cfu.org

Research Support Opportunity in Arctic Environmental Studies – Canadian Northern Studies Trust
Deadline: January 31
Terms of reference: The Meteorological Service of Canada (a division of Environment Canada) sponsors a unique research support opportunity by providing accommodation, facilities, and services at the high Arctic Weather Station (HAWS) at Eureka on Ellesmere island, to graduate students enrolled in masters or doctoral studies at a Canadian university. Preference will be given to environmental research proposals in physical or biological sciences for which the location at Eureka is demonstrably advantageous. These opportunities are not confined to students engaged in weather-related studies.

Contact: Association of Canadian Universities for Northern Studies (ACUNS), 17 York Street, Suite 405, Ottawa ON, K1N 9J6; Tel: (613) 562-0515, Fax: (613) 562-0533. Email: acuns@cyberus.ca
Web: www.cyberus.ca/~acuns

Retail BC Scholarship Program
Deadline: March 31
Terms of reference: The purpose of the program is to recognize and encourage individuals who have shown an interest in pursuing a career in the retail industry. Applicants must be a resident of BC, currently working or have worked in the retail industry and applying for, or currently enrolled in, a retail training program or business-related post secondary program.

Contact: Retail Scholarship Program c/o Retail BC, 1758 West 8th Avenue, Vancouver BC, V6J 1V6. Email: inquiry@retailbc.org
Web: www.retailbc.org

Rhodes Scholarships
Deadline: September 15 (in Financial Assistance)
Terms of reference: Eleven scholarships are open for Canadian students and will be awarded annually. These scholarships are tenable at the University of Oxford, England. They are granted for two years, with the possibility of a third year. Scholars are required to go to Oxford in October of each year. Selection is...
made on the basis of school and college records without written examinations. The qualities which will be considered in making the selection are: literary and scholastic attainments; fondness and success in outdoor sports; a sense of truthfulness, courage, devotion to duty, sympathy for and protection of the weak, kindness, unselfishness, and fellowship; exhibition of moral force of character and of instincts to lead and take an interest in one’s contemporaries. Qualities of both character and intellect are the most important requirements for a Rhodes Scholarship; these are what the selection committees will seek. Financial need does not receive special consideration. Candidate must be: a Canadian citizen or a person domiciled in Canada; have been born between October 2, 1981 and October 1, 1987; and have received an undergraduate degree before taking up the scholarship.

Contact: Further information and application forms may be obtained from Financial Assistance or from the Office of the General Secretary for the Rhodes Scholarships in Canada, Suite 4700, Toronto-Dominion Centre, Toronto M5K 1E6 or from the Provincial Secretaries (Residents of Newfoundland) Contact S. Ann Colborne, FMD, The Rhodes Scholarship Trust, 154 Liamarchant Road, St. John’s NL, A1C 5B8, Tel: (709) 777-5219, (709) 777-5849.

Baxter and Alma Ricard Fondation Scholarship

Deadline: March 1

Terms of reference: The Fondation Ricard is offering scholarships to French-Canadian students to enable them to pursue a graduate or postgraduate education in any field of studies, at a recognized university of their choice in the world. Candidate must be at least 21 years old, a francophone Canadian living in a linguistic minority situation and distinguish themselves by their academic performance and personal qualities.

Contact: 226, rue Metcalfe, bureau 407, Ottawa ON, K2P 1P9, Tel: (613) 236-7065, 1-877-236-7065, Fax: (613) 236-3718.

Web: www.fondationricard.com

Rotary Foundation Ambassadorsial Scholarships

Deadline: June 1

Terms of reference: The Rotary Foundation offers three types of scholarships: the Academic-Year, the Multi-Year Scholarship and the Cultural Scholarship. The applicants must initially apply through local Rotary Clubs, not through the Foundation. The Foundation will offer scholarships every year, nor will all types of scholarships necessarily be available in a given year. Interested individuals should contact their local Rotary club to obtain application forms and inquire about the availability of scholarship types.

Contact: The Rotary Foundation of Rotary International, One Rotary Center, 1560 Sherman Avenue, Evanston IL, 60201 USA.

Web: www.rotary.org

Rotary Foundation Scholarships

Deadline: January 31

Terms of reference: Undergraduate scholarships, the newest educational activity of the Rotary Foundation, are awarded to outstanding young men and women for one academic year of undergraduate study abroad. A candidate for a scholarship must be unmarried; between the ages of 18 and 24 inclusive as of March 1st in the competition year; and have completed two years of undergraduate university level work, but not have attained the bachelor’s degree or equivalent at the time the student begins the scholarship year. The student must be a citizen of the country of residency and where the sponsoring Rotary Club is located. In this and all other programs of the Rotary Foundation, a Rotarian, a dependent of a Rotarian, a child, stepchild, grandchild, brother or sister of a Rotarian, or any spouse thereof, is ineligible for an award.

Contact: Application for an undergraduate scholarship must be made through a Rotary Club in the district in which the applicant’s permanent residence is located, or in the district in which is located the school at which he is studying at the time of his application. The sponsoring Rotary Club will provide the necessary application forms and explanatory literature.

Royal Canadian Golf Association Scholarships

Deadline: June 30

Terms of reference: The Canadian Golf Foundation encourages the athletic and academic careers of promising Canadian golfers and students of the industry by offering financial assistance through scholarships and awards. Several scholarships are offered to promising junior golfers, landscape architects and turfgrass agronomists. The scholarships assist students with the cost of tuition, books, residence and other related expenses. Each application must meet standard criteria in order to be reviewed by the scholarship committee, which then chooses the recipients based on merit.

Contact: RCGA Foundation, Suite 1, 1333 Dorval Road, Oakville ON, L6M 4X7, Tel: (905) 849-9700, Toll Free: 1-800-364-8909, Fax: (905) 849-7040.

Email: cgif@rcga.org

Web: www.rcga.com

The Paul Sargent Memorial Linguistics Scholarship Program

Deadline: March 14

Terms of reference: The Communications Security Establishment (CSE) is offering a recruitment scholarship program to candidates studying at the Master’s level. All applicants must be Canadian citizens and must hold a bachelor’s degree, with a major or minor in the language concerned and a high record of academic achievement. Applicants must have at least an intermediate level of competence in an Asian, Middle Eastern or Eastern European language (the minimum proficiency required would be a consistent A+ in language courses).

Contact: Canadian Awards Program, International and Canadian Programs Branch, Association of Universities and Colleges of Canada (AUCC), 600-350 Albert Street, Ottawa ON, K1R 1B1, Tel: (613) 563-1900, Fax: (613) 563-9745.

Email: awards@aucc.ca

Web: www.aucc.ca

Simon Fraser University Iranian Club Scholarship

Deadline: October 1

Terms of reference: A scholarship is available to a full time graduate or undergraduate student at Simon Fraser University. The award is made on the basis of academic merit (minimum of 3.5 CGPA for eligibility). Preference will be given to students who have demonstrated exceptional academic promise. The awards are renewable for each year of the program attended, provided that the recipient remains in good academic standing.

Contact: Submissions of application packages to iranian@sfu.ca.

Email: iranian@sfu.ca

Elvie Smith Memorial Fellowship For Studies in Canadian Aerospace

Deadline: January 31

Terms of reference: The scholarship is awarded to the student who best exemplifies the spirit of Canada’s aviation pioneers in seeking to enter the field of aviation, and who wishes to pursue studies in preparation for such a career. This scholarship will be awarded to a Canadian student wishing to pursue studies in engineering or a scientific discipline related to aerospace at the graduate or postgraduate level in preparation for a career in aerospace. Submissions are to be made in writing. Applicants may choose to submit a letter, essay, or other written presentation. Factors to be considered are knowledge of Canadian aviation history, the entrant’s own activities associated with aviation, interest in aerospace technology, plans for a career in aerospace, and an explanation of how the scholarship would be used.

Entries should not exceed 2000 words in length.

Contact: The Elvie Smith Memorial Scholarship Fund, c/o Canada’s Aviation Hall of Fame, PO Box 6360, Wetsaskiv, AB, T9A 2Z1, Tel: (780) 361-1351, Fax: (780) 361-1239.

Email: cahf@telusplanet.net

John J Schumacher Minority Leadership Scholarship Program – Southwestern University School of Law

Deadline: unknown

Terms of reference: Southwestern University School of Law offers approximately 25 scholarships each year through the John J. Schumacher minority Leadership Scholarship Program. These scholarships provide up to full tuition to members of the Southwestern entering class whose academic and leadership qualities are exceptional. The awards are renewable for each year of the program attended, provided that the recipient remains in good academic standing. Any prospective student who would like to apply for a Schumacher Scholarship should complete and return the Interest Form and proceed with the general admissions and financial aid application processes as outlined in the Southwestern catalogue.

Contact: Office of Admission, Southwestern University School of Law, 675 S. Westminster Avenue, Los Angeles, CA 90005, USA. Tel: (213) 738-6717.

Paul W. Wildman Scholarship Program – Southwestern University School of Law

Deadline: unknown

Terms of reference: Southwestern University School of Law offers approximately 25 scholarships each year through the Paul W. Wildman Scholarship Program. These scholarships provide up to full tuition to members of the Southwestern entering class who have demonstrated exceptional academic promise. The awards are renewable for each year of the program attended, provided that the recipient remains in good academic standing. Any prospective student who would like to apply for a Wildman Scholarship should complete and return the Interest Form and proceed with the general admissions and financial aid application processes as outlined in the Southwestern catalogue.

Contact: Office of Admission, Southwestern University School of Law, 675 S. Westminster Avenue, Los Angeles, CA 90005, USA. Tel: (213) 738-6717.

E.M. (Betty) Spalton Education Fund

Deadline: July 31

Terms of reference: The Betty Spalton Fund is geared at encouraging women enter the road construction industry and related fields. A scholarship will be given annually to a student entering or continuing studies leading to a career in road building, road maintenance or heavy construction. Preference will be given to students who are female and/or members of minority groups. Program of study may be either full-time or part-time at any BC college or university. Applications include a brief 2000 word essay explaining their interest obtaining an education in the field, a resume and transcripts from any secondary and post-secondary institutions attended.

Contact: Chair, Betty Spalton Educational Trust Fund, B.C. Road Builders and Heavy Construction Association, 307-8678 Greenall Avenue, Burnaby BC, V5J 3M6, Tel: (604) 436-0220, Fax: (604) 436-2627.

Email: info@roadbuilders.bc.ca

Web: www.roadbuilders.bc.ca
CNST Scholarships in Northern Studies – Canadian Northern Studies Trust
Deadline: January 31
Terms of reference: The Canadian Northern Trust offers one or two scholarships valued at $10,000 each, to students enrolled in a doctoral program at a Canadian University. Applications are invited from students who will (a) engage in research culminating in a thesis or other such document, (b) include direct northern field research or experience as part of their studies, and (c) whose programs are relevant to northern problems or issues. All subject area, including interdisciplinary studies will be considered as long as the research is conducted primarily in northern Canada.
Contact: Association of Canadian Universities for Northern Studies (ACUNS), 17 York Street, Suite 405, Ottawa ON, K1N 9J6, Tel: (613) 562-0515, Fax: (613) 562-0533.
Email: acuns@cyberus.ca
Web: www.cyberus.ca/~acuns

SWANA Scholarship for Studies in Solid Waste Management & Environmental Protection
Deadline: October 15
Terms of reference: The BC Chapter of the Solid Waste Association of North America is offering a number of $500 scholarships to encourage students studying in disciplines related to solid waste management and environmental protection and leading careers in these fields. Recipients of the scholarships will be determined by a panel of SWANA members and will be chosen on the basis of intended course of studies, academic performance, involvement in school and community activities, involvement in activities which is related to solid waste management or environmental protection, a brief written submission (500 words or less) and references. Applicants must be registered in a full course of studies in an environmental management or related program at a recognized post-secondary institution in British Columbia. They must have completed their first year of post-secondary studies. Contact: SWANA Scholarship c/o GVRD – Policy & Planning Department, 4330 Kingsway, Burnaby BC, V5H 4B8, Attention: Mike Stringer, Tel: (604) 436-8823, Fax: (604) 436-8811.
Web: www.ecowaste.com/swanabc

The Swedish Institute Guest Scholarship
Deadline: November 1
Terms of reference: This scholarship is offered to a qualified Canadian researcher or scholar of any age who wishes to undertake an academic year on a research undertaking at a Swedish university or an independent research facility. The competition for the scholarship is global. The value of the scholarship is approximately, SEK 6700 per month. Applicants should submit preliminary personal background information, particularly statements of purpose of study/ research and language competence, as well as a copy of letter of invitation from a Swedish University leading to a University degree.
Contact: Swedish Institute Scholarship Office, PO Box 7434, S-10391, Stockholm, Sweden.

Ted Trindell Memorial Scholarship
Deadline: January 8
Terms of reference: Five Awards of $1,000 are awarded to Metis or Non-Status persons from Northwest Territories attending full-time, post-secondary studies. Academic merit and financial need will be considered.
Contact: Chairman, Selection Committee, Ted Trindell Scholarship Fund, Box 375, Yellowknife NT, X1A 2P1, Tel: (403) 873-5505.

Trudeau Foundation Doctoral Scholarships
Deadline: January 11
Terms of reference: The Trudeau Foundation awards major scholarships to outstanding doctoral students in the social sciences and humanities. The Foundation supports three programmes: the Trudeau Fellows Programme, the Trudeau Scholars Programme and the Trudeau mentors Programme. Visit website for detailed information on application procedures.
Contact: The Pierre Elliot Trudeau Foundation, 1514 Doctor Penfield Avenue, 2nd Floor, Montreal, Quebec H3G 1B9, Tel: (514) 938-0001, Fax: (514) 938-0046. Email: tinfo@trudeaufoundation.ca

United Food and Commercial Workers Union, Local 1518, Scholarship
Deadline: June 5
Terms of reference: Ten scholarships of $1,000 each are offered to students beginning or continuing studies in a full academic program of studies at the University of BC, University of Victoria, Simon Fraser University, BC Institute of Technology or at a college in British Columbia. Candidates must be a member, or the son, daughter, or legal ward of a member of the Union in good standing and must give full details of their own or their parents’ membership in the Union.
Contact: Award #00547: Apply at University of British Columbia, Student Financial Assistance and Awards, Enrolment Services, 1036-1874 East Mall, Vancouver BC, V6T 1Z1, Tel: (604) 822-5111, Fax: (604) 822-6929.

University College London Scholarships
Deadline: January 31
Terms of reference: The University College London Scholarships are offered to students from overseas. All scholarships are competitive and depend upon academic merit, and are tenable for the duration of the programme of study. To be eligible for any of the scholarships, applicants should: hold an offer of admission to a full-time program of study at University College London, be self-financing and liable to pay tuition fees at the rate for overseas students. These scholarships are not available to students already on a degree programme, or to students intending to pursue their studies at an institution other than UCL. These scholarships are available to students interested in graduate and undergraduate studies.
Contact: International Office, University College London, Gower Street, London, England WC1E 6BT, Tel: +44 171 380 7708, Fax: +44 171 380 7380. Email: international@ucl.ac.uk
Web: www.ucl.ac.uk/scholarships

Vancouver Police Department Scholarships
Deadline: July 31
Terms of reference: To encourage and assist sons and daughters of members of the Vancouver Police Department to attend the post-secondary educational institutes: University of British Columbia, Simon Fraser University, BCIT or any regional college in BC. In selecting the winners, academic standing, financial circumstances and services to the community may be considered.
Contact: Enrolment Services, 1036-1874 East Mall, Vancouver BC, V6H 4E4, Tel: (604) 822-6929.
Web: www.vpd.com/scholarships

Cultural Centre Society Scholarship
Deadline: August 31
Terms of reference: A scholarship in the name of Gerald Donato Vertone has been set up by the Italian Cultural Centre Society. Gerald Donato Vertone has been set up by the Italian Cultural Centre Society and is open to any student who is accepted to, or attends a post secondary institution leading to a university degree. To qualify, applicants must:
• be of Italian origin
• attend, or be accepted at a University or Community College leading to a University degree.
• send an application letter detailing your reasons for applying, along with one letter of reference.
Contact: Italian Cultural Centre Society, Gerald Donato Vertone Scholarship, 3075 Slocan Street, Vancouver BC, V5M 3E4, Tel: 430-3337, Fax: 430-3331.
Web: iccs.bc.ca

Village Credit Union Scholarship Program
Deadline: April 14
Terms of reference: One scholarship is available to those students who are presently enrolled full-time at a college or university and are planning to attend another year of studies, and who are members or the children and/or grandchildren of members of the Village Credit Union. Candidates will be selected on the basis of a completed Village Credit Union scholarship application form, a copy of the most recent official transcript, two letters of references (at least one from an instructor or faculty member) and a 200 word essay “Why I should be chosen as a winner of a scholarship from Village Credit Union”. Proof of enrolment will be required prior to payment of scholarship.
Contact: Village Credit Union, 1013 Brunette Avenue, Coquitlam BC, V3K 1E6, Tel: (604) 525-3331, Fax: (604) 525-0146.
Web: www.villagecu.com

Bridget Walsh Scholarship for Single Parent
Deadline: October 15
Terms of reference: The Bridget Walsh scholarship was created from the royalties of Sheelagh Conway’s book The Faraway Hills are Green; Voices of Irish Women in Canada published in October 1992 by Women’s Press. In recognition of the 22 Irish women from across Canada whose stories are told in this book, Sheelagh Conway has donated half of the royalties to low-income, single-parent Irish women in Canada who wish to pursue their education at university or college level. The scholarship will be awarded on the basis of academic merit or promise as well as economic need. The value of the scholarship is $400 to a graduate student studying in the province of BC whose field of study encompasses the macro fungi. Interested candidates must submit a one-page summary describing their research project; in addition, the candidates must indicate willingness to give a presentation on their research to the Vancouver Mycological Society at one of the regular meetings.
Contact: Vancouver Mycological Society, 101-1001 West Broadway, Box 181, Vancouver BC, V6H 4E4, Tel: (604) 988-9390 or (604) 322-0074.
Undergraduate

97 Financial Assistance and Awards – Externally Administered Programs

scholarship will vary from year to year depending on royalties. Contact: Mary Broderick, Chairperson, Bridget Walsh Scholarship, 205 Mountainview Road North, Georgetown ON, L7G 4T8, Tel: (416) 873-0873.

Welch Foundation Scholarship Deadline: April 15
Terms of reference: A scholarship is offered to a promising scholar who wishes to study vacuum science, techniques or their application in any field. Candidates for the scholarship should have at least a bachelor’s degree; a doctoral degree is preferred. Contact: Dr. F.R. Shepherd, Nortel Networks, Dept. C115, 3500 Carling Avenue, Nepean ON, K2H 8E9, Tel: (613)763-3285, Fax: (613) 763-2404. Email: frsim@sro.nortelnetworks.com.

Xerox Aboriginal Scholarships Program Deadline: June 15
Terms of reference: Applicants must be a Canadian citizen and resident; status or non-status Indian, Metis or Inuit; full-time student at Canadian post-secondary institution with significant content in information technology. This includes but is not restricted to such disciplines as computer/math sciences, business administration or commerce and engineering. Applications must include a transcript, proof of admission to an accredited post-secondary institution, two letters of reference and a letter describing of the applicant’s program of study, interest in information technology, involvement in activities at school or in community and use of information technology at home, work or school. Contact: Xerox Canada Ltd., External Affairs Office, Contributions Administer, Corporate Affairs, Xerox Canada, 5650 Yonge Street, North York ON, M2M 4G7, Tel: (416) 733-6837, Fax: (416) 733-6811. Email: chiara.lam@can.xerox.com. Web: www.xerox.ca/corp_aff/english/tlt.html.

Yukon Foundation Deadline: May 1
Terms of reference: Any Yukon resident can apply for funding from the Foundation. Contact: Yukon Foundation, P.O. Box 32096, Whitehorse, Yukon Y1A 8P6, Tel: (867) 393-2454.

Zajac Scholarship – BC Centre For Ability Deadline: September 1
Terms of reference: The Zajac Scholarship is awarded annually to an individual with a disability that is attending or planning to attend post secondary education. Applicant must be a Canadian citizen or resident; have a physical, neurological and/or developmental disability; attend post secondary (credited courses leading to a degree, diploma or certificate) or a structured vocational program; demonstrate social interests, such as participation in volunteer work or leadership in community activities and demonstrate the philosophy and values of the BC Centre for Ability. Contact: Zajac Scholarship Committee, c/o The BC Centre for Ability, 2805 Kingsway, Vancouver BC, V5R 5H9, Tel: (604) 451-5511, Fax: (604) 451-5561. Email: home@centreforability.bc.ca. Web: www.centreforability.bc.ca.

External Scholarships for Applied Sciences Students

Jim Allard Broadcast Journalism Scholarship – Canadian Association of Broadcasters Deadline: June 30
Terms of reference: Aspiring broadcasters enrolled in a broadcast journalism course at a Canadian college or university are eligible to apply for the $2,500 scholarship. To qualify, simply explain on a separate piece of paper, in about 500 words, why you’re interested in broadcast journalism, what your career goal is and how this scholarship can help you attain that goal. Complete the application and send it, with your 500-word outline and a signed recommendation from your course director, to the Canadian Association of Broadcasters (CAB). The judging committee also will look for evidence of strong character and leadership qualities; a willingness to assist others in the industry; genuine enthusiasm for a career in Canadian broadcasting, as reflected in activities related to broadcasting, such as home studies, part-time employment, etc. Contact: Jim Allard Scholarship, c/o The Canadian Association of Broadcasters, PO Box 627, Station B, Ottawa ON, K1P 5S2. Web: www.cab-acr.ca.

The BBM Scholarship (Bureau of Broadcast Measurement) – Canadian Association of Broadcasters Deadline: June 30
Terms of reference: Applicants must be enrolled in a graduate studies program, or be in the final year of an Honours degree with the intention of entering a graduate program, anywhere in Canada. Applicants must submit a 250-word essay, outlining his/her interest in audience research. The applicant may also submit a copy of any course project or paper on research he/she has previously completed. The applicant should outline the requirements of the program, three references/recommendations from appropriate sources. One should be from his/her course director or advisor. Contact: BBM Scholarship, The Canadian Association of Broadcasters, PO Box 627, Station B, Ottawa ON, K1P 5S2. Web: www.cab-acr.ca.

Canadian Engineering Memorial Foundation Scholarships Deadline: January 23
Terms of reference: The CEMF offers a $5000 Undergraduate Engineering Scholarships to young women who are proven leaders and active in their community to encourage them to pursue a career in engineering. Applicants must be enrolled full-time in an accredited Canadian undergraduate engineering program of study and be in their first year, second year or the first term of their third year. Scholarships are based primarily on demonstrated community leadership and involvement in extracurricular activities. Special emphasis is placed on leadership to recognize and encourage continued contributions to Canadian society. Work experience may also be considered in awarding scholarships. Applicants must be willing to act as role models and promote engineering to young girls. Each scholarship winner will be required to make a presentation to at least one pre-university audience. Application forms and details on applying can be found at www.cemf.ca. Contact: The Canadian Engineering Memorial Foundation, Undergraduate Scholarship Award, P.O. Box 370, Renfrew ON, K7V 4A6, Tel: 1-866-883-2363.

Canadian Engineering Memorial Foundation Scholarship Award, P.O. Box 370, Renfrew ON, K7V 4A6, Tel: 1-866-883-2363. Email: info@cemf.ca Web: www.cemf.ca.

Canadian Society for Chemical Engineers – SNC LAVALIN Plant Design Competition Deadline: May 15
Terms of reference: The Canadian Society for Chemical Engineering offers the SNC LAVALIN Undergraduate Plant Design Competition for students enrolled in undergraduate chemical engineering programs at Canadian universities. Eligibility: Individuals and groups of undergraduate students registered in chemical engineering programs in Canadian universities. Prize: The group of students with the best design will be awarded a CAD package valued at $10,000. The winning team will receive a $500 CAD package. Contact: Canadian Society for Chemical Engineering, #550-130 Slater Street, Ottawa ON, K1P 6E2, Tel: (613) 232-6252, Fax: (613) 232-5852. Email: cicadm@fox.nstn.ca Web: www.fox.nstn.ca.

Canadian Society for Chemical Engineers – Edmonton Chemical Engineering Scholarship Deadline: April 30
Terms of reference: The Canadian Society for Chemical Engineering offers the Edmonton Chemical Engineering Scholarship to undergraduate students in chemical engineering entering the second, third, fourth, or fifth (in a five year program) year of studies at a Canadian university, for leadership qualities and demonstrated contributions to the Canadian Society for Chemical Engineering via participation in student chapters, and for above-average academic performance. Applicants must be members of the Canadian Society for Chemical Engineering. Application: A letter of application should be submitted to Diane Goltz, Program Manager. The application should document connections to the...
Canadian Society for Chemical Engineering – Sarnia Chemical Engineering Community Scholarship
Deadline: April 30
Terms of reference: The Canadian Society for Chemical Engineering offers the Sarnia Chemical Engineering Community Scholarship to undergraduate students in chemical engineering about to enter the final year of studies at a Canadian university, and will be made for academic excellence and demonstrated contributions to the Canadian Society for Chemical Engineering, such as participation in student chapters. Applicants must be members of the Canadian Society for Chemical Engineering. Application: Application for the award should be submitted to Diane Goltz, Program Manager. Applications should contain evidence of academic standing, letters of reference and evidence of contributions to the Society.
Contact: Canadian Society for Chemical Engineers, #550-130 Slater Street, Ottawa ON, K1P 6E2, Tel: (613) 232-6252, Fax: (613) 232-5862. Email: cic_adm@fox.nstn.ca
Web: www.fox.nstn.ca

Canadian Space Agency Spaceflight and Life Sciences Training Program Scholarship
Deadline: January 31
Terms of reference: The Canadian Space Agency will sponsor one or two Canadian student(s) to participate in the NASA Spaceflight and Life Sciences Training Program (SLSTP), a six-week, summer research program at the Kennedy Space Center (KSC) in Florida. The program will allow students to participate in the preparation, pre- and postflight testing, data analysis and report preparation phases of simulated spaceflight experiments and life sciences research.
The CSA's Space Life Sciences Program will sponsor student(s) who have demonstrated scholastic excellence and an interest in space life sciences to participate in this unique learning experience. Eligibility requirements and application materials are available on website.
Contact: SLSTP Canadian Space Agency, Space Science Program, 6767 route de l'aéroport, Saint-Hubert (Québec), J7V 9Y9.
Email: slstp@space.gc.ca
Web: www.space.gc.ca/slstp

CARB Sales & Marketing Award – Canadian Association of Broadcasters
Deadline: June 30
Terms of reference: Applicant must be a student enrolled in the final, or next to final year of an accredited Canadian university, college, post-secondary or technical school with the intention of entering a business graduate program and/or the broadcast industry in a sales, marketing, or promotion capacity. Applicant must submit a minimum 300-word essay authoring his/her interest in the understanding of the sales and marketing role in radio, TV and specialty TV. Also a case study that details an actual Canadian media need and success story based on the exclusive use of one or more of the above media, or; a hypothetical product launch using the aforementioned. The application must include three reference recommendations from appropriate sources. One should be from his/her course director or advisor.
Contact: The CABR Sales & Marketing Award, The Canadian Association of Broadcasters, PO Box 627, Station B, Ottawa ON, K1P 5S2.

CCPE – Manulife Financial National Scholarships
Deadline: April 1
Terms of reference: Three CCPE-Manulife Financial Scholarships valued at $10,000 each to provide financial assistance to engineers returning to university for further study or research in an engineering field. Candidates must be accepted or registered in a faculty of engineering. To be eligible, candidates must be licensed to practice engineering and be registered as full members of one of the provincial/territorial professional association/order in their province/territory.
Contact: CCPE National Scholarship Program, Canadian Council of Professional Engineers, 1100-180 Elgin Street, Ottawa ON, K2P 3K3, Tel: (613) 232-2474, Fax: (613) 230-5759.
Email: member.services@ccpe.ca
Web: www.ccpe.ca

CCPE – Meloche Monnex Scholarship
Deadline: March 1
Terms of reference: Two CCPE-Meloche Monnex Scholarships of $7,500 each to support engineers returning to university for further study or research in a field other than engineering. Candidates must be accepted or registered in a faculty other than Engineering. The field of study chosen should favour the acquisition of knowledge which enhances performance in the engineering profession. To be eligible, candidates must be licensed to practice engineering and be registered as full members of one of the provincial/territorial professional association/order in their province/territory.
Contact: CCPE National Scholarship Program, Canadian Council of Professional Engineers, 1100-180 Elgin Street, Ottawa ON, K2P 3K3, Tel: (613) 232-2474, Fax: (613) 230-5759.
Email: member.services@ccpe.ca
Web: www.ccpe.ca

Electro-Federation Canada (EFC) Foundation Scholarship Program
Deadline: July 31
Terms of reference: Scholarships are available to Engineering Science, Computer Science and Business Administration students who have completed their first year of study and have maintained a minimum B grade average in the previous year of their engineering program. Candidates must have graduated from a high school on Vancouver Island and must have achieved a minimum B grade average in the previous year of their engineering program. Applicants must be Canadian citizens or landed immigrants. The awards are renewable for a maximum total tenure of three consecutive years. This is a merit scholarship open to qualified full-time engineering students entering the second year of their program and who will graduate within the next two or three years. Candidates must be Canadian citizens or permanent residents who have completed a full first year program in a Canadian faculty of engineering and who intend to continue their studies in engineering. Candidates must have attained a first class standing as defined by the nominating institution. Applications are by nomination only.
Contact: Canadian Awards Program, Association of Universities and Colleges of Canada (AUCC), 600-350 Albert St., Ottawa ON, K1R 1B1, Tel: (613) 563-1236, Fax: (613) 563-9745.
Email: awards@aucc.ca
Web: www.aucc.ca

The Engineering Institute of Canada, Vancouver Island Branch Scholarships
Deadline: July 31
Terms of reference: Awards are offered to qualified students entering the second year of an accredited engineering program and to students transferring from a bridging program at a technical institute into either second year or third year in an accredited engineering program. Applicants must have graduated from a high school on Vancouver Island and must have achieved a minimum B grade average in the previous year of their engineering program. Applicants must be Canadian citizens or landed immigrants. The awards are granted on the basis of academic standing, financial need and other considerations such as disability or special circumstances. Candidates must submit an application form, a transcript and a letter of assessment from the department head or dean.
Contact: Engineering Institute of Canada, Vancouver Island Branch, PO Box 41013, Victoria BC, V8Y 3C9, Tel: (250) 477-8031 or (250) 388-8161.
Email: mgalbrath@pinc.com
Web: www.eic.ca

Ruth Hancock Scholarships – Canadian Association of Broadcasters
Deadline: June 30
Terms of reference: To qualify, you must complete the application, include a 500-word outline explaining why you're taking a communications course, your career goal, and how the scholarships will help you and a signed recommendation from your course director. Applicants are expected to demonstrate strong character and leadership qualities; a willingness to assist others in the industry; genuine interest in pursuing a broadcasting career, as reflected in extra-curricular activities related to broadcasting and/or self-initiated undertakings.
Contact: Ruth Hancock Memorial Scholarships, The Canadian Association of Broadcasters, PO Box 627, Station B, Ottawa ON, K1P 5S2.
Web: www.cab-acr.ca

C.D. Howe Memorial Foundation Engineering Awards Program
Deadline: July 2
Terms of reference: The C.D. Howe Memorial Foundation is pleased to grant scholarships to students enrolled in an engineering program in a Canadian university. Two scholarships of $6,000 each will be awarded each year. One award will be offered to a male and one to a female student. The awards are renewable for a total maximum tenure of three consecutive years. This is a merit scholarship open to qualified full-time engineering students entering the second year of their program and who will graduate within the next two or three years. Candidates must be Canadian citizens or permanent residents who have completed a full first year program in a Canadian faculty of engineering and who intend to continue their studies in engineering. Candidates must have attained a first class standing as defined by the nominating institution. Applications are by nomination only.
Contact: Canadian Awards Program, Association of Universities and Colleges of Canada (AUCC), 600-350 Albert St., Ottawa ON, K1R 1B1, Tel: (613) 563-1236, Fax: (613) 563-9745.
Email: awards@aucc.ca
Web: www.aucc.ca

The Frederick T. Metcalfe Award Program (Canadian Cable Television Association)
Deadline: March 28
Terms of reference: This scholarship is open to qualified full-time students pursuing graduate level studies in disciplines related to new media companies and delivering cable communications services in Canada: business (finance and marketing), economics, television production, mass communications, engineering. Candidates must be Canadian citizens or permanent residents.
Contact: Canadian Awards Program, Association of Universities and Colleges of Canada (AUCC), 350 Albert St., Suite 600, Ottawa ON, K1R 1B1, Tel: (613) 563-1236, Fax: (613) 563-9745.
Email: awards@aucc.ca
Web: www.aucc.ca

David Squires Foundation Scholarship
Deadline: October 31
Terms of reference: The Squires Foundation provides two scholarships to students in an information technology program who demonstrate significant financial need and maintain a high level of scholastic achievement. The winners will have to provide a transcript of marks for the most recent completed academic semesters, proof of registration in applicable courses for this year and two personal references. Apply on website (www.itslb.com).
Contact: Squire Foundation, Tel: (250) 595-8282 Fax: (250) 595-8088.
Email: johns@itslb.com
Web: www.itslb.com
Telesat Canada Satellite Engineering Scholarship
Deadline: July 2
Terms of reference: Telesat Canada has established a scholarship to benefit students pursuing studies in engineering related to satellite communications.
Candidates must be Canadian citizens or permanent residents of Canada and be enrolled or planning to enrol in an undergraduate or graduate degree program at any Canadian university, and must intend to use the scholarship to assist them in completing studies in the fields related to satellite engineering. Applicants must have obtained a minimum academic standing of 70% or equivalent in their last two years of study or submit their most recent transcripts. As well applicants should submit a personal statement (500-750 words) about themselves including but not limited to: areas of study, interests and views about satellite applications. The applicants' personal statement is an important reflection of their interest in satellite communications.
Contact: Canadian Awards Program, Association of Universities and Colleges of Canada (AUCC), 350 Albert St., Suite 600, Ottawa ON, K1R 1B1, Tel: (613) 563-1263, Fax: (613) 563-3745. Email: awards@aucc.ca
Web: www.aucc.ca

The Wood Scholarship Fund – The Women’s Association of the Mining Industry of Canada, Toronto
Deadline: June 15
Terms of reference: The Wood Scholarships shall be awarded to students with financial need for tuition fees and books at a duly qualified school of mining in Canada in the amount of $6,000. These scholarships are for well-rounded students with a “B” or better average pursuing careers in the Mining Industry. The scholarship is available for undergraduate studies and can be renewed up to four years providing the scholar maintains good academic standing and the need prevails.
Contact: The Women’s Association of the Mining Industry of Canada, Toronto, The Wood Scholarship Fund, PO Box 207 Postal Station A, Toronto ON, M5W 1B2.

External Scholarships for Arts and Social Sciences Students
Jim Allard Broadcast Journalism Scholarship – Canadian Association of Broadcasters
Deadline: June 30
Terms of reference: Aspiring broadcasters enrolled in a broadcast journalism course at a Canadian college or university are eligible to apply for the $2,500 scholarship. To qualify, simply explain on a separate piece of paper, in about 500 words, why you’re interested in broadcast journalism, what your career goal is, and how this scholarship can help you attain that goal. Complete the application and send it, with your 500-word outline and a signed recommendation from your course director, to the Canadian Association of Broadcasters (CAB). The judging committee will also look for evidence of strong character and leadership qualities; a willingness to assist others in the industry; genuine enthusiasm for a career in Canadian broadcasting, as reflected in activities related to broadcasting, such as home studies, part-time employment, etc.
Contact: Jim Allard Scholarship, The Canadian Association of Broadcasters, PO Box 627, Station B, Ottawa ON, K1P 5Z2. Web: www.cab-acb.ca

Association of Moving Image Archivists Scholarship
Deadline: May 15
Terms of reference: Five scholarships, Mary Pickford Scholarship, Sony Pictures Scholarship, CFI Sid Solow Scholarship, Rick Chace Foundation Scholarship and the Universal Studios Preservation Scholarship, will be given as financial assistance to students of merit who intend to pursue careers in the profession of moving image archiving. The applicant must be enrolled in a graduate-level or other advanced program in film or television studies or production, library or information services, archival administration, museum studies or a related discipline; or must be accepted into such a program for the next academic year. Applicants need only submit one application form and one set of supporting documents to be eligible for all awards.
Contact: AMIA, 1313 North Vine Street, Hollywood, CA 90028, Tel: (323) 463-1500 Fax: (323) 463-1506. Email: amia@amianet.org
Web: www.amianet.org

BC Arts Council Scholarship Awards
Deadline: May 31
Terms of reference: Candidates must be a Canadian citizen or landed immigrant and a BC resident, and have attained first class standing in theatre, dance, music, film and video, creative writing, arts administration, museological and conservation studies, or visual arts programs.
Contact: Julie Poskitt, Coordinator, Scholarship Awards Program, BC Arts Council, 800 John Street, 5th floor, PO Box 9819, Stn Prov Govt, Victoria BC, V8W 9W3, Tel: (250) 356-1724, Fax: (250) 387-4099.

BC Historical Federation Scholarship
Deadline: May 15
Terms of reference: The British Columbia Historical Federation awards a $500 scholarship annually to a student completing the third or fourth year at a British Columbia college or university. To apply for the scholarship, candidates must submit: 1) a letter of application; 2) an essay of 1,500-2,000 words on a topic relating to the history of British Columbia. The winning essay will be published in BC Historical News; 3) letters of recommendation from two professors.
Contact: Frances Gundy, 255 Niagara Street, Victoria BC, V8V 1G4, Tel: (250) 387-3622.

The Brucebo Fine Art Summer Scholarship
Deadline: January 31
Terms of reference: The grant finances a two-month study stay at Brucebo on the island of Gotland, Sweden. It includes free use of the fully furnished studio cottage, a two-month food stipend and a generous transport allowance. The grant must be used within the period June 10-August 20. This grant is sponsored by the Gotland Konstmuseum (Gotland Museum of Fine Arts).
Contact: CSF Secretary, Dr. Jan O. Lundgren, Department of Geography, McGill University, 805 Sherbrooke W St., Montreal QC, H3A 2K6, Tel: (514) 398-4304, Fax: (514) 398-7437. Email: lundgren@felix.geog.mcgill.ca

Burnaby Historical Society Scholarship
Deadline: June 15
Terms of reference: This scholarship is given by Drs. Violet and Blythe Eagles, in honor of Evelyn Salisbury. The applicant for the scholarship should be an undergraduate attending an accredited British Columbia university or college and enrolled in a major or honors program that specializes in Canadian history, with preference given to the history of British Columbia. Candidates must apply in writing, outlining their studies to date, providing an essay or an example of research done and including a current academic transcript and letters of recommendation from two professors at the university or college the candidate is attending.
Contact: Burnaby Historical Society, Scholarship Committee, c/o Burnaby Village Museum, 6501 Deer Lake Avenue, Burnaby BC, V5G 3T6, Tel: (604) 293-6500, Fax: (604) 293-6525.

F.J. Connell Music Scholarship Trust
Deadline: October 1
Terms of reference: The F.J. Connell Music Scholarship Trust is a charitable organization whose sole purpose is to provide (in perpetuity) an annual scholarship to university music students; winners are eligible to reapply in a subsequent year. Eligibility:
• Undergraduate or graduate student at a recognized university.
• Full-time or part-time studies.
• Successful completion of the equivalent of one year of full-time studies in music.
• Currently majoring in music (performance, education, composition, history, etc.) and planning a professional career in music.
• Preference given to students who, through academic performance, extra-curricular activities, and community involvement, best illustrate the values which F.J. Connell taught through the gift of music (e.g. co-operation, honesty, work ethic, responsibility, teamwork, dedication, commitment, patience, goal setting).
Application must include a curriculum vitae, an essay (not more than 500 words) which indicates your extra-curricular activities and community involvement, one academic and one character reference (sent directly from the referee) and an official transcript of grades (sent directly from the Registrar).
Contact: F.J. Connell Music Scholarship Trust, 1187, Simcoe Street, Moose Jaw SK, S6H 1J5, Tel: (306) 694-2045.

Government Finance Officers Association – Minorities in Government Finance Scholarship
Deadline: March 1
Terms of reference: The GFOA’s Minorities in Government Finance Scholarship of $5,000 will be awarded to an upper‐division undergraduate or graduate student of public administration, (governmental) accounting, finance, political science, economics, or business administration (with a specific focus on government or nonprofit management). The candidate must belong to one of the following groups: Black, Indian, Eskimo or Aleut, Asian or Pacific Islander, Hispanic. Must be a citizen or permanent resident of the US or Canada. Recommendation by the student’s academic advisor, department chair or dean is required.
Contact: Scholarship Committee, Government Finance Officers Association, 203 North LaSalle Street, Suite 2700, Chicago IL, 60601-1210, Tel: (312) 977-9700. Web: www.gfoa.org

Leo J. Krysa Family Undergraduate Scholarship in Education, History, Humanities, Social Sciences
Deadline: March 1
Terms of reference: The Leo J. Krysa family undergraduate scholarship is awarded annually to a student in the faculty of Arts or Education entering the final year of study in pursuit of an undergraduate degree. Applicants’ programs must emphasize Ukrainian and/or Ukrainian-Canadian studies, through a combination of Ukrainian and East European or Canadian courses in one of the following areas: education, history, humanities and social sciences. The scholarship is for a one-month period of study at any Canadian university. Candidates must be Canadian citizens or permanent residents of Canada at the time of application.
Contact: Canadian Institute of Ukrainian Studies, 352 Athabasca Hall, University of Alberta, Edmonton AB, T6G 2E8. Email: cius@gpo.srv.ualberta.ca Web: www.cius.ca

Robert Markle Scholarship
Deadline: November 30
Terms of reference: Award of $1,200 amount given to a First Nations student of a visual arts program at a
post-secondary institution. Application must include a resume stating personal background and heritage; selection of colour slides and/or black and white photographs or a small portfolio of recent work; letter of recommendation from instructor. All entries will be returned to the sender.

Contact: Robert Markle Fund, c/o Woodland Cultural Centre, 184 Mohawk St., PO Box 1506, Brantford ON, N3T 5V6.

New Brunswick Arts Scholarships
Deadline: January 31
Terms of reference: The Arts Scholarships program provides awards to New Brunswick students and arts professionals who are pursuing full-time or short-term studies for the purpose of becoming an arts professional or pursuing a career as an arts professional. The program is designed to recognize and encourage those who have already completed some basic training and who have demonstrated exceptional potential and talent as artists. The applicant should intend to study creative writing, music, theatre, dance, film/video, visual arts/photography, or craft at a recognized institution or with a recognized private instructor for the purpose of pursuing a career as a professional artist or in an arts related capacity. Applicant must submit a typed copy.

Contact: Arts Development Branch, Department of Economic Development, Tourism and Culture, PO Box 6000, Fredericton NB, E3B 5H1, Tel: (506) 453-2555.

Community Arts Council of Richmond Scholarships
Deadline: March 31
Terms of reference: The purpose of the scholarships is to assist in the educational costs of Richmond residents to attend recognized post secondary or advanced programs of study in the arts. Scholarships will be awarded for specific programs or courses of study within the discipline of visual arts, drama/theatre, creative writing, dance and music. Applicant must be a resident of Richmond for a minimum of one year and must not be less than seventeen years of age. Each application must be accompanied by two letters of recommendation, a personal resume outlining personal and immediate objectives and ultimate goals in field of study and copy of application form and/or letter of acceptance from program, indicating tuition fees and other related costs. Applicant must be prepared to audition for jury evaluation by scholarship committee. Visual arts’ applicant to submit portfolio. Creative writing applicant to submit sample copy.

Contact: The Community Arts Council of Richmond, #180-7700 Minoru Gate, Richmond BC, V6Y 1R9, Tel: (604) 231-6429.

Don Smith Scholarship Fund (BCTV)
Deadline: May 1
Terms of reference: In recognition of Don Smith’s long-term contributions to the broadcasting industry. BCTV has established a trust fund in his name that will provide scholarships to a maximum of $2,500 per year for up to four students enrolled in a recognized broadcasting communications program, or a university program with an emphasis on broadcast journalism. These scholarships are intended to encourage entrance to a career in broadcasting to members of groups who are currently underrepresented in the broadcasting industry. These groups are First Nations peoples, persons with disabilities, visible minorities and women. The applicant must be a member of one of the underrepresented groups, be a permanent resident of British Columbia, have a high level of commitment to a career in broadcasting; have demonstrated ability to work well with others; have excellent written and verbal communication skills. Selection will be based on evidence of a balanced lifestyle, including leadership ability and a record of community service. Academic achievement and financial need will also be considered. A letter of application, accompanied by a resume, current scholastic record, and two personal letters of reference must be submitted.

Contact: Scholarship Selection Committee, BCTV, A Division of WIC Television Ltd., P.O. Box 4700, Vancouver BC, V6B 4A3.

External Scholarships for Business Administration Students
Ellen Bell YMCA Memorial Scholarship
Deadline: February 14
Terms of reference: Awarded to a student pursuing a career in marketing and advertising. Ellen Bell will be remembered for the boundless energy, intelligence, kindness and willingness to commit herself to the betterment of the community. The scholarship will be granted to an individual or individuals who demonstrates these qualities. Applications must be in writing, giving full particulars together with the reason for applying (in 500 words or less) along with letters of reference.

Contact: Ellen Bell YMCA Memorial Scholarship Committee, YMCA Association Services, #500-1188 West Georgia Street, Vancouver BC, V6E 3Z3, Tel: (604) 881-9622, Fax: (604) 688-0220.

CABR Sales & Marketing Award – Canadian Association of Broadcasters
Deadline: June 30
Terms of reference: Applicant must be a student enrolled in the final, or next to final year of an accredited Canadian university, college, post-secondary or technical school with the intention of entering a business graduate program and/or the broadcast industry in a sales, marketing, or promotion capacity. Applicant must submit a minimum 300-word essay authoring his/her interest in the understanding of the sales and marketing role in radio, TV and specialty TV. Also a case study that details an actual Canadian marketing success story based on the exclusive use of one or more of the above media, or; a hypothetical product launch using the aforementioned. The application must include three references/recommendations from appropriate sources. One should be from his/her course director or advisor.

Contact: The CABR Sales & Marketing Award, The Canadian Association of Broadcasters, PO Box 627, Station B, Ottawa ON, K1P 5S2.

Certified Management Accountants Society of British Columbia Scholarships
Deadline: April 30
Terms of reference: The WC Easton Scholarship will be awarded to the student with the highest final mark in Seminar in Administrative Policy BUS 478 in each year May 1 to April 30 that applies for the award. The BC Management Accounting Scholarship will be awarded to the student with the highest final mark in Managerial Accounting II BUS 424 in each year May 1 to April 30 that applies for the award. The $1500 scholarship will be credited toward tuition fees when the recipient enrols in the Certified Management Accountant program in BC. To apply for these scholarships, please make formal application to the Financial Assistance Office where the application will be reviewed and a recommendation made to the Certified General Accountants Association.

Contact: Certified General Accountants Association of British Columbia, 180 – 1867 West Broadway, Vancouver BC, V6J 5L4, Tel: (604) 732-1211, Fax: (604) 732-9439.

Email: info@cga-bc.org
Web: www.cga-bc.org

Community Futures Development Corporation of Alberni-Clayoquot Business Studies Scholarship
Deadline: June 15
Terms of reference: The Community Futures Development Corporation of Alberni-Clayoquot (CFDC of AC) is pleased to offer a $1000 Business Studies Scholarship. Eligible applicants must have been Alberni-Clayoquot residents, entering a second year or subsequent year of business studies. Application must include a copy of previous year’s transcript, a resume and a 200-word essay stating long-term career objectives.

Contact: Community Futures Development Corporation of Alberni-Clayoquot, Attention: Lori Camire, 4757 Tebo Avenue, Port Alberni, BC, V9Y 8A9, Tel: (250) 724-1241, Fax: (250) 724-1028, Toll Free: 1-877-724-1241.

Email: info@afdcac.ca
Web: www.cfdcac.ca

Electro-Federation Canada (EFC) Foundation Scholarship Program
Deadline: July 31
Terms of reference: Scholarships are available to Engineering Science, Computer Science and Business Administration students who have completed their first year of study and have maintained a minimum 70% standing at a recognized Canadian education institution. Visit website for details and information.

Contact: Visit www.electrofed.com.
Email: scholarship@electrofed.com
Web: www.electrofed.com

Government Finance Officers Association – Minorities in Government Finance Scholarship
Deadline: March 1

Email: scholarship@efofac.com
Web: www.efofac.com
Undergraduate

101 Financial Assistance and Awards – Externally Administered Programs

Terms of reference: The GFOA’s Minorities in Government Finance Scholarship of $5,000 will be awarded to an upper-division undergraduate or graduate student of public administration, (governmental) accounting, finance, political science, economics, or business administration (with a specific focus on government or nonprofit management). The candidate must belong to one of the following groups: Black, Indian, Eskimo or Aleut, Asian or Pacific Islander, Hispanic. Must be a citizen or permanent resident of the US or Canada. Recommendation by the student’s academic advisor, department chair or dean is required.

Contact: Scholarship Committee, Government Finance Officers Association, 203 North LaSalle Street, Suite 2700, Chicago IL, 60601-1210, Tel: (312) 977-9700.
Web: www.gfoa.org

Government Finance Officers Association – Frank L. Grehouse Government Accounting Scholarship
Deadline: March 1
Terms of reference: This scholarship competition is for senior students who are enrolled full-time in a university or college undergraduate accounting program in the United States or Canada. A senior is defined as a student in the last full year of study prior to being eligible for a baccalaureate degree. One or more scholarships of $3,500 each will be awarded. Candidates should have a superior academic record and have plans to pursue a career in state or local government or graduate studies in governmental accounting or public administration.
Contact: Scholarship Committee, Government Finance Officers Association, 203 North LaSalle Street, Suite 2700, Chicago IL, 60601-1210, Tel: (312) 977-9700.
Web: www.gfoa.org

Donald H. Lander Scholarship
Deadline: May 1
Terms of reference: One scholarship, valued at $1000, is offered to a student entering the third year of a program leading to a degree in business administration or management studies. Candidates must be Canadian citizens or landed immigrants and will have achieved a high level of academic excellence (“A” average), be entering the third year of the program and have demonstrated an interest and involvement in international management studies. This may include participation in an organization such as AIESEC. Letters of recommendation and transcripts must be sent directly from the university.
Contact: Gillian Whyte, Donor Services Associate, Community Foundation of Ottawa-Carleton, 75 Albert Street, Suite 301, Ottawa ON, K1P 5E7, Tel: (613) 236-1616 ext. 224, Fax: (613) 236-1621.
Email: gwhyte@communityfoundationottawa.ca
Web: www.communityfoundationottawa.ca

John McWilliams Memorial Scholarship Fund – The North West Commercial Traveller’s Association of Canada
Deadline: July 1
Terms of reference: The purpose of the scholarship is to assist the advancement of a worthy student in the field of sales and marketing. Candidate must be enrolled full-time in a post secondary educational institution in a field related to the area of sales and marketing and must be a permanent resident of Canada for at least two years. Submission must include a resume, a written submission outlining personal and professional goals in the sales and marketing field and details of the strategy in place for achievement of these goals and three reference letters.
Contact: The John McWilliams Memorial Scholarship Fund, c/o NWCTA, Box 336, Winnipeg MB, R3C 2H6, Tel: (204) 284-8900 or 1-900-665-6928, Fax: (204) 284-8909 or 1-877-284-8909. Email: ggford@nwcta.com

The Frederick T. Metcalf Award Program (Canadian Cable Television Association)
Deadline: March 1
Terms of reference: This scholarship is open to qualified full-time students pursuing graduate level studies in disciplines related to new media companies and delivering cable communications services in Canada: business (finance and marketing), economics, television production, mass communications, engineering. Candidates must be Canadian citizens or permanent residents.
Contact: Canadian Awards Program, Association of Universities and Colleges of Canada (AUCC), 350 Albert St, Suite 600, Ottawa ON, K1R 1B1, Tel: (613) 563-1236, Fax: (613) 563-9745.
Email: awards@aucc.ca
Web: www.aucc.ca

Robert E. Oliver Scholarship (Advertising Standards Canada)
Deadline: February 1
Terms of reference: ASC is pleased to award one $1,500 scholarship annually to a full-time post secondary student enrolled in a recognized advertising and/or marketing program at a Canadian university or college college. The Robert E. Oliver Scholarship commemorates ASC’s first president – a pioneer of Canadian advertising self-regulation. Robert E. Oliver played a key role in developing the Canadian Code of Advertising Standards, the principal instrument of advertising self-regulation. Only one nominee per institution.
Contact: Standards Division, Advertising Standards Canada, 350 Bloor Street East, Suite 402, Toronto ON, M4W 1H5, Tel: (416) 961-6311, Fax: (416) 961-7904.
Web: www.adstandards.com

External Scholarships for Education Students
Leo J. Krysa Family Undergraduate Scholarship in Education, History, Humanities, Social Sciences
Deadline: March 1
Terms of reference: The Leo J. Krysa family undergraduate scholarship is awarded annually to a student in the faculty of Arts or Education who is entering the final year of study in pursuit of an undergraduate degree. Applicants’ programs must emphasize Ukrainian and/or Ukrainian-Canadian studies, through a combination of Ukrainian and East European or Canadian courses in one of the following areas: education, history, humanities and social sciences. The scholarship is for an eight-month period of study at any Canadian university. Candidates must be Canadian citizens or permanent residents of Canada at the time of application.
Contact: Canadian Institute of Ukrainian Studies, 352 Athabasca Hall, University of Alberta, Edmonton AB, T6G 2E8.
Email: cius@gupu.srv.ualberta.ca
Web: www.cius.ca

External Scholarships for Science Students
Association of Professional Biologists Scholarship
Deadline: June 30
Terms of reference: The scholarship, valued at $1000, may be awarded each year to a student, who is son or daughter of a member in good standing of the association, and who is entering the third or fourth year of a program leading to a degree in biology or a closely related area as specified in the membership guidelines. It is the intention of the association that the student will be planning a career in some aspect of biology. The applicant shall complete an application form, as well as enclosing a copy of her/his transcript, two letters of reference, and an essay of approximately 500 words in which the student discusses her/his career goals and their importance to the science of biology. The student will also be given a one-year honorary membership in the APB as a student biologist in each year that they receive the scholarship.
Contact: Association of Professional Biologists, Suite 205 733 Johnson Street, Victoria BC, V8W 3C7, Tel: (250) 383-3306.
Email: apbbc@tnet.net

Baxter Corporation Jean Goodwill Scholarship
Deadline: July 1
Terms of reference: Consideration will be given to applicants of Indian and Inuit ancestry who intend to serve in the North, including students who are graduating from a registered nurses’ course and are accepted into one of the following: community health nursing, outpost nursing or midwifery, graduate nurses already serving in isolated communities who are accepted into one of the above mentioned programs; those who are or will be enrolled in a related nursing program. The successful applicant must provide documentation of her/his efforts to secure employment in isolated northern native communities. The scholarships are administered by the Association of Indian and Inuit Nurses of Canada. There are two scholarships in the amount of $5,000 each.
Contact: President of the Indian and Inuit Nurses of Canada, c/o Baxter Corporation, 55 Murray Street, Third Floor, Ottawa ON, K1N 5M3, Tel: (613) 241-1864, Fax: (613) 241-1542.

Dow/CCWEST – Women in Chemistry & Chemical Engineering Scholarship (Canadian Engineering Memorial Foundation)
Deadline: January 21
Terms of reference: Two $1500 scholarships are offered annually to women entering second or third year of an undergraduate chemical engineering or chemistry program to encourage them to pursue this career path. The scholarship is based primarily on demonstrated leadership, community involvement and extracurricular activities. Academic achievement is also considered in awarding the scholarship. Dow chemical Canada may consider the award winner for a summer, co-op or full time position at a Dow Chemical Canada location, depending on hiring needs identified at the time of the award. Selection of the award recipient will be made by Canadian Coalition of Women in Engineering, Science and Technology (CCWEST) based on all the information and references provided with the application. Applicants must be Canadian citizens or landed immigrants with permanent residence in Canada.
Contact: The Canadian Engineering Memorial Foundation, Dow Canada Canada/CCWEST Scholarship Award, P.O. Box 370, Renfrew ON, K7V 4A6, Tel: 1-866-883-2363.
Email: info@cemf.ca
Web: www.cemf.ca

Canadian Society for Chemistry’s Alfred Bader Scholarships
Deadline: May 15
Terms of reference: The Canadian Society for Chemistry offers the Alfred Bader Scholarship of $1000 as a mark of excellence for achievement in organic chemistry or biochemistry by undergraduate students completing their final year of study in an Honours program. Nominees must be student chapter members of the CSC and be continuing in a graduate program in chemistry or biochemistry at a Canadian university. Nominations should be submitted to Diane Goltz, Program Manager, Awards, Canadian Society for Chemistry. They shall include a copy of the honors’
Students will be planning to pursue a career in some of BC is awarding a number of scholarships to
Deadline: March 31
Scholarship Program
Guide Outfitters Association of BC
Email: awards@aucc.ca
563-1236, Fax: (613) 563-9745.
Universities and Colleges of Canada (AUCC), 350
degree.
Tenable for up to two consecutive academic years or
academic merit, the selection committee will take into
the results of any achievement or aptitude tests that
are required in the year of
Application. Applicants must have fully completed the
two years of course work in an environmental science or
environmental engineering program that is required to
continue a third year of their eligible program.
Evaluation is based upon the student’s academic
transcripts, a 500-word essay, letters of reference and
the results of any achievement or aptitude tests that have
been taken by the student. In addition to
academic merit, the selection committee will take into
consideration the student’s involvement in any
extracurricular activities. Each eligible educational
institution may nominate one candidate. The award is
tenable for up to two consecutive academic years or
until the award holder obtains a first undergraduate
degree.
Contact: Canadian Awards Program, Association of
Universities and Colleges of Canada (AUCC), 350
Albert St., Suite 600, Ottawa ON, K1R 1B1, Tel: (613)
563-1236, Fax: (613) 563-9745.
Email: awards@aucc.ca
Web: www.aucc.ca
The Cement Association of Canada Environmental Scholarships Program
Deadline: July 2
Terms of reference: The purpose of the scholarship is to encourage academic excellence in the pursuit of higher education and to increase the awareness of the cement industry at Canadian universities chosen by the Cement Association of Canada. Award recipients will be selected from environmental science or environmental engineering programs. Applicants must be Canadian citizens or have lived in Canada for at least two years as a permanent resident and entering the third year of a full-time undergraduate program at a qualifying institution in the year of application. Applicants must have fully completed the two years of course work in an environmental science or environmental engineering program that is required to continue a third year of their eligible program.
Evaluation is based upon the student’s academic transcripts, a 500-word essay, letters of reference and the results of any achievement or aptitude tests that have been taken by the student. In addition to academic merit, the selection committee will take into consideration the student’s involvement in any extracurricular activities. Each eligible educational institution may nominate one candidate. The award is tenable for up to two consecutive academic years or until the award holder obtains a first undergraduate degree.
Contact: Canadian Awards Program, Association of
Universities and Colleges of Canada (AUCC), 350
Albert St., Suite 600, Ottawa ON, K1R 1B1, Tel: (613)
563-1236, Fax: (613) 563-9745.
Email: awards@aucc.ca
Web: www.aucc.ca
Guide Outfitters Association of BC Scholarship Program
Deadline: March 31
Terms of reference: The Guide Outfitters Association of BC is awarding a number of scholarships to students graduating from grade 12 or who have completed their first year post secondary. Eligible students will be planning to pursue a career in some aspect of an environmental service group.
Exempt(s) include: wildlife biologist, research biologist, habitat biologist, conservation officer, wildlife veterinarian, teaching and management, etc. Applications must include an essay of at least 1000 words describing the applicant’s view on the role of hunting in wildlife management.
Contact: Guide Outfitters Association of BC, Box 94675, Richmond BC, V6Y 4A4, Tel: (604) 278-2688, Fax: (604) 278-3440.
Email: info@guideoutfitters.ca
Web: www.guideoutfitters.ca
The Frederick T. Metcalf Award Program (Canadian Cable Television Association)
Deadline: March 28
Terms of reference: This scholarship is open to qualified full-time students pursuing graduate level studies in disciplines related to new media companies and delivering cable communications services in Canada: business (finance and marketing), economics, television production, mass communications, engineering. Candidates must be Canadian citizens or permanent residents.
Contact: Canadian Awards Program, Association of Universities and Colleges of Canada (AUCC), 350 Albert St., Suite 600, Ottawa ON, K1R 1B1, Tel: (613) 563-1236, Fax: (613) 563-9745.
Email: awards@aucc.ca
Web: www.aucc.ca
Port Moody Ecological Society Scholarship
Deadline: May 31
Terms of reference: An award is offered to a School District #43 student currently engaged in an environmental studies discipline at a post secondary institution. Candidate must be a School District #43 student who is enrolled at a post secondary institution and who has completed at least one year towards accreditation in an environmental studies program. Candidates must have a strong ongoing volunteer record with environmental service groups, a good academic record, career goals which reflect a commitment to the environment and financial need. Application package must include a complete application form, a personal statement (type, not to exceed 500 words) outlining a volunteer experience and its benefits to you; b) career plans; and c) financial need, copies of your high school and post secondary institution transcripts, a resume (not to exceed two pages), and two letters of reference regarding your qualifications. One letter should be from someone familiar with your academic strengths; the other from an executive member of an environmental service group.
Contact: Port Moody Ecological Society, 300 lico Road, Port Moody BC, V3H 2TV Tel/Fax: (604) 469-9106.
The Wood Scholarship Fund – The Women’s Association of the Mining Industry of Canada, Toronto
Deadline: June 15
Terms of reference: The Wood Scholarship shall be awarded to students with financial need for tuition fees and books at a duly qualified school of mining in Canada in the amount of $2,000. These scholarships are for well-rounded students with a “B” or better average pursuing careers in the Mining Industry. The scholarship is available for undergraduate studies and can be renewed up to four years providing the scholar maintains good academic standing and the need prevails.
Contact: The Women’s Association of the Mining Industry of Canada, Toronto, The Wood Scholarship Fund, PO Box 207 Postal Station A, Toronto ON, M6W 1B2.
Externally Administered Bursaries
The following bursaries are not administered by Simon Fraser University. The information is intended for general reference only; it may be subject to change. The student is responsible for enquiring and applying through the appropriate agency as indicated in the description.
External Bursaries for All Students

Arctic Co-operatives Bursary
Deadline: January 31
Terms of reference: Arctic Co-operatives Ltd., the NWT Co-operative Business Development Fund, and the Canadian Northern Studies Trust offer a bursary, normally valued at up to $2,000 to support a student whose studies will contribute to the understanding and development of cooperatives in the Northwest Territories. The award may be held concurrently with a Special Bursary for Northern Residents. Applicants who are not northern residents must be full-time students at a recognized Canadian community college, or a Canadian university. In making the selection for the award, preference will be given to northern residents.
Contact: Association of Canadian Universities for Northern Studies (ACUNS), 17 York Street, Suite 405, Ottawa ON, K1N 9J6, Tel: (613) 562-0515, Fax: (613) 562-0533.

BC Government and Service Employees’ Union Scholarships
Deadline: March 1
Terms of reference: Twelve $1,000 scholarships are available each year to students who are BCGEU members or relatives of members of staff. Applicants must be registered full time in a post secondary program at a BC education institution with a satisfactory academic record.
Contact: Education Officer, Attention: Scholarship Committee, BC Government and Service Employees’ Union, 2994 Douglas Street, Victoria BC, V8T 4N4 Web: www.bcgue.bc.ca

British Columbia Health Care Bursaries
Deadline: November 15, March 15 and July 15
Terms of reference: You may apply for a health care bursary if you meet all of the following:
• you have worked for an employer who is base funded by the Ministry of Health, for at least 12 months in the last 4 years, dating back from the start of the bursary period; or
• you have worked in a position that was base funded by the Ministry of Health prior to the creation of the Ministry for the Children and Families, for at least 12 months in the last four years, dating back from the start of bursary period; and
• you have been a permanent resident of BC for the last 12 months; and
• during the bursary award period for which you are applying, you are enrolled in an eligible health care program of study at least 4 months in length, at a BC public post-secondary school, St. Paul’s Hospital or BC Cancer Agency program, that leads to a certificate, diploma or degree recognized for practice in BC; and
• based on the information provided on the application, you can demonstrate financial need and/or that you will suffer significant financial loss by taking training.
Contact: Health Care Scholarship Fund, Student Services Branch, PO Box 9180 Stn Prov Govt, Victoria BC, V8W 9H9, Tel: (250) 387-6100 in Victoria / 604-251-0 in the lower mainland / 1-800-561-1818 (toll-free in Canada), Fax: (250) 356-5440.

BC Indian Arts and Welfare Society Memorial Bursary
Deadline: Unknown
Terms of reference: A bursary of $150 will be awarded annually by the BC Indian Arts and Welfare Society in memory of those Indian Canadians who gave their lives in either World War. Native Indian applicants must be from the Province of BC and must be
planning to enter one of the established universities or colleges in BC, or a recognized technical school or other training centre. The award will be made by the Executive Committee of the BC Indian Arts and Wellness Society. Application is received from a student entering first year university, then the bursary may be awarded to a student enrolled in any of the senior years. Contact: The Honourable Secretary, BC Indian Arts Society, 212-701 Esquimalt Road, Victoria BC, V8A 3L5.

BC Ministry of Aboriginal Affairs – First Citizen’s Fund Deadline: May 31
Terms of reference: Bursaries in the amounts of $700 – $2,000 per year (depending on other funding sources). Applicants must be persons of North American aboriginal ancestry and have been resident in BC for at least the previous six months. Applicants must be recommended by a Band Council or an Aboriginal organization (like the UNN), be enrolled in at least a two-year program and maintain at least a C+ average. Out-of-province assistance will be given consideration providing the academic courses or equivalent are not offered in BC or the courses are offered, but all BC facilities are filled. Applications will be considered for each academic year required to attain a degree including additional academic years to attain a master’s degree of the same discipline. In the event a student changes programs, the first academic year in the new program will not be eligible; however, the second and subsequent terms may be considered. Applications must include an application form; self-written letter on family background, tribal ancestry and work history; supporting letter from your Band, recognized First Nations organization, home school coordinator or school counsellor; any additional information pertaining to the application should be included on a separate page.
Contact: Ministry of Aboriginal Affairs, Manager, First Citizens Fund, Parliament Buildings, Victoria BC, V8V 1X4.

BC Nursing Education Bursary Program Deadline: November 15, February 28, July 15
Terms of reference: You may apply for a nursing education bursary if you meet all of the following:
• you have been a permanent resident of BC for the last four years, dating back from the start of the bursary period; and
• you are enrolled in an eligible health care program of study at least four months in length, at a BC public post-secondary school, St. Paul’s Hospital or BC Cancer Agency program, that leads to a certificate, diploma or degree recognized for practice in BC; and
• you demonstrate financial need and/or that you will suffer significant financial loss by taking training; and
• you are not in default of a BC student loan; and
• you have been a permanent resident of BC for the last 12 months; and
• you have worked for an employer who is base funded by the Ministry of Health, for at least 12 months in the last four years, dating back from the start of the bursary period; OR you have worked in a position that was base funded by the Ministry of Health prior to the creation of the Ministry for the Children and Families, for at least 12 months in the last four years, dating back from the start of bursary period; and
• you are enrolling in a nursing refresher program or qualifying program that will lead to licensure as an RN, RPN or LPN; OR you are enrolling in the third or fourth year of a nursing program or are enrolled in graduate or specialty nursing.
Contact: Nursing Education Bursary Program, Student Services Branch, PO Box 9173 Sn Prov Govt, Victoria BC, V8W 9H7, Tel: (250) 387-6100 in Victoria / 860-2610 in the lower mainland / 1-800-561-1818 (toll-free in Canada), Fax: (250) 356-5440.

BC Paraplegic Foundation Scholarships/Bursaries Deadline: July 31
Terms of reference: Each year the BC Paraplegic Foundation gives out a number of scholarships and bursaries to needy students with disabilities attending post secondary institutes in British Columbia. The awards are available to members of the BC Paraplegic Association who have a physical disability and will be awarded on academic standing, merit and the basis of financial need. Recipients must be residents of British Columbia, Canadian Citizens, or Landed Immigrants. The monies for individual awards vary from year to year, dependent upon interest from investments. Therefore, the values of the scholarships and bursaries are adjusted annually according to the availability of funds. Completion of an application form will ensure the applicant is considered for each scholarship or bursary they are eligible for.
Contact: Scholarship and Bursary Awards Committee, c/o BC Paraplegic Association, 780 S.W. Marine Drive, Vancouver BC, V6P 5Y7, Tel: (604) 324-3611, Fax: (604) 324-3671.

The British Columbia Associated Boards of Health/Dr. Ken Benson Memorial Bursaries Deadline: September 30
Terms of reference: Candidates must be full-time students engaged in post-graduate study in a field of public/community health practice within an applicable discipline (e.g. nurses, nutritionists, environmental health officers, etc.). Physicians are not eligible for this bursary. Preference will be given to individuals who are resident and practising in BC, who demonstrate a commitment to remain in BC, who commit to live and practise in rural areas of BC. Studies may be undertaken at any post-secondary institution in BC. Consideration will be given to candidates who wish to study out-of-province or out-of-country. Applications must be accompanied by a current C.V., proof of acceptance or enrollment in an appropriate program, future goals and intentions within public/community health and any other relevant information.
Contact: The Office of the Medical Health Officer, Northern Health Authority, 14404 Edmonton Street, Prince George, BC, V2M 6W5.
Web: www.vancouverfoundation.bc.ca/Community/Public%20health.shtml

The Norm Bromberger Research Bursary Deadline: June 30
Terms of reference: The purpose of the bursary is to encourage research in the area of co-operatives and credit union. All applications will be considered, especially those where financial support of the bursary is essential to undertaking the research project. Preference will be given, but not limited, to Saskatchewan candidates.
Contact: Centre for the Study of Co-operatives, 101 Diefenbaker Place, University of Saskatchewan, Saskatoon SK S7N 5B8, Tel: (306) 966-8509, Fax: (306) 966-8517.
Email: COOPSTUDIES@USASK.CA
Web: COOP-STUDIES.USASK.CA

Ultran Patrick Byrne Education Trust Bursary Deadline: May 14
Terms of reference: Bursaries are awarded based on financial need to assist with undertaking and/or completing programs (on a full time basis) in medicine, law, engineering or nursing. Applicants must be enrolled full-time in undergraduate or graduate courses at Simon Fraser University. Applicants must have been born and currently reside in British Columbia. Please submit an application with proof of your place of birth.
Email: slforsyth@comptoninternational.com

Cal Callahan Memorial Bursary – Pipe Line Contractors Association of Canada Deadline: September 30
Terms of reference: A bursary, or bursaries, not exceeding six thousand dollars ($6,000) in total, will be awarded by the Pipe Line Contractors Association of Canada to sons, daughters, or legal wards of persons who derive their principle income from the Pipeline Industry and whose employers are members of the association. To qualify, the parent or guardian of the applicant must be employed by or have a history of employment with an association member firm. The applicant must be enrolled in first year studies at any recognized Canadian university or college in a programme leading to a degree or certificate in any field. Applications may be obtained from and submitted to the association office at any time but must be supported by transcripts of high school record, evidence of university or college enrollment, and proof of payment, by not later than September 30th.
Contact: Pipeline Contractors Association of Canada, Suite 201, 1075 North Service Road W., Oakville ON, L6M 2G2, Tel: (905) 847-9383, Fax: (905) 847-7824.
Email: info@pipeline.ca
Web: www.pipeline.ca

Canadian Federation of University Women’s Bursaries Deadline: May 31
Terms of reference: Bursaries are available to students, twenty years or older, who have completed grade 12 and are registered or planning to register at a post secondary institution. Applicants must be female residents and/or graduates of South Delta (Ladner/Tsawwassen).
Contact: Canadian Federation of University Women’s Club of South Delta, c/o 5044 Erin Way, Delta BC, V4M 1K1, Tel: (604) 945-8089.

Canadian Federation of University Women Parksville/Qualicum – Mature Women Bursaries Deadline: June 2
Terms of reference: Three bursaries will be awarded to a mature female student from the Parksville/Qualicum area, District 69. Applicants must have been out of school for at least two years and have been accepted by the school or university of her choice.
Contact: The Secretary of the Scholarship Trust, C.F.U.W. – Parksville/Qualicum, PO Box 113, Qualicum Beach BC, V9K 1S7.
Web: www.macn.bc.ca/~cfuw

Caribou Research Bursary Deadline: January 31
Terms of reference: The Beverly and Qamanirjuaq Caribou Management Scholarship Fund provides awards of up to $3,000 to full-time students enrolled in a recognized Canadian community college or university pursuing studies that will contribute to the understanding of Barren Ground Caribou (and its habitat) in Canada. Preference will be given to individuals who are normally resident in one of the caribou-using communities on the range of the Beverly or Qamanirjuaq caribou. These awards may be held concurrently with a special Bursary for Northern Residents.
Contact: Association of Canadian Universities for Northern Studies (ACUNS), 17’ york Street, Suite 405, Ottawa ON, K1N 8J6, Tel: (613) 562-0515, Fax: (613) 562-0533. Email: acuns@cyberus.ca
Web: www.aix1.uottawa.ca

Hugh Christie Memorial Bursary – YMCA Deadline: November 1

Simon Fraser University 2005 • 2006
Terms of reference: A $500 bursary is available to a student who is pursuing a career in Corrections, International Development, Social Work or YMCA, YWCA. The student must be full-time and taking courses in any of the following fields of study: Physical Education, Recreation, Social Work, Criminology or any directly related fields. Applications must be in writing, giving full particulars together with the reason for applying (in 500 words or less) along with letters of reference.

Contact: Hugh Christie Memorial Bursary Committee, YMCA of Greater Vancouver, #200-1166 Alberni Street, Vancouver BC, V6E 3Z3, Tel: (604) 681-9622, Fax: (604) 688-0220.

The Columbia Institute Awards Program
Deadline: March 1

Terms of reference: The Columbia Institute Awards Program is designed to support the financial needs of adult learners interested in re-training and skills development. To be eligible, candidates must be 24 years of age or older, a BC resident, a Canadian citizen or landed immigrant and not currently enrolled in a training or academic program.

Contact: Columbia Institute, #702-1166 Alberni Street, Vancouver BC, V6E 3Z3, Tel: (604) 408-2500, Fax: (604) 408-2700.
Email: awards@columbiainstitute.ca
Web: www.columbiainstitute.ca

Coquitlam Foundation Bursaries
Deadline: February 11

Terms of reference: The applicant must be a resident of the City of Coquitlam, demonstrate financial need, have a history of school and/or community involvement, have achieved good grades, demonstrate an ability to successfully undertake a program of studies, attend an interview with the selection committee, begin designated studies within eight months of formal notification of selection and submit a written report upon completion of applicable term of studies. Bursary applications must include a letter of application, which should include a statement outlining why the applicant merits the award (financial need), completed application form, a resume, copy of appropriate school transcripts and two letters of reference.

Contact: Grants Committee Chair, Coquitlam Foundation, 207 Pinecrest Way, Coquitlam BC, V3B 7Y3, Tel: (604) 927-3006, Fax: (604) 927-3015.

Delta Auxiliary Student Bursary
Deadline: May 31

Terms of reference: A bursary is offered to a student who is pursuing a post-secondary education in the healthcare field. Applicants must be involved in or entering the field of Health Care and be a current Delta resident for a period not less than two years. Contact: Delta Hospital Auxiliary Society, Bursary Committee, 5800 Mountain View Boulevard, Delta BC, V4K 3V6, Tel: 604-946-1121 (3212), Fax: 604-946-5741.

Emergency Preparedness for Industry and Commerce Council Bursary (EPICC)
Deadline: June 30

Terms of reference: The Emergency Preparedness for Industry and Commerce Council (EPICC) has established an annual bursary to be awarded to a deserving student undertaking a program of studies which includes at least one emergency management course. Qualification requirements for the bursary are: current study program includes at least one course in emergency management, study program leads to a diploma or a degree at a BC post-secondary institution, financial need, demonstrated involvement in community service, good academic standing, two references and application to include a 500 word essay on the importance of emergency preparedness for the well being of the business community. Preference will be given to EPICC members/employees or their immediate family.

Contact: Mr. Nick Toulin, EPICC Bursary Committee, 1110-1104 West Georgia Street, Vancouver BC, V6E 4H1, Tel: (604) 687-5522. Email: epicc@sfu.ca
Web: www.epicc.org

Forest Renewal BC Bursary Program
Deadline: April 30

Terms of reference: Forest Renewal BC Bursary Program is open to graduating grade 12 students attending high schools, regional correspondence schools, or band schools in BC and first and second year students attending post secondary institutions in BC. Applications for bursaries must include the completed application form and a typed document of no more than 500 words explaining how your ideas or proposed course of study will support sustainable forest development and Forest Renewal BC goals. Contact: Peg Ainsley, Forest Renewal BC, Bursary Program Administration, Tel: (250) 387-4248, Fax: (250) 356-7134. Email: peg.ainsley@gems1.gov.bc.ca
Web: www.renewal.bc.ca

Hamilton Community Foundation
Deadline: October 1, February 1 & June 1

Terms of reference: Hamilton Community Foundation provides modest financial assistance from various bursary funds established by generous contributors to post-secondary students. Applicants must demonstrate serious financial need; have graduated from publicly-funded secondary schools in the Hamilton Ontario; be registered/in attendance at an approved college or university in Canada and be enrolled in full-time undergraduate studies. In special circumstances, part-time or post-graduate studies may be considered.
Contact: Hamilton Community Foundation, 2 King Street West, Plaza Level, Hamilton ON, L8P 1A1, Tel: (905) 523-5000, Fax: (905) 523-0741.

Indian\nHealth Care Bursaries Program
Deadline: February 15

Terms of reference: Bursaries are available to assist students of Aboriginal ancestry who wish to pursue educational opportunities leading to careers in health professions. Candidates must be Canadian citizens of Aboriginal ancestry who have resided in British Columbia for the last 12 months. Candidates must demonstrate financial need and be acceptable for enrolment in a professional health careers program. A professional health careers program is a post-secondary program in a federally recognized college or university that provides a degree or diploma qualifying graduates for employment in an accredited health care profession, such as medicine, nursing, dentistry, health administration, traditional medicine.
Contact: First Nations Chiefs’ Health Committee, Health Careers/Financial Manager, #902-100 Park Royal South, West Vancouver BC, V7T 1A2.

Insurance Institute of BC Bursary
Deadline: June 15

Terms of reference: Valued at $1500 this bursary is offered annually to students entering third year in the faculty of risk management who completed secondary schooling within British Columbia. It is based on academic standing and financial need. It is available to students transferring into the Faculty of Management from a post-secondary institution of BC. Contact: University of Calgary, Students Award Office, 124 MacKimmie Library Block, 2500 University Drive NW, Calgary AB, T2N 1N4, Tel: (403) 220-6925.

KIN Canada Bursaries – A Program of the Hal Rogers Endowment Fund
Deadline: February 1

Terms of reference: The program was established to promote, encourage and sponsor educational programs and activities by providing assistance to applicants in their quest for higher learning at a recognized post-secondary institution. Applicants must be a Canadian citizen or landed immigrant, must plan to register as a full-time student in September at a recognized University, Community College, Technical Institute or other post-secondary institution for advanced learning, must demonstrate high ideas and qualities of citizenship and not have previously received a bursary from the Hal Rogers Endowment Fund. Applications must be submitted to a Kinsmen, Kinette, or Kin Club nearest to the applicants’ permanent residence.

Contact: KIN Canada Bursary, c/o Hal Rogers Endowment Fund, 1920 Hal Rogers Drive, PO Box KIN, Cambridge ON, N3H 5C6, Tel: 1-800-742-5546 ext. 215, Fax: (519) 650-1091.
Email: kin@kinclubs.ca
Web: www.bursary.ca

The Leonard Foundation Financial Assistance Program
Deadline: March 15

Terms of reference: This award supports students in an undergraduate degree program in Canada who demonstrate the institution accepts the student, regardless of age or any other prerequisite. The main criterion is based on financial need. All applicants will be considered but preference will be given to sons and daughters of clergy, teachers, military, personnel, graduates of Royal Military College, members of the Engineering Institute of Canada and members of the Mining and Metallurgical Institute of Canada. The amount of the award will vary depending on the applicant’s financial assistance, but on average, it will be in the amount of $1,250 and approximately 140 will be made annually across Canada.
Contact: Silvio Sauro, Honourary Secretary, The Leonard Foundation, 20 Englington Avenue West, Seventh Floor, Toronto ON, M4R 2Z2, Fax: (416) 361-8711.
Email: info@leonardfoundation.ca
Web: www.leonardfoundation.ca

MADD Canada Bursary Program

Terms of reference: The program provides financial assistance to Canadian students who have had a parent or guardian killed in an impaired-driving crash and are pursuing any full time post secondary educational program that is approved by a provincial Ministry of Education.
Contact: National Youth Services Manager, MADD Canada Bursary Program, 6507C Mississauga Road, Mississauga ON, L5N 1A6, Tel: 1-800-665-6233, (905) 813-6233, Fax: (905) 813-8920.
Email: info@madd.ca
Web: www.madd.ca

David Mason Educational Fund – Queen Alexandra Foundation For Children
Deadline: June 30

Terms of reference: The Former Women’s Auxiliary of the George R. Pearkes Centre for Children (now the Queen Alexandra Centre for Children’s Health in Victoria, BC) established a fund in the name of David Mason, a former student at the Centre. One or more awards will be granted each year. The purpose of the fund is to assist a person with a disability who has been a student at the centre at one time or another to undertake or continue his/her post-secondary education. Monies awarded could be used for tuition fees, books, equipment, transportation, residence and support worker costs.
Contact: David Mason Education Fund, Queen Alexandra Foundation for Children, Queen Alexandra Foundation for Children, 2400 Arbutus Road, Victoria BC, V8N 1V7, Tel: (250) 721-6721, Fax: (250) 721-6715.
Web: www.queenalexandra.org
Undergraduate

Ministry of Education – Official Language Programs
Deadline: February 15

Terms of reference: A number of official-language programs are available to residents of British Columbia. Funded by the federal government of Canada and administered by the provincial Ministry of Education, the following programs are currently available:

• Summer Language Bursary Program – deadline mid-February (www.cmc.edu/olp)
• Official-Languages Study Fellowship (www.boed.gov.bc.ca/frenchprograms/offlang.htm)
• Minority Language Intergovernmental Travel Bursary (www.boed.gov.bc.ca/frenchprograms/offlang.htm)
• Official-Language Mentor Program – deadline mid-February (www.cmc.edu/olp)
• British Columbia/Quebec Six-month Bilingual Exchange Program (apply through participating schools)
• French Teachers' Bursary Program (www.boed.gov.bc.ca/frenchprograms/offlang.htm)

Contact: Provincial Coordinator Federal Official-Languages Programs, French Programs Unit, Ministry of Education, PO Box H170, Sh Pov Govt, Victoria BC, V8Y 9H3, Tel: (250) 356-2524, Fax: (250) 387-1470.
Web: www.cmc.edu/olp
www.boed.gov.bc.ca/frenchprograms/

Ministry of Health – Native Health Bursary
Deadline: March 31

Terms of reference: Applicants must have lived in BC or the Yukon for at least the last year before applying. The program must be a recognized Native Health Program. You must have a letter of reference from a Band Council, Friendship Centre or other recognized Aboriginal organization. Value of award determined by financial need.

Contact: Ministry of Health, Human Resources Office-North, Fourth Floor - 1800 Third Avenue, Prince George BC, V2L 3G6, Tel: (250) 567-7255.

Bill and Elsie More First Nations Bursary
Deadline: October 1

Terms of reference: Bursaries are available to assist First Nations students attending any university or college in BC. Amount of bursary is based on need. Bursary amount is $1,000 and may be divided between more than one students.

Contact: The Bill and Elsie More First Nations Bursary Fund, Attention: Dr. Art More, c/o Department of Educational Psychology, University of BC, 2125 Main Mall, Vancouver BC, V6T 1Z4.

National Aboriginal Achievement Foundation Business, Science and General Education
Deadline: June 1

Terms of reference: The NAAF provides support for Aboriginal students studying in the fields of business, science, law, engineering, information technology, technical studies, education, social work and the social sciences. Applicants must enroll in post-secondary programs of at least two academic years at recognized Canadian technical institutes, CEGEPs, colleges and university. Certificate or diploma programs, undergraduate and graduate degree programs are eligible for consideration. Awards are made on the basis of financial need, academic merit, and the applicant's interest and commitment to his or her education.

Contact: The National Aboriginal Achievement Foundation, Suite 33A, 70 Yorkville Avenue, Toronto ON, M5R 1B9, Tel: (416) 926-0775, Toll Free: 1-800-329-9780, Fax: (416) 926-7554.
Email: education@naaf.ca
Web: www.naaf.ca

National Aboriginal Achievement Foundation Aboriginal Health Careers Program
Deadline: May 1

Terms of reference: Health Canada selected NAAF to administer its health careers scholarship and bursary program that assists Canadian resident students of Aboriginal ancestry to pursue education opportunities leading to professional health careers. Scholarships and bursaries are available to students who are studying in health sciences such as: nursing, medicine, dentistry, pharmacy, lab technology, physiotherapy, dietetics, health administration, public health policy.

Contact: The National Aboriginal Achievement Foundation, Suite 33A, 70 Yorkville Avenue, Toronto ON, M5R 1B9, Tel: (416) 926-0775, Toll Free: 1-800-329-9780, Fax: (416) 926-7554.
Email: education@naaf.ca
Web: www.naaf.ca

Pacific Coast Fishermen's Mutual Marine Insurance Company
Deadline: September 1

Terms of reference: Bursaries of $600 are available to sons, daughters and legal wards of past or present members of Pacific Coast Fishermen’s Mutual Marine Insurance Company. Applicants must be enrolled full time at a post-secondary educational institution.

Contact: Pacific Coast Fisherman's Mutual Marine Insurance Company, #220-4259 Canada Way, Burnaby BC, V5G 1H1, Tel: (604) 438-4240.

Peterhouse-Cambridge Friends of Peterhouse Bursary
Deadline: April 1

Terms of reference: Peterhouse offers a bursary to a well-qualified graduate student from overseas who is not already a resident member of the College and who wishes to read for an undergraduate degree as an affiliated student of the University of Cambridge. The bursary is intended to assist towards the cost of studying at Cambridge. Candidates should be under 25 years of age on December 1. Candidates must be graduates of a university in the United Kingdom or elsewhere. They must intend to be candidates for a degree in the University of Cambridge. Tenure of the bursary is subject to the condition that the elected student be admitted for a place, if an Affiliated Student, at Peterhouse; if intending to read for a graduate degree by Peterhouse and by the Board of Graduate Studies of the University of Cambridge, the bursary may only be held at Peterhouse.

Contact: Senior Tutor, Peterhouse, Cambridge, CB2 1RD, England.

Pilot Foundation Bursary
Deadline: September 30

Terms of reference: The Pilot Foundation, in order to encourage and study the use and French of the province, is pleased to offer bursaries to students pursuing studies in any of the fine arts who either use French sufficiently to be at ease in the language. Candidates should send a dossier containing:

• a letter in French outlining his or her linguistic background, details of present or proposed studies and some indication of previous artistic achievements;

• with two letters of reference from persons able to attest to the candidate's artistic merit and

• copies of relevant academic documents such as transcripts of marks or certificates awarded.

The award will be announced to the recipient by the end of October. Documents submitted will not be returned.

Contact: M. Walter Herring, Secretaire des Bourses, La Fondation André Pilot, 1575 Avenue du Paroisse, Vancouver BC, V6J 1S1, Tel: (604) 263-5639.

The Pisapao Bursaries
Deadline: September 25

Terms of reference: Bursaries in the amount of $500 are available each year. The number and the value of each award may be changed from time to time at the discretion of the trustees. Applicants must meet the following criteria:

• applicant must be accepted for admission to a university;

• applicant must be a full-time student working toward an undergraduate degree or graduate degree from the university;

• the applicant must have completed a minimum first year of university studies;

• the awards will be given: first to eligible applicants who are residents of the City of Vancouver; second, to eligible applicants who are residents of an area within a 50 mile radius of City of Vancouver; and third, to eligible applicants who live in the East or West Kootenay regions.

Contact: The Pisapao Scholarship Trust, 421 Baker Street, Nelson BC, V1L 4H7.

Dr. John D.E. Price Bursary
Deadline: June 18

Terms of reference: The bursary provides funding for education and training purposes to kidney patients. Applicant must be a resident of British Columbia, eighteen years or older and a pre-dialysis, dialysis or kidney transplant patient. Spouses and dependent children are also eligible. Previous recipients are welcome to re-apply.

Contact: The Kidney Foundation of Canada, BC Branch, 320 – 1600 West 6th Avenue, Vancouver BC, V6J 1R5 Tel: (604) 736-9775, 1-800-567-8112.

Provincial BC International Year of Physically Challenged Persons Bursaries
Deadline: unknown

Terms of reference: In recognition of the International Year of Physically Challenged Persons, these bursaries were created to financially assist students with disabilities and will be awarded on merit and the basis of financial need. Several annual bursaries of $500 each are available. Applicants must be residents of BC, Canadian citizens or Landed Immigrants.

Contact: Grant Co-ordinator, BC Paraplegic Foundation, 770 SW Marine Drive, Vancouver BC, V6P 5Y7.

The Public Trustee Educational Assistance Fund
Deadline: April 15

Terms of reference: Public Trustee Educational Assistance Fund bursaries are awarded annually in conjunction with the Ministry for Children and Families from a limited fund to high school graduates who are over 19 years old and pursuing a post-secondary academic, technical or vocational program. These bursaries are only available to former permanent wards of the Ministry of Social Services and those formerly in continuing custody of the Ministry for Children and Families of the Province of British Columbia. These bursaries assist recipients to further their academic or vocational goals by supplementing existing funding to cover shortfalls which otherwise might cause the individual to terminate their studies prematurely. Applicants must have other sources of funding.

Contact: Personal Trust Officer, Public Trustee of British Columbia, 700-808 West Hastings Street, Vancouver BC, V6C 3L3, Tel: (604) 680-4077, Fax: (604) 660-0964.

Quota International District 11 Speech and Horsing Bursary
Deadline: April 30

Terms of reference: This bursary is in the amount of $1,000 and is available to:

• assist a person with communication disorder to receive instruction or

• a teacher who is willing to undertake the instruction of children with communication disorders or
• assist a person to undertake professional training for work in the field of communication disorders.

Applicants must attach the following documents with their application form: transcript of grades or other certificates, two letters of reference attesting to previous achievements and character (from teachers or other persons who have knowledge of the applicant’s personality and academic capabilities), and plans for future involvement in the fields of hearing and speech or communication disorders, or with the deaf community.

Contact: District 11 Bursary, Quota International, 220 Manor Park Road, Penticton BC, V2A 2R2, Tel: (204) 728-2633, Fax: (204) 728-9610.

Rixon Rafter Bursary Fund

Deadline: September 30

Terms of reference: This fund was established in honor of the late Rixon Rafter, a graduate of the Ontario School for the Blind (now the W. Ross MacDonald School) in Brantford, Ontario. Mr. Rafter became a successful newspaper publisher. Interest from the fund provides assistance to needy, registered blind students involved in academic or educational pursuits. The Rixon Rafter Bursary Grants will make available financial awards of from $300 to $500 to legally blind Canadians pursuing post-secondary studies with strong career aspirations. Grants will be made based on financial need and career goals.

Contact: Chairman, Rixon Rafter Bursary Committee, The W. Ross MacDonald School, Brantford ON, N3T 3J9.

Royal Canadian Legion British Columbia/Yukon Command Bursary Program

Deadline: May 31

Terms of reference: A number of awards are offered annually for students proceeding from high school to university and to students taking a full course-load in second and third year university. The awards are granted on the basis of academic standing, financial need and veteran affiliation. Incomplete and/or late applications will not be considered.

Contact: The Royal Canadian Legion, BC/Yukon Command, 3026 Arbutus Street, Vancouver BC, V6k 3B2, Tel: (604) 736-8166, Fax: (604) 736-1635.

Email: admin@pacificlegion.org

Web: www.pacificlegion.org

Royal Canadian Legion British Columbia Ladies auxiliary Branch 160 Comox Bursary Program

Deadline: May 31

Terms of reference: Bursaries are offered annually to applicants who attend post secondary school, continuing or trade school. The awards are granted on the basis of academic standing, financial need and veteran affiliation. Incomplete and/or late applications will not be considered.

Contact: The Royal Canadian Legion Ladies’ Auxiliary Branch No. 160, 1825 Comox Avenue, Comox BC, V9M 3M3

R.B. Shaw Bursaries

Deadline: September 25

Terms of reference: Bursaries in the amount of $500 are available each year. Applicants must be accepted for admission to a university, be a full-time student working towards an undergraduate degree or graduate degree from the university, and have completed a minimum first year of university studies. The awards will be given: first to eligible applicants who are residents of the City of Nelson, second to eligible applicants who are residents of an area within a 50 mile radius of City of Nelson and third to eligible applicants who live in the East or West Kootenay regions.

Contact: The Pispasio Scholarship Trust, 421 Baker Street, Nelson BC, V1L 4H7.

Special Awards for Northern Residents – Canadian Northern Studies Trust

Deadline: January 31

Terms of reference: These bursaries, valued at $2,500 to $5,000 each, allow persons who are northern residents and in need of financial assistance to engage in an educational experience at a degree granting institution in BC. The intent of these bursaries is to assist students who wish to continue post-secondary training, have a mental health diagnosis, meet THEO BC’s entrance criteria, and are in need of financial assistance. The bursaries can be applied to full or part time programs leading to a recognized certificate, diploma or degree in public or private post-secondary settings. Academic, trade and technical programs will be assessed equally. Applications may be submitted by December 31.

Contact: THEO BC, Administrative Assistant, 1910 Quebec Street, Vancouver BC, V5T 4K1, Tel: (604) 872-0770, Fax: (604) 873-1758.

University Women’s Club of the Comox Valley Bursary

Deadline: July 1

Terms of reference: A $500 bursary is offered to a female graduate of a Comox Valley high school program who has completed at least one year of study in an accredited course at a Canadian university or college.

Contact: Jane Bush, Secretary Bursary Committee, 1270 Mayfair Road, Comox BC, V9M 4C2, Tel: (250) 339-9985.

Email: bush@imars.ark.com

White Spot Limited Bursary

Deadline: June 30

Terms of reference: Two $500 bursaries are offered by White Spot Limited for their employees and sons and daughters of their employees who have served with White Spot for at least one year by the application deadline. The bursaries are open to students in a full program of studies at the University of British Columbia, the University of Victoria, Malaspina College, Simon Fraser University or BC Institute of Technology. Candidates must have achieved an average of at least 65% in their previous year of study. Contact: Award 077724; Apply at University of British Columbia, Student Financial Assistance and Awards, Enrolment Services, 1036-1874 East Mall, Vancouver BC, V6T 1Z1, Tel: (604) 822-5111, Fax: (604) 822-6292.

External Bursaries for Applied Sciences Students

Division of Engineers and Geoscientists for the Forest Sector Bursaries

Deadline: May 3

Terms of reference: The Division of Engineers and Geoscientists in the Forest Sector (DEGISFS) is pleased to offer bursaries, aimed at advancing forest engineering and geoscience/geotechnique education in BC. The bursaries are intended to provide nominal financial assistance to students in an accredited post-secondary or post-graduate program at a degree-granting institution in BC. Applicants must be enrolled in at least the third year of a program directly related to the practice of forest engineering and/or geoscience/geotechnique, leading to membership in the APEG of BC. Applicants must submit a covering letter, an official transcript and a paper/essay on any topic related to the field of forest engineering and/or forest geoscience/geotechnique.

Contact: DEGISFS Bursary Sub-committee, c/o APEGBC, 200-4010 Regent St., Burnaby BC, V5C 6N2.

Email: brian.chow@gems3.gov.bc.ca

Web: www.degifs.com

James M. Harrison Bursary

Deadline: June 1

Terms of reference: The objective of this bursary is to assist a student from the Northwest Territories to obtain an education in the natural sciences to be applied to future work in the Northwest Territories. Selection is based upon future aspirations of the applicant for a career within the Northwest Territories, academic record and financial need. Applicants must be entering graduate school or in third or fourth year of undergraduate studies as a full-time student in the
natural sciences at a Canadian University or College or the University of Alaska. Applicants must also have been resident in the Northwest Territories for at least five years.

Contact: Executive Director, Science Institute of the Northwest Territories, Box 1617, Yellowknife NT, X1A 2P2.

External Bursaries for Arts and Social Sciences Students

National Aboriginal Achievement Foundation

Fine Arts Program

Deadline: March 31 & September 30

Terms of reference: The NAAF continues its support of Aboriginal students who enrolled in undergraduate and graduate programs at accredited Canadian universities or technical colleges in fields such as visual or media arts, music, theatre, dance, and other creative pursuits that support fine arts activities such as arts administration, stage management, or sound engineering, as well as marketing studies and such other studies that promote the self-employment and entrepreneurial skills of the arts.

Contact: The National Aboriginal Achievement Foundation, Suite 32A, 70 Yorkville Avenue, Toronto ON, M5R 1B9, Tel: (416) 926-0775, Toll Free: 1-800-329-9780, Fax: (416) 926-7554.

Email: education@naaf.ca

Web: www.naaf.ca

External Bursaries for Science Students

Canadian Women in Timber Fraser Valley Branch Bursary

Deadline: Unknown

Terms of reference: Canadian Women in Timber is a non-profit society formed to further the education of forestry in all its aspects. The Fraser Valley Branch of Canadian Women in Timber is pleased to announce the provision of a $1,000 Bursary to a student who was born in and/or educated in the regional district of Fraser Creek, and is in the second year of a recognized forestry program at a post secondary institution in BC.

Contact: Canadian Women in Timber, Fraser Valley Branch, #21-46244 Airport Road, Chilliwack BC, V2P 1A5.

Division of Engineers and Geoscientists for the Forest Sector Bursaries

Deadline: May 3

Terms of reference: The Division of Engineers and Geoscientists for the Forest Sector (DEGISF) is pleased to offer bursaries, aimed at advancing forest engineering and geoscience/geotechnique education in BC. The bursaries are intended to provide nominal financial assistant to students, in an accredited post-secondary or post-graduate program at a degree-granting institution in BC. Applicants must be enrolled in at least the third year of a program directly related to the practice of forest engineering and/or geoscience/geotechnique, leading to membership in the APEG of BC. Applicants must submit a covering letter, an official transcript and a paper/essay on any topic related to the field of forest engineering and/or forest geoscience/geotechnique.

Contact: DEGISF Bursary Sub-committee, c/o APEGBGC, 200-4010 Regent St., Burnaby BC, V5C 6N2.

Email: brian.chow@gem3.gov.bc.ca

Web: www.degisf.com

James M. Harrison Bursary

Deadline: June

Terms of reference: The objective of this bursary is to assist a student from the Northwest Territories to obtain an education in the natural sciences to be applied to future work in the Northwest Territories. Selection is based upon future aspirations of the applicant for a career within the Northwest Territories, academic record and financial need. Applicants must be entering graduate school or in third or fourth year of undergraduate studies as a full-time student in the natural sciences at a Canadian University or College or the University of Alaska. Applicants must also have been resident in the Northwest Territories for at least five years.

Contact: Executive Director, Science Institute of the Northwest Territories, Box 1617, Yellowknife NT, X1A 2P2.

Externally Administered Awards

The following awards are not administered by Simon Fraser University. The information is intended for general reference only; it may be subject to change. The student is responsible for enquiring and applying through the appropriate agency as indicated in the description.

External Awards for All Students

As Prime Minister Awards

Deadline: June 4

Terms of reference: The As Prime Minister Awards program invites university, college and CEQEP students to write an essay in response to the question “If you were the Prime Minister of Canada, what political vision would you offer to improve our living standards and ensure a secure and prosperous global community?” Students essay are judged on the merits of practical, solution driven and innovative proposals that demonstrate defensible, realistic visions and ideas. Recognition of your extra-curricular activities, academic grades and essay composition will also be reviewed. Applicants must be full-time students at an accredited Canadian college or university. Submit a maximum 2,500-word essay in either official language. You may choose to register and submit your essay electronically on-line at www.asprimeminister.com. You may submit your essay type-written on 8.5’x 11” paper. Additional rules and regulations can be obtained on the website.

Contact: Magna for Canada Scholarship Fund, 337 Magna Drive, Aurora ON, L4G 7K1, Tel: 1-866-278-4376, (905) 726-2462, Fax: (905) 726-7177.

Web: www.asprimeminister.com

BC Press Council Prize

Deadline: May 28

Terms of reference: The British Columbia Press Council wants young British Columbians to think about the press and the important role journalism plays in a free democratic society. The BC Press Council Prize has been established – two awards of $1,000 each for the best essay submitted by both secondary and post-secondary students in the province. Two categories: 1) high school students, will have a 1,500 word limit, and 2) college and university students, will have a 2,500 word limit. Entries must be typed, double-spaced and presented in the form of a formal essay.

Contact: British Columbia Press Council, 201-1290 Broad Street, Victoria BC, V8W 2A5, Tel: (250) 394-3344.

Book Promoters’ Association of Canada Bursary

Deadline: May 15

Terms of reference: The Janice Hanford Memorial Bursary will be awarded to a student whose primary interest is book marketing, promotion or publicity. The purpose of the bursary is to assist a student attending Simon Fraser University’s Book Publishing Workshop. Applicants must write a press release about their favourite book. Applications are accepted from both publishing program students and those already employed in the industry.

Contact: Stephanie Cunningham at pubworks@sfu.ca or phone 604-291-5241.

Email: pubworks@sfu.ca

Web: www.bpacanada.org

Canada Council For the Arts MolsonPrizes

Deadline: December 1

Terms of reference: The Canada Council for the Arts Molson Prizes, in the amount of $50,000 each, are awarded annually to two distinguished individuals (one in the arts, one in the social sciences and humanities). The prizes are intended to encourage continuing contribution to the cultural and intellectual heritage of Canada. Candidates must be Canadian citizens or permanent residents of Canada and must be nominated by three individuals or three organizations, in a combination thereof.

Contact: Carol Bream, Director, Endowments and Prizes Unit, 1-800-263-5588, ext 5041 or (613) 566-4414, ext. 5041, Fax: (613) 566-4407.

Email: prizes.endowments@canadacouncil.ca

Web: www.canadacouncil.ca

Canadian Blood Services Summer Internship Program

Deadline: January 31

Terms of reference: Canadian Blood Services (CBS) offers a Summer Internship Program to attract and support students at Canadian’s post-secondary institutions to contribute to, and experience from, working on projects within any division of CBS. This program is offered to students from any field relevant to the business of CBS. Candidates are required to submit a completed application form (SIP-01) that is available at www.bloodservices.ca (click on R&D).

Contact: Administrative Assistant, R&D, Canadian Blood Services, 1800 Alta Vista Drive, Ottawa ON, K1G 4JS, Tel: 613-739-2230, Fax: 613-731-2201.

Web: www.bloodservices.ca

Canadian Bureau for International Education International Learning Grants

Deadline: December 1

Terms of reference: International Learning Grants are grants to allow students to finance the additional costs associated with international learning. Canadian citizens and permanent residents enrolled full-time at a CBEI member institution are eligible to apply. Applicants must be accepted in an exchange program organized by their college, university or secondary school board. Selection is based on the innovativeness of the program, relevance to your future international education career and potential to contribute to global understanding, as well as need, merit and personal suitability. Programs may be study, study-internships or internships. Research only programs are not eligible.

Contact: Canadian Bureau for International Education, 220 Laurier Ave. West, Suite 1100, Ottawa ON, K1P 5Z9, Tel: (613) 237-4820, ext. 242, Fax: (613) 237-1073.

Email: flepage@cbie.ca

Web: www.cbie.ca

Canadian Cystic Fibrosis Foundation Summer Student Research Program

Deadline: February 1

Terms of reference: This program provides support for a student to work on a cystic fibrosis project during the summer semester. Full-time students pursuing an undergraduate degree in an appropriate discipline are eligible to receive this award. Students participating in this program must submit a report describing their summer project, no later than 28 September.

Contact: Medical/Scientific Advisory Committee, Canadian Cystic Fibrosis Foundation, 2221 Yonge Street, Suite 601, Toronto ON, M4S 2B4, Tel: (416) 485-9149, 1-800-378-2233, Fax: (416) 485-0860.

Email: info@ccff.ca

Web: www.ccff.ca

Canadian Dam Association Scholarship

Deadline: unknown

Terms of reference: This program provides support for a student to work on a dam engineering project during the summer semester. Full-time students pursuing an undergraduate degree in an appropriate discipline are eligible to receive this award. Students participating in this program must submit a report describing their summer project, no later than 28 September.

Contact: Canadian Dam Association, Suite 602, 1900 Yonge Street, Toronto ON, M4S 2B4, Tel: (416) 485-9149, 1-800-378-2233, Fax: (416) 485-0860.

Email: info@ccff.ca

Web: www.ccff.ca
Terms of reference: The Canadian Dam Association (CDA) is inviting graduate and final-year undergraduate students to submit a two-page summary of their current research on the topic of dams and riparian structures. The summary can relate to one of the following topics: dam safety, earthquake and flood response, risk analysis, materials and construction aspects, ageing and rehabilitation techniques, environmental and social impact, financing and economics of hydraulic projects, tailings dams. In addition, a one-page introductory text must indicate the motivation of the student to participate at the CIGB-ICOLD Congress. A committee will review the submissions by students registered in Canadian Universities, based on quality of summary, originality and pertinence of the research and student's motivation to participate. Two winners will be selected to participate at the Montreal Congress.

Contact: Mr. Yves Graton, Director, Technical Program and Study Tours Committee, CIGB-ICOLD Montreal 2003, 75 West Rene-Levesque Boulevard, 10th floor, Montreal QC, H2Z 1A4, Tel: (514) 289-4522, Fax: (514) 289-4599.

Email: graton@hydro.gc.ca

Web: www.cihr.ca

Canadian Federation of University Women Parksville/Qualicum – Grace D’Arcy Memorial Award
Deadline: June 1

Terms of reference: The award is open to women from the Parksville/Qualicum area, District 69 who are entering their second year of study or beyond in a university academic program and have been accepted by a Canadian university.

Contact: The Secretary of the Scholarship Trust, C.F.U.W. – Parksville/Qualicum, P.O. Box 113, Qualicum Beach BC, V9K 1S7.

Email: yves@hydro.gc.ca

Web: www.macn.bc.ca/~cfuw

Canadian Federation of University Women Parksville/Qualicum Memorial Award
Deadline: June 1

Terms of reference: The award is open to women from the Parksville/Qualicum area, District 69 who are entering their second year of study or beyond in a university academic program and have been accepted by a Canadian university.

Contact: The Secretary of the Scholarship Trust, C.F.U.W. – Parksville/Qualicum, P.O. Box 113, Qualicum Beach BC, V9K 1S7.

Email: yves@hydro.gc.ca

Web: www.macn.bc.ca/~cfuw

Canadian Institutes of Health Research (CIHR) Science Writer Scholarships
Deadline: March

Terms of reference: CIHR has established scholarships at both undergraduate and graduate levels to increase the number of Canadian science writers engaged in communicating the findings and implications of health research. Undergraduate Science Writer Scholarship and Internships will be open to university students enrolled in a third or fourth year undergraduate program in the liberal arts (e.g. communications, journalism, history, literature, psychology, etc.) with a science minor. Students in a science program who have demonstrated an aptitude for writing are also eligible. All applicants must have previous work experience, either paid or volunteer, where science writing was a major part of the assignment. Graduate Science Writer Scholarships will be open to those who have completed one or more degrees related to human health and who have been accepted into a journalism or communications degree program.

Contact: Application forms are available from the CIHR website at www.cihr.ca.

Email: sw-undergrad@cihr.ca

Web: www.cihr.ca

Canadian Mine Action Research Program
Deadline: November 1

Terms of reference: Canada’s Mine Action Team, in co-operation with York University and Mines Action Canada, is supporting policy relevant research in three areas related to the implementation of the Ottawa Convention: universalizing the ban on the production, stockpiling, trade and use of anti-personnel mines; clearing mined land; and assisting mine victims and their communities. The awards are open to students enrolled in Canadian universities in the final year of a (minimum) four-year undergraduate program, all Law students, all Master’s students, and any PhD students who have not yet completed their grants in the range of $500 to $800 dollars set up in order to help defray travel costs in connection with shorter research/study visits to Scandinavia.

Contact: Jan O. Lundgren, CSF Secretary, c/o Geography Department, McGill University, 805 Sherbrooke Street W., Montreal QC, H3A 2K6, Tel: (514) 398-4111, Fax: (514) 398-7437.

Email: lundgren@felix.geog.mcgill.ca

Web: www.mines.gc.ca

Canadian-Scandinavian Foundation Special Purpose Grant
Deadline: January 31

Terms of reference: The CSF Special Purpose grants are small travel grants in the range of $500 to $800 dollars set up in order to help defray travel costs in connection with shorter research/study visits to Scandinavia.

Contact: Emilia A. Dalziel, President, Canadian-Scandinavian Foundation, 325-108 Sherbrook Street, MTL, QC, H3A 1M7, Tel: (514) 398-4111, Fax: (514) 398-7437.

Email: info@csf-fsf.ca

Web: www.canadascandinavian.org

Centennial Flame Research Award for Persons with Disabilities
Deadline: March 31

Terms of reference: The recipient of the Award will have one year in which to prepare a report focusing on the public achievements of one or more disabled Canadians. Value: $2,500. Any Canadian citizen with a disability wishing to apply for the Award should submit an outline of his or her proposed research project to the Clerk of the Committee. The research report for the Centennial Flame Research Award must deal with the contribution of a disabled person (or persons) to public life in Canada or the activities of Parliament. The applicant may submit his or her outline in any medium. The submission must contain a brief background of the applicant, including current employment, if any; an outline of the subject of the research; the significance of this choice; and a description of how the research will be undertaken. Each submission should be accompanied by a letter of support from a person selected by the applicant.

Contact: The Clerk, Standing Committee on Human Rights and the Status of Disabled Persons, Tel: (613) 996-4683, Fax: (613) 996-1962.

Roger Charest, Sr. Award for Broadcast & Media Arts (URDC)
Deadline: November 30

Terms of reference: The Roger Charest Sr. Award for Broadcast & Media Arts is an annual award available to faculty of the Schulich School of Music for outstanding work in the field of broadcast and media arts.

Contact: URDC, 3655 Peel Street, Montreal, Quebec H3A 1S6, Tel: (514) 398-4111, Fax: (514) 398-7437.

Email: info@chumirethicsfoundation.ca

Web: www.chumirethicsfoundation.ca

CIBC Youthvission Graduate Research Award Program
Deadline: February 1

Terms of reference: Research awards will be offered in recognition of academic excellence and to support and encourage research in specialized fields of study related to community economic development. Candidates must be Canadian citizens or permanent residents at the time of application and must hold a Bachelor’s degree in a related field with a record of high academic achievement. Applicants must be working towards a master’s or doctoral degree (a full-time basis) on the subject related to community economic development with a focus on youth employment.

Contact: CIBC, 3655 Peel Street, Montreal, Quebec H3A 1S6, Tel: (514) 398-4111, Fax: (514) 398-7437.

Email: yciss@yorku.ca

Web: www.yorku.ca/yciss/
Email: awards@aucc.ca    
Web: www.aucc.ca

Arctic Co-operative Award – Canadian Northern Studies Trust
Deadline: January 31

Terms of reference: This objective of the award is to encourage individuals undertaking studies which contribute to the understanding and development of Arctic Co-operatives in Nunavut, the Northwest Territories, and/or northern Manitoba. Such studies may result in a paper or thesis on the subject. The award may be held concurrently with a Canadian Northern Studies Trust Special Bursary for Northern Residents. Applicants must be Canadian citizens or permanent residents of Canada, and enrolled at a recognized Canadian community college or university. In making the selection for the award, preference will be given to northern residents.

Contact: Association of Canadian Universities for Northern Studies (ACUNS), 17 York Street, Suite 405, Ottawa ON, K1N 9J6, Tel: (613) 562-0515, Fax: (613) 562-0533.
Email: acuns@cyberus.ca    
Web: www.cyberus.ca/~acuns

Corbiere-Lavel/Two Axe Early Award
Deadline: July 1

Terms of reference: Two awards of $1,000 are available to Aboriginal women of First Nations/Metis descent. To be eligible for the award, you must be pursuing post-secondary studies, or just completing your studies and have demonstrated a commitment to bettering the socio-economic, legal and cultural status of Aboriginal women. Given upon recommendation of a Provincial or Territorial Native Women’s Association member.

Contact: NWAC Executive Council, Native Women’s Association of Canada, 9 Melrose Rose, Ottawa ON, K1Y 1T8, Tel: (613) 722-3033, Fax: (613) 722-7687, Toll Free: (800) 461-4034.

DAAD German Academic Exchange Service
Deadline: October 2

Terms of reference: The German Academic Exchange Service (DAAD) offers Annual Grants to highly qualified graduate students and graduating seniors for study and/or research at universities in the Federal Republic of Germany. Applicants must be United States or Canadian citizens enrolled full time at DAAD partner institutions. Applicants should also possess a working knowledge of the German language. Scholarships are granted for ten months (October – July).

Contact: DAAD German Academic Exchange Service, 950 Third Avenue, New York, NY 10022, Tel: (212) 758-3233, Fax: (212) 755-5780. 
Email: daadny@daad.org    
Web: www.daad.org

Dalton Camp Award
Deadline: March 31

Terms of reference: The award was established by Friends of Canadian Broadcasting to encourage and recognize excellence in essay-writing on the link between democratic values and the quality of the media in Canada. Consult rules and entry details on website.

Contact: Friends of Canadian Broadcasting, Box 200/238 131 Bloor Street West, Toronto ON, M5S1R8.
Email: submission@daltoncampaward.ca    
Web: www.daltoncamp.ca

Davies Charitable Foundation Fellowship Proposal
Deadline: April 15

Terms of reference: Established by the Davies Charitable Foundation and awarded on the basis of academic excellence for a year of study/research at the post-doctoral or fellowship level. Applicants must have been born in the Kingston, Ontario area or have resided in the area for at least five years prior to the student’s 20th birthday. The fellowship is tenable in all disciplines and at the University of the student’s choice.

Contact: The Davies Charitable Foundation, 245 Alwington Place, Kingston ON, K7L 4P9, Tel: (613) 546-4000 or 1-800-472-4796. 
Email: daviesfoundation@cgeco.ca

Department of Justice Canada: Financial Assistance
Deadline: Summer Program: April 1; Three-year Program: June 1

Terms of reference: The Department of Justice Canada provides financial assistance to Metis and non-status Indian students to help them become lawyers. Funds of up to 10 students each year to attend a two-month summer course offered by the University of Saskatchewan’s Native Law Centre for students who may not have the minimum academic requirements for law school. Francophone students who are unable to follow this course may be recommended for a one-year pre-law program. 

Law: Each year, approximately 10 three-year grants are awarded to students who have been accepted into a Canadian Law School.

After Law School: The Department may award financial assistance to a student wishing to pursue a Master’s degree in Canada or abroad. Assistance is provided for the Bar Admission only in cases of severe financial difficulty.

Eligibility: an applicant must be a First Nations person of Canadian citizenship living in Canada who is registered or conditionally registered in one of the courses of study described above. The financial assistance is normally provided through a living allowance, payment of tuition fees, text book allowance and other allowances.

Contact: Chief, Native Programs, Department of Justice Canada, Justice Building, Ottawa ON, K1A 0H8, Tel: (613) 957-9636.

The Duke of Edinburgh’s Award
Deadline: March 25

Terms of reference: The Duke of Edinburgh’s Award is: 

• An international youth program for ages 14-25. 

• Open to all young people. Participants do not compete with others – only themselves. If participation is in a group, the group may do different things if they wish. There is also a minimum time that they must be involved in the three levels but they can take as long as they like up to age 25. 

• Participants can do the Award as a member of a youth group/organization such as Scouts, Guides, Cadets, church youth group, school etc., or they can work on the Award as an independent. 

• Each participant requires their own Record Book ($3.00). Leaders need a Handbook ($3.00) and if a participant is working on their own they may want a Handbook as well. 

• To start, just contact the Award office or call collect. 

• Nothing starts counting for the Award until registration. (Then only what is done after registration counts.) 

• To start the Bronze level: Age 14, To start Silver level: Age 15, To start Gold level: Age 16. 

• When the Bronze, Silver or Gold Award is approved, there is a Certificate and Pin to be presented at an appropriate occasion. 

Contact: The Duke of Edinburgh’s Award, 212-633 Courtney Street, Victoria BC, V8W 1B8, Tel: (604) 682-5543 or (250) 385-4232.

J.M. Ellis Innovative Map of the Year – Canadian Institute of Geomatics
Deadline: March 1

Terms of reference: The award is intended to promote interest in, and to recognize excellence of, creative design in cartography. Annually, the award will highlight one map in a significant design advances. The competition is open to all Canadian residents, private firms, federal, provincial, and municipal agencies producing and publishing maps. Contact: The Chair, Geomatics Canada Scholarship Program, c/o Canadian Institute of Geomatics, Suite 120, 162 Cleopatra Drive, Nepean ON, K2G 5X2, Tel: (613) 224-9851, Fax: (613) 224-9577.

Excellence in Canadian Work-Family Research Awards
Deadline: February 28

Terms of reference: The purpose of the awards is to encourage the development of the literature in work and family, to increase knowledge of interdisciplinary efforts, and to support and encourage new scholars in the Canadian context. All students registered at Canadian Universities, who have written a paper on a topic related to work-family issues in the Canadian (or comparative) context, are eligible for these awards. The first place authors will receive $1000 for best undergraduate paper, and $2000 for best graduate paper. A minimum of two faculty members must review and recommend a student’s paper for submission. As a condition of the award, the successful recipient will grant the Centre for Families, Work & Well-Being permission to reprint the article in future publication.

Contact: Linda Hawkins, Executive Director, Centre for Families, Work & Well-Being, Room 900, MacKinnon Building, University of Guelph, Guelph ON, N1G 2W1, Tel: (519) 824-4120, ext. 3829, Fax: (519) 823-1389. 
Email: lhawkin@uoguelph.ca    
Web: www.worklifecanada.ca

J. Douglas Ferguson Historical Research Foundation
Deadline: October 15

Terms of reference: The J. Douglas Ferguson Historical Research Foundation offers two competitions for student essays. One award for $1000 will be made to the author of the best post-graduate essay and two others, for $750 each, will go to the undergraduates who write the best essays. To be eligible for an award, applicants must either be enrolled in a post-graduate program (MA, MSc or PhD) or undergraduate program (BA, BSc) at a Canadian university. The essays should have significant relevance for numismatics. This would include essays in history, art history, archaeology or classics for which coins, tokens, jetons, paper money, cheques or medals provide an important source of evidence as well as essays in banking history, monetary history, medallic engraving, or the technology and metallurgy of coinage. Although students are encouraged to select topics relevant to Canadian numismatics, essays on ancient, medieval, or modern international topics are also eligible. The essays may have been submitted in a course or may represent new work. Include also a short resume. Winning essays in both categories will be published in the Canadian journal most relevant to their topics. Contact: The J. Douglas Ferguson Historical Research Foundation, 654 Hsiawatha Blvd., Ancaster ON, L9G 3A5.

The Foundation for the Advancement of Aboriginal Youth
Deadline: September 15

Terms of reference: The awards, valued at $1,000 each, are awarded to a student or returning student of Aboriginal descent and residents of Canada. Applicants must be enrolled and accepted in a first, second, or third year college or university program, preferably in the areas of accountancy, marketing, medical or technology. Consideration will be given to applicants who have made contributions to their community by volunteering or providing a leadership role for educational goals and a potential career choice in the future. Applicants should include evidence as well as essays in banking history, monetary history, medallic engraving, or the technology and metallurgy of coinage. Although students are encouraged to select topics relevant to Canadian numismatics, essays on ancient, medieval, or modern international topics are also eligible. The essays may have been submitted in a course or may represent new work. Include also a short resume. Winning essays in both categories will be published in the Canadian journal most relevant to their topics. Contact: The J. Douglas Ferguson Historical Research Foundation, 654 Hsiawatha Blvd., Ancaster ON, L9G 3A5.
form; two letters of reference (no relatives), one personal and one academic, and a letter from an educational institution indicating confirmation of registration or a photocopy of school application form. Contact: Brenda Maracle O’Toole, National Director, FAAY, 204 St. George Street, 2nd Floor, Toronto ON, M5R 2N5, Tel: (416) 961-8683, Fax: (416) 961-3995, Toll Free: (800) 465-7078.

The Canada-U.S. Fulbright Program
Deadline: November 15
Terms of reference: The Canada-US Fulbright awards offer scholars in Canada and the United States a unique opportunity to explore questions relating to the study of Canada and the United States and the relationship between the two countries. Applications in the following areas are especially encouraged: Canada-US relations, Canadian studies, public policy, including those areas of science, technology and health that bear on the program’s mission, international trade, North American economic integration, urban and regional planning, communications, culture, ecology and the environment, indigenous issues, law and border issues.
FULBRIGHT SCHOLAR AWARDS are for faculty members, post-doctoral researchers and experienced professionals who wish to lecture, conduct research or undertake a combination of both activities at an American or Canadian institution.
FULBRIGHT STUDENT AWARDS are intended for graduate students, prospective graduate students, graduating seniors and junior professionals who wish to study or conduct research at an American or Canadian institution.
FULBRIGHT-OAS ECOLOGY AWARDS provides funding for Canadians interested in pursuing master's or doctoral level studies in environmental studies and sustainable development in the United States. Scholars in the fields of natural sciences, social sciences and public policy are encouraged to apply. Contact: Foundation for Educational Exchange Between Canada and the United States of America, 350 Albert Street, Suite 2015, Ottawa, ON K1R 1A4, Tel: (613) 237-5366, Fax: (613) 237-2029. Email: info@fulbright.ca
Web: www.fulbright.ca

Global Student Entrepreneur Awards
Deadline: March 1
Terms of reference: The program recognizes and rewards entrepreneurial efforts of undergraduates enrolled at universities across the globe. To be eligible an undergraduate student must be enrolled in full time studies at the time of application and be a business owner who has primary responsibility for the management and operations of the for-profit business. Visit website for detailed application information.
Web: www.gsea.org

Global Television Network Aboriginal Peoples Internship Award
Deadline: July 29
Terms of reference: This annual Internship Award offers an Aboriginal Canadian a challenging opportunity to work in private television, in pursuit of a career in broadcasting. The award, valued at $10,000, places the award recipient in a four month Internship program at any one of the Global Television stations where the award recipient will be paid on a salary basis for the summer. The applicant must be an Aboriginal Canadian, have minimum education at secondary school graduate, have interest in, and aptitude for, a career in the broadcasting industry, and have strong English language communication skills. Contact: Global Television Network, 81 Barber Greene Road, Toronto ON, M3C 2A2, Tel: 1-800-387-8001, Fax: (416) 442-3377.

The Grant For Women Awards – Soroptimist Foundation of Canada
Deadline: January 31
Terms of reference: The Soroptimist Foundation of Canada annually offers several $7500 grants to female graduate students in Canada to assist them with university studies, which will qualify them for careers, which will improve the quality of women's lives. Applicant must be: 1) a female, 2) a Canadian citizen or landed immigrant, 3) registered in a graduate or graduate level or professional program of studies in an accredited Canadian university, 4) pursuing a course of studies which will lead to a career mainly of service to women, 5) intending to spend a minimum of two years in such a career in Canada 6) intending to use the award in the academic year following receipt of it. Contact: E. Jean Farquharson, Manager, S.F.C. Grants for Women, Western Canada, 1055 Comox Road, Courtenay BC, V9N 3P7, Tel: (250) 338-8419. Web: www.soroptimistfoundation.ca

Elizabeth Greenshields Foundation Award
Deadline: unknown
Terms of reference: The purpose of the Foundation is to aid artists in the early stages of their careers. Awards are given to candidates working in the following: painting, drawing, printmaking, sculpture. Work must be representational. Candidates must have already started or completed art school training or demonstrate, through past work and future plans, a commitment to making art a lifetime career. Refer to application form for application instructions. The foundation welcomes applications throughout the year. Contact: Elizabeth Greenshields Foundation, 1814 Sherbrooke Street West, Suite #1, Montreal QC, H3H 1E4, Tel: (514) 937-9225, Fax: (514) 937-0141. Email: egreen@total.net

Gulf and Fraser Credit Union – Robert F. Long Educational Award
Deadline: September 1
Terms of reference: The applicant must be a member, or the child of a member, of Gulf & Fraser Credit Union, and that the successful applicant be enrolled at a University or Technical Institute. An official transcript of your most recent marks must be submitted. Contact: Gulf and Fraser Credit Union, 803 East Hastings Street, Vancouver BC, V6A 1R8, Tel: (604) 254-7270, Fax: (604) 254-7332.

Heart and Stroke Foundation of BC and Yukon
Deadline: February 15
Terms of reference: The Heart and Stroke Foundation is now offering a limited number of Summer Research Studentships positions to academically excellent university students not currently registered in or undertaking studies toward a graduate degree. The objective of this program is to allow talented students to become acquainted with cardiovascular and cerebrovascular related research. To be eligible for this program, the student must currently be registered in a British Columbia university or college. It is open to undergraduate and medical students with a GPA of 3.5 or higher.
Contact: Research Department, Heart and Stroke Foundation of BC and Yukon, 12122 West Broadway, Vancouver BC, V6H 3V2, Tel: (604) 736-3401, Toll Free: 1-888-473-4636, Fax: (604) 736-8732. Email: kjang@hst.bc.ca
Web: www.hst.bc.ca

Heroes of Our Time
Deadline: June 15
Terms of reference: There are seven awards in the amount of $2,000 each for First Nations citizens at the post-secondary level who have completed at least one year and have demonstrated exceptional academic abilities. Applicants must be actively involved within the First Nations community. Contact: Assembly of First Nations Resource Centre, Heroes of Our Time Awards, 10th Flr, 1 Nicholas Street, Ottawa ON, K1N 7S7, Tel: (613) 241-6789.

Holstein Canada Education Awards
Deadline: October 15
Terms of reference: Awards are offered to students who are either members of or son/daughter of members of the Holstein Canada. Applicants must have completed at least one year of study at a university/college. An official transcript must be included with the application. Contact: Holstein Association of Canada, Box 610, Brampton ON, N3T 5R4, Tel: (519) 756-8300, Fax: (519) 756-8982. Web: www.holstein.ca/english/Youth/edaward.asp

Husky Oil Education Awards for Native People
Deadline: June 15
Terms of reference: There are 4 awards in the amount of $3,000 each for students who have lived in B.C., Alberta or Saskatchewan for at least one year prior to applying, who are in need of financial assistance and demonstrate a serious interest in the oil industry. Applicant must include a transcript and a letter of acceptance from the school with the application form. Contact: Staffing, Husky Oil, PO Box 6525, Station D, Calgary AB, T2P 3G7, Tel: (403) 298-6111.

Imperial Oil Resources – Native Educational Awards Program
Deadline: June 15
Terms of reference: Three awards of up to $4,500 each are given to people of First Nations ancestry beginning post-secondary studies. The purpose of the awards is to encourage and assist people of First Nations ancestry to pursue undergraduate post-secondary educational studies in disciplines relevant to the petroleum industry. The awards may be renewable for an additional three years. The competition is open to: First Nations – status and non-status, Inuit and Metis students; residents of BC, Alberta, Saskatchewan, the Yukon or the Northwest Territories; those who can provide proof of acceptance to an eligible post-secondary educational institution; those who will pursue studies in the following disciplines: engineering, commerce/business, geology, geophysics, computer science or petroleum land management; those who will register in a program of studies leading to a recognized degree, certificate or diploma; those who are in need of financial assistance to pursue post-secondary studies; those who are academically qualified.
Contact: Native Educational Awards Coordinator, Imperial Oil Resources Ltd., 37 4th Avenue SW, Calgary AB, T2P 0H6, Tel: (403) 237-3737, Fax: (403) 237-4017.

Indian and Northern Affairs Canada
Post-Secondary Student Support Program
Deadline: February 28
Terms of reference: To be eligible you must be Inuit or registered as Indian, have lived in Canada for the past year and have met a university's or college's entrance requirements, have been accepted into university or college for a program of studies. This funding is open to both full-time and part-time students and you must be registered in at least a year-long course to receive funding. Indian and Northern Affairs Canada (INAC) defines the limits of funding every year. You can also apply for the following funding in addition to the above programs:
 • Monetary Incentives – for post-graduate or professional degree student payments of up to 1,500 for continuing with studies
 • Strategic Scholarships – for students of commerce, public or business administration, economics, applied and physical science, mathematics,

Simon Fraser University 2005 • 2006
Undergraduate

more than 180 countries. These programs can be categorized as: 1) Support for exchange persons, 2) Support for Japanese-language education, 3) Support for Japanese studies, 4) Support for arts-related exchange and 5) Support for media exchange. Refer to program guide for detail information.

Contact: The Japan Foundation Tokyo, 131 Bloor Street West, Suite 213, Toronto ON, M5S 1R1, Tel: (416) 966-1686; Fax: (416) 966-9733 or (604) 684-5868, ext 240.
Email: info@jftor.org
Web: www.japanfoundationcanada.org

The Japan Exchange and Teaching Program (JET)
Deadline: November 26
Terms of reference: The Japan Exchange and Teaching (JET) Program invites young college and university graduates from overseas to participate in international exchange and foreign language education throughout Japan. The JET participants are invited to Japan, and are placed in host institutions throughout the country. The JET participants sign contracts with their host institutions. Contracts are for one year. The JET program offers three types of positions: CIR (Cultural Information Relations), Assistant Language Teacher (ALT) and Sports Exchange Advisor (SEA). For further information, please contact Embassy of Japan or Consulate General of Japan.

Contact: Consulate General of Japan, 900-1177 West Hastings Street, Vancouver BC, V6E 2K9, Tel: (604) 684-5868 ext. 240, 255, Fax: (604) 684-6939.
Email: programs@consuljpnvan.com
Web: www.jftor.org

Kobzar Literary Award – Ukrainian Canadian Foundation of Taras Shevchenko
Deadline: May 13
Terms of reference: The award will recognize outstanding contributions to Canadian literature through the author’s representation of a Ukrainian Canadian theme. Authors must be either Canadian citizens or landed immigrants. Submissions may be tendered in English, French or Ukrainian.

Contact: Ukrainian Canadian Foundation of Taras Shevchenko, 456 Main Street, Winnipeg, MB, R3B 1B6, Tel: 1-866-524-5314, 204-944-9128, Fax: 204-944-9135.
Email: lesia@shevchenkofoundation.ca
Web: www.shevchenkofoundation.com

Pam Koczapska Memorial Award
Deadline: May 1
Terms of reference: Up to $1,000 awards, the Pam Koczapska Memorial Award will honor students planning a career in education or in any professional field that will benefit the Upper Slo’lo people.

Financial need is considered. Application must include a transcript of grades or a letter from someone from your school stating your grades, a letter of recommendation and a letter explaining your goals and expectations.

Contact: sto’lo Sitel Advisory Committee, Coqualeetza Centre, Box 370, Sardis BC, V2R 1A7, Tel: (604) 858-9431, Fax: (604) 858-8488.

Kodak Fellowship in Film Preservation – Association of Moving Image Archivists
Deadline: May 1
Terms of reference: The Kodak Fellowship is designed to advance the education and training of a student of merit who intends to pursue a career in the profession of moving image archiving.

Applicant must be enrolled in a graduate level or other advanced program in film or television studies or production, library or information services, archival administration, museum studies or a related discipline; or must be accepted into such a program for the next academic year.

Contact: AMIA, 1313 North Vine Street, Hollywood, CA 90028, Tel: (323) 463-1500, Fax: (323) 463-1506.
Email: amia@amianet.org
Web: www.amianet.org

Learning Through Service Program
Deadline: June 30
Terms of reference: The goal of the program is to enable a limited number of Canadian undergraduate students in any field, to undertake a semester-long work assignment of international practicum in a developing country as part of their academic program at a Canadian university. The objective will be to provide hands-on experience of living and working in developing countries, increasing knowledge of development, other cultures, traditions and practices among Canadian students. The program is sponsored by the Canadian International Development Agency (CIDA).

Contact: Canadian Awards Program, Association of Universities and Colleges of Canada (AUCC), 350 Albert St., Suite 600, Ottawa ON, K1R 1B1, Tel: (613) 563-1236, Fax: (613) 563-9745.
Email: awards@aucc.ca
Web: www.aucc.ca

Raymond A. LeClair Memorial Scholarship Award (Coquitlam Foundation)
Deadline: February 11
Terms of reference: The successful applicant must be a resident of the City of Coquitlam, have achieved
good academic standing, have a history of school and/or community involvement, demonstrate an ability to successfully undertake a program of studies, attend an interview with the selection committee, begin designated studies within eight months of formal notification of selection and submit a written report upon completion of the applicable terms of studies. Applications must include a letter of application, which should include a statement outlining why the applicant merits the award, completed application form, a resume, a copy of appropriate school transcript and two letters of reference.

Contact: Grants Committee Chair, Coquitlam Foundation, PO Box 2, 1207 Pinetree Way, Coquitlam BC, V3B 7Y3, Tel: (604) 927-3006, Fax: (604) 927-3015.

Mungo Martin Memorial Award

 Deadline: August 1

 Terms of reference: Ten to fifteen awards of $200 to $500 are given annually, based on the number of successful applicants. Applicants must be of First Nations ancestry and a full-time student. Applications must include a completed application, a recent transcript of marks and two letter so reference. Contact: President, Mungo Martin Memorial Awards, Society, Box 883, Qualicum Beach BC, V9K 1T2, Fax: (250) 752-3076.

Lois McConkey Memorial Fellowship

Deadline: unknown

Terms of reference: This award may be made annually to a student who would benefit from an established work-study program at the Museum of Anthropology, and may be supplemented by other funds when available. To receive more information or to apply, forward a resume and letter of interest to the awards committee at the address below, outlining the work study program you would like to pursue.

Contact: Awards Committee, c/o Anne-Marie Fenger, UBC Museum of Anthropology, 6393 NW Marine Drive, Vancouver BC, V6T 1Z2, Tel: (604) 222-5567, Fax: (604) 822-2974.

The Military and Hospitaller Order of Saint Lazarus of Jerusalem Grand Prior in Canada

Deadline: March 15

Terms of reference: The Military and Hospitaller Order of Saint Lazarus of Jerusalem is sponsoring an essay competition on the subject of Canadian unity. The author of the winning essay will be eligible for an award of $2,000. A second place award of $500 will also be awarded. Essays may be submitted in either official language, maximum length of 2000 words typed. Entrants must be Canadian citizens or landed immigrants and must be registered students at a Canadian university, college or CEGEP. All entries must be accompanied by the name, address and telephone number of the submitter with proofs of student and citizenship status, a short curriculum vitae and statement of assignment. Contact: The Military and Hospitaller Order of St. Lazarus of Jerusalem Grand Prior in Canada, 39 McArthur Avenue, Vanier ON, K1L 7L7, Tel: (613) 746-5280, Fax: (614) 746-3982. Email: lazarusl@istar.ca. Web: home.istar.ca/~lazarus

Minerva Foundation For B.C. Women's Education Award

Deadline: May 1

Terms of reference: The purpose of the fund is to provide an annual awards a woman at Simon Fraser University. The award will be granted on the basis of financial need and academic proficiency, with preference given to a single mother pursuing graduate studies. Apply to Minerva Foundation by May 1 of the given year.

Contact: Danna Murray, Executive Director, Minerva Foundation, c/o Bull, Housser & Tupper, Suite 1730, 700 West Georgia Street, PO. Box 10036, Vancouver BC, V7Y 1A1, Tel: (604) 683-7635, Fax: (604) 683-7636. Web: www.theminervafoundation.com

National Association of Women and the Law (NAWL) Trust Essay Competition

Deadline: May 31

NAWL and the NAWL Trust invite students to submit essays on any topic related to feminist legal studies. The text should be submitted in 2500 words, double spaced. The competition is open to all students at recognized post-secondary institutions in Canada. Contact: National Association of Women and the Law, Suite 303-1066 Somerset Street, W., Ottawa ON, K1Y 4T3, Tel: (613) 241-7570. Email: info@nawla.ca. Web: www.nawla.ca

The Department of National Defence (NDN) Security and Defence Forum

Deadline: February 1

Terms of reference: The Department of National Defence offers a number of awards in studies relating to current and future Canadian national security and defence issues, including their political, intercultural, historical, social, military, industrial and economic dimensions. Applicants must be Canadian citizens or permanent residents of Canada.

a) MA Scholarship Program,

b) PhD Scholarship Program (including Dr. Ronald Baker Doctoral Scholarship),

c) Internship Program,

d) Post-Doctoral Fellowship Program (including P.B. Byers Fellowship).

Contact: Canadian Awards Program, Association of Universities and Colleges of Canada (AUCC), 350 Albert St., Suite 600, Ottawa ON, K1R 1B1, Tel: (613) 563-1236, Fax: (613) 563-9745. Email: awards@aucc.ca. Web: www.aucc.ca

National Essay Competition

Deadline: March 14

Terms of reference: The competition, open to full time undergraduate students enrolled in a non-professional faculty of a Canadian University or CEGEP, offers prizes to the top three submissions. A 1500 word essay, topic TBA, must be submitted by email. For information about entry procedures, regulations and essay topic, please visit website. Email: essaycompetition@rotman.utoronto.ca. Web: www.utoronto.ca/essaycompetition

Northern Scientific Training Program

Deadline: December 1

Terms of reference: Indian and Northern Affairs Canada offers the Northern Scientific Training Program for students undertaking studies in the North.

Contact: The University of Ottawa's Northern Studies Committee chairperson or NSTP at Tel: (819) 979-0670. Email: nstnp@innac.gc.ca

NSERC Aboriginal Student Research Awards

Deadline: November 1

Terms of reference: The Natural Sciences and Engineering Research Council of Canada (NSERC) is encouraging Aboriginal participation in four different awards programs. These programs are open to all Inuit, Metis, Status and Non-Status First Nation people.

THE UNDERGRADUATE STUDENT RESEARCH AWARDS (USRA) programs offers qualified undergraduate students the opportunity to work on a challenging research project in a university or industrial environment for up to four months (minimum salary of $5000 for 16 weeks). This is a great summer job opportunity for students registered in an honours bachelor's degree program in natural sciences or engineering.

THE POSTGRADUATE SCHOLARSHIPS (PGS) program provides financial support ($17,000 to $19,100 per year) for up to four years to students pursuing a master's or doctoral degree in the natural sciences or engineering.

THE POSTDOCTORAL FELLOWSHIPS (PDF) program provides financial support ($35,000 per year) for up to two years to the most promising young researchers in the natural sciences and engineering. THE UNIVERSITY FELLOWSHIPS (UFA) program is open to any Inuit, Metis, Status and Non-Status First Nation people and is being considered for university faculty positions. This program makes a substantial contribution, for up to five years, to the salary of each successful candidate nominated by a Canadian university.

Contact: Scholarships and Fellowships Division, Natural Sciences and Engineering Research, 350 Albert Street, Ottawa ON, K1A 1H5, Tel: (613) 600-2527; Fax: (613) 609-1856. Web: www.nserc.ca

Office of Critical Infrastructure Protection and Emergency Preparedness Research Fellowship Program

Deadline: March 28

Terms of reference: The purpose of the fellowship is to encourage disaster research and emergency planning in Canada by developing a greater number of qualified professionals in this field. Fields of study include all aspects of disaster and emergency studies, preferably in urban and regional planning, economics, civil engineering, earth sciences, risk analysis and management, systems science, social science, business administration and health administration. Candidates in the latter two areas must have completed their master's degree.

Multidisciplinary studies are encouraged. Candidates must be Canadian citizens or permanent residents of Canada. Preference will be given to applicants who hold a Master's degree and who would normally be pursuing doctoral studies.

Contact: Canada Awards Program, Association of Universities and Colleges of Canada (AUCC), 350 Albert St., Suite 600, Ottawa ON, K1R 1B1, Tel: (613) 563-1236, Fax: (613) 563-9745. Email: awards@aucc.ca. Web: www.aucc.ca

Okanagan Historical Society Student Essay Contest

Deadline: March 15

Terms of reference: The purpose of the essay contest is to encourage the research writing of Okanagan history by post secondary students. All post secondary students enrolled in British Columbia colleges and universities are eligible to submit essays on any historical topic about the Okanagan, Shuswap or Similkameen Valleys to the Okanagan Historical Society. The essay is to be 1500 to 2500 words. The prize is $1000 and possible publication in the annual “Okanagan History” book.

Contact: Jessie Ann Gamble, Box 516, Armstrong BC, V0E 1B0, Tel: (250) 546-9416. Email: jgamble@junction.net. Web: www.okanaganhistoricalsociety.org

Lewis Perinbam Award in International Development: Recognizing the Accomplishments of Ordinary Canadians (CBIE)

Deadline: September 24

Terms of reference: This award is given to a Canadian in recognition of excellence and imaginative leadership in a social or economic area pertaining to development in the Third World. The award recognizes grassroots achievements in improving life in developing countries and expanding awareness of...
those countries among the Canadian public. The award seeks to commend individuals who make volunteer contributions to international development rather than those who work in a paid professional capacity in this arena. However, someone who works in the field but undertakes voluntary commitments over and above his or her employment would also be considered for the award.

Contact: The Lewis Perinbam Award for International Development, c/o Canadian Bureau for International Education, Suite 1100, 220 Laurier W., Ottawa ON, K1P 5Z9, Tel: (613) 237-4820, Fax: (416) 961-1096. Email: jhumphries@cibe.ca
Web: www.cibe.ca/LPA_guide.html

Peterhouse-Cambridge Research Studentships
Deadline: April 1
Terms of reference: The governing body of Peterhouse offers annually a number of Research Studentships, open to men or women who will not normally have been undergraduate members of the college. Candidates should be under 25 years of age on December 1. Candidates must be graduates of a university in the United Kingdom or elsewhere. They must intend to be candidates for the degree of PhD in the University of Cambridge. Studentships may only be held at Peterhouse.
Contact: Senior Tutor, Peterhouse, Cambridge, CB2 1RD, England.

Madeline Bronson Rowan Endowment Fund
Deadline: unknown
Terms of reference: The purpose of this award is to assist in the cost associated with First Nations educational programs at the Museum of Anthropology and may be combined with other awards. This award is suited for First Nations students already engaged in Museum of Anthropology projects, though other applications will also be considered.
Contact: Awards Committee, c/o Anne Marie Fenger, UBC Museum of Anthropology, 6393 NW Marine Drive, Vancouver BC, V6T 1Z2, Tel: (604) 822-5567, Fax: (604) 822-2974.

Royal Bank Native Student Awards Program
Deadline: January 31
Terms of reference: The Royal Bank Native Student Awards Program was launched in 1992 to assist Aboriginal students achieve a post secondary education. Aboriginal individuals are eligible to receive an award of up to $4,000 for a maximum of four years toward the cost of a university or college education. Some award recipients are also given consideration for post graduate employment in the organization. Applicants must be Status Indian, Non-Status Indian, Inuit or Metis, you are eligible to apply provided that i) you are a permanent resident/citizen of Canada ii) you can provide proof of acceptance (with transcript of marks) or are already attending a university or college listed in the Directory of Canadian Universities, in a discipline relevant to the banking industry (e.g. business; economics; computer science) iii) you maintain a full course workload leading to a recognized degree, certificate or diploma iv) you are in need of financial assistance to pursue your education.
Contact: Coordinator, Royal Bank Native Student Awards, Human Resources Department, Head Office, Royal Bank Plaza, 200 Bay Street, 11th Floor North Tower, Toronto ON, M5J 2U5, Tel: (416) 955-5824, Fax: (416) 955-5840.

Maxine Sevack Memorial Grant
Deadline: unknown
Terms of reference: Annual scholarships of $500 are available to Little Sisters or Little Brothers enrolled in post-secondary education who were matched with their Big Sisters by Big Sisters of BC Lower Mainland. Eligibility: any Little Sister or Little Brother who has been a member of Big Sister of BC Lower Mainland for at least one year and has been matched with a Big Sister; is between 17 and 24 years of age; is enrolled in a training or educational program (exclusive of high school) which is at least three months in duration; has completed grade 10 and can demonstrate financial need.
Contact: Big Sisters of BC Lower Mainland, 34 East 12th Avenue, Vancouver BC, V5T 235, Tel: (604) 873-4525, Fax: (604) 873-2122
Web: www.bigsisters.bc.ca

The Shastri Indo-Canadian Institute Awards
Deadline: unknown
Terms of reference: The Shastri Indo-Canadian Institute (SICI) is a unique educational enterprise which promotes understanding between India and Canada by supporting India studies in Canada and Canadian studies in India. The Institute funds research, links institutions in the two countries, and organizes seminars and conferences. It is named after Lal Bahadur Shastri, the Prime Minister of India from 1964 to 1966 and a distinguished mediator and statesman. The Shastri Indo-Canadian Institute offers the following awards:
• Summer Program in India (deadline: October 30)
• Women and Development Awards in India (deadline: November)
• Undergraduate Awards (deadline: January 31)
• Language Training Fellowships (deadline: January 31)
• Language Teaching Grants (deadline: February 1)
• Seed Grants for India Studies (deadline: February 1)
• Faculty Fellowships (deadline: June 30)
• Librarian Fellowships (deadline: June 30)
• Post-Doctoral Fellowships (deadline: June 30)
• Arts Fellowships (deadline: June 30)
• Student Fellowships (deadline: June 30)
Contact: Program Officer, Development Studies Program, Shastri Indo-Canadian Institute, 1402 Education Tower, 2500 University Drive NW, Calgary AB, T2N 1M4, Tel: (403) 220-7467, Fax: (403) 289-0100.
Email: sici@ucalgary.ca
Web: www.sici.org

The Sisam Forestry Award
Deadline: March 31
Terms of reference: The Sisam Forestry Award, first granted annually at the University of Toronto in June 1988, is now open for competition to all full-time undergraduate and graduate students registered at a Canadian university during the award year. It is administered by the Council of the Faculty of Forestry, University of Toronto. The award is granted for an article, written solely by the applicant for the award, dealing with a forestry or forest-environment topic of public interest, e.g. forest ecology, silviculture, wildlife management, forest protection, harvesting operations, parks, conservation or wood science. The article, which may be illustrated, must have been published, in either English or French, in a magazine, trade publication or a daily or weekly newspaper (but not a student publication) at any time in the previous twelve-month prior to the final date for submission to the council.
Contact: The Sisam Forestry Award Admissions and Awards, University of Toronto, 315 Bloor Street West, Toronto ON, M5S 1A3.

Roman Soltkyewych Music Scholarship (URDC)
Deadline: November 30
Terms of reference: This award is available annually to any qualified applicant (individual or group) who is planning to pursue further studies in the field of Ukrainian choral or vocal music. Courses of study or workshops, either in progress or recently completed, will be considered.
Contact: Ukrainian Resource and Development Centre (URDC), Grant MacEwan Community College, Box 1796, Edmonton AB, T5J 2P2, Tel: (780) 497-4374, Fax: (780) 497-4377.

Transamerica Life Canada Conductive Education Award
Terms of reference: The award provides $30,000 over three years for the study of a BA (Hons) in Conductive Education at the University of Wolverhampton, England.
Contact: Ontario March of Dimes, 10 Oversea Blvd, Toronto ON, M4H 1A4, Tel: 1-800-263-3463, 416-425-3463, Fax: 416-425-1920. Email: ce@dimes.on.ca
Web: www.dimes.on.ca

Undergraduate Essay Competition – Education Foundation (CAF)
Deadline: January 14
Terms of reference: The Education Foundation of the Canadian Association of Former Parliamentarians, in partnership with the Centre for International Governance Innovation, invites undergraduate students from Canadian colleges and universities to enter a national essay competition. Essay, up to 1000 words, will be judged on originality, creativity and good substance. The winners will also be invited to Ottawa to receive their prizes and be familiarized with how the Government of Canada functions. For information about entry procedures, regulations and essay topic, please visit website.
Contact: The Education Foundation (CAF), P.O. Box 768, West Block, House of Commons Ottawa, ON K1A 0A6, Tel: 1-888-567-4764.
Email: exparl@parl.gc.ca
Web: www.parl.gc.ca/ex-parl

Volunteer Recognition Awards
Deadline: December 19
Terms of reference: Volunteer Vancouver's Volunteer Recognition Awards celebrate the spirit of volunteerism and showcase the voluntary efforts of countless individuals and groups. Recognizing specific individuals or organizations, these awards also focus public attention on the vast spectrum of voluntary service and community participation that sustains the vibrant and caring community in which we live. Awards are presented in five categories.
THE VOLUNTEER VANCOUVER AWARD FOR LEADERSHIP: This award is designed to recognize individuals that have demonstrated exceptional leadership in the non-profit sector.
THE VOLUNTEER VANCOUVER AWARD FOR INNOVATION: This award is designed to recognize organizations that have furthered their objectives while responding to the changing needs of the community with exceptional creativity and innovation.
THE LEADERS OF TOMORROW AWARDS: These awards honour exceptional individuals and use their examples to inspire others to similar service. These awards recognize youth 17 years of age and under, and separately, youth age 18-25 years.
THE CARING COMPANIES AWARDS: These awards recognize the support for voluntary activity among employees and for the financial support provided to community organizations.
THE COMMUNITY SERVICE AWARDS: These awards honour volunteers or volunteer groups for their invaluable service and focus public attention on the similar works of countless others.
Contact: Volunteer Recognition Awards, Volunteer Vancouver, #301-3102 Main Street, Vancouver BC, V6G 1A4, Tel: 604-875-9144, Fax: 604-875-0710.
Email: volvan@volunteervancouver.ca

Weyerhaeuser Canada Diversity Education Awards
Deadline: June 30
Terms of reference: The Weyerhaeuser Canada Diversity Education Awards Program offers up to four financial awards annually which may continue for two to four years, depending on the recipient's program of study.
You are eligible to apply if you are: a person of aboriginal ancestry (status and non-status Indian, Metis or Inuit); female; a person with a disability (as defined by the prevailing Canada Employment Equity Act); or a member of a visible minority (as defined by the Canada Employment Equity Act). You must also be a Canadian citizen or permanent resident who has resided in BC for the past 12 months. Preference will be given to individuals residing in BC communities where Weyerhaeuser has operations. You must also demonstrate acceptance to a recognized BC post-secondary educational institution as a full-time student in a two year diploma or a university degree program.

Contact: Diversity Education Awards Program, Weyerhaeuser Canada Ltd., PO Box 800, Kamloops BC, V2C 5M7, Tel: (250) 828-7387, Fax: (828-7580.

Elie Wiesel Prize in Ethics Essay Contest

Deadline: December 2

Terms of reference: The Elie Wiesel Foundation for Humanity sponsors an annual essay contest intended to challenge junior and senior students in colleges and universities to focus on ethical questions and issues facing them in a complex and ever-changing world. The essay, in 3000 to 4000 words, may take the form of a biographical, historical, literary, philosophical, sociological or theological. Essays must be the original, unpublished work of the student. Entry form and further information can be found on the Elie Wiesel Foundation for Humanity website.

Contact: The Elie Wiesel Prize in Ethics, The Elie Wiesel Foundation for Humanity, 529 Fifth Avenue, Suite 1802, New York, NY10017, USA, Tel: (212) 490-7777, Fax: (212) 490-8006.

Web: www.eliewieselfoundation.org

The Women’s Opportunity Award (Soroptimist International)

Deadline: December 15

Terms of reference: The Women’s Opportunity Awards Program was established by Soroptimist International in 1972 to assist women seeking to improve their employment status by gaining additional education and skills. Women’s Opportunity Awards are designed to provide assistance to women who provide the primary source of financial support for their families. Applicants must: 1) be female head of household, with primary financial responsibility for supporting their families; 2) be attending, or have been accepted to, a vocational/skills training program, or an undergraduate degree program; 3) have financial need; 4) be motivated to achieve their educational and career goals.

Contact: Patricia J. McKenzie, Soroptimist International of Vancouver, 3807 West 31st Ave., Vancouver BC, V6S 1Y2, Tel: (604) 229-2027; or Olga Nash, Soroptimist International of the Langleys, #207-20465 Douglas Crescent, Langley BC, V3A 4B6, Tel: (604) 532-1854; or Ms. Joyce Anderson, Soroptimist International of Burnaby-New Westminster, Tel: (604) 435-4280; or Joan Jeffries, Soroptimist of the Tri Cities, Tel: (604) 936-9572; Ms Eva Maclntyre, Soroptimist International of White Rock, 12719 15A Avenue, Surrey BC, V4A 1L9; or Soroptimist an analysis of fisheries in the coast of BC, c/o Ruth Ditto, 3636 Edgmont Blvd, North Vancouver BC, V7R 2P7, Tel: (604)980-3192.

Web: www.soroptimist.org

External Awards for Applied Sciences Students

Cable Telecommunications Research Fellowship Program

Deadline: March 28

Terms of reference: The Cable Telecommunications Research Institute has established graduate fellowships to encourage students at the master or PhD level to tackle topics in the engineering of communications systems for video, voice and data signals or for computer applications to cable TV requirements. Candidates must be Canadian citizens or permanent residents and enrolled or planning to enrol in a Canadian university. Candidates must intend to use the fellowship to assist them in completing a graduate degree which includes a thesis on a topic in the engineering of broadband communications systems or computer science. (In this context, a broadband system can be analogue or digital, or a combination, but must be capable of transporting upwards of 10 video channels.) Contact: Canadian Awards Program, Association of Universities and Colleges of Canada (AUCC), 350 Albert St., Suite 600, Ottawa ON, K1R 1B1, Tel: (613) 563-1236, Fax: (613) 563-9745.

Email: awards@aucc.ca

Web: www.aucc.ca

Caribou Research Award – Canadian Northern Studies Trust

Deadline: January 31

Terms of reference: The Beverly and Qamanijuaq Caribou Management Scholarship Fund provides awards of up to $2,000 to full-time students enrolled in a recognized Canadian community college or university pursuing studies that will contribute to the understanding of the Barren Ground Caribou and their habitat. Preference will be given to individuals who normally reside in one of the communities on the range of the Beverly and Qamanijuaq Barren Ground Caribou.

Contact: Association of Canadian Universities for Northern Studies (ACUNS), 17 York Street, Suite 405, Ottawa ON, K1N 9J6, Tel: (613) 562-0515, Fax: (613) 562-0533.

Email: acuns@cyberus.ca

Web: www.cyberus.ca/acuns

CIPS Computing Co-op Award

Deadline: unknown

Terms of reference: The Vancouver section of the Canadian Information Processing Society provides an award valued at $750 to a third or fourth year MSimon Fraser University  2005 • 2006

ESSA website.

Transportation, agriculture & construction, and power research related to the conservation of energy in transportation, agriculture & construction, and power generation, with emphasis on internal combustion engine. Printable applications are available on the SAE website.

Contact: Society of Automotive Engineers, SAE Education Relations, 400 Commonwealth Drive, Warrendale, PA 19095-0001, Tel: 1-724-772-4047.

Email: sae@saes.org

Web: www.sae.org

External Awards for Arts and Social Sciences Students

Alberta Council for Ukrainian Arts – Award for Ukrainian Art in Alberta (URDC)

Deadline: November 30

Terms of reference: This award is available annually to any qualified applicant (individual or group) who, through an exhibit, tour, festival, educational program or special project, fosters a greater awareness of Ukrainian arts in Alberta. Works in progress and/or recently completed works will be considered.

Applications must submit a portfolio and/or visual sample of the Ukrainian art being promoted, along with a written proposal outlining the intended exhibit, tour, festival, educational program or special project and a budget.

Contact: Alberta Council for the Ukrainian Arts Award, c/o Ukrainian Resource and Development Centre (URDC) Grant MacEwan Community College, Box 1796, Edmonton AB, T5J 2P2, Tel: (780) 497-4374, Fax: (780) 497-4377.

Canadian Association of Geographer’s Annual Award

Deadline: Spring

Terms of reference: The Canadian Association of Geographers will award in spring semester, a prize to the outstanding student in geography.

Contact: No application is necessary.

Churchill Communication Challenge – Sir Winston Spencer Churchill Memorial Fund

Deadline: April 15

Terms of reference: The annual Churchill Communication Challenge essay/term paper competition, established by the Rt. Hon. Sir Winston Spencer Churchill Society, offers two prizes ($600 and $200) to students majoring in history or political science and international relations. Each university/college may submit up to six essays/term papers selected by faculty members in charge in May/June each year and decision will be made by end of November. The topics of the essays/term papers are not restrictive. They look for topics of contemporary relevance and interest and prefer topics that make reference to the statesmanship or politics of Churchill, but is not essential.

Contact: The Rt. Hon. Sir Winston Spencer Churchill Society of British Columbia, c/o Stanley Winfield, 1-54 Richmond Street, New Westminster BC, V3L 5P2, Tel: (604) 520-0493.

Sergei Erelenko Music Award (URDC)

Deadline: November 30

Society of Automotive Engineers Awards

Deadline: April 1

Terms of reference: The Society of Automotive Engineers is offering several awards to students in engineering; the SAE Doctoral Scholars Forgivable Loan Program, the Yanmar/SAE Scholarship and the SAE Long Term Member Sponsored Scholarship. Eligible applicants will be entering their senior year of undergraduate engineering or enrolled in a postgraduate engineering or related science program. Applicants must be pursuing a course of study or research related to the conservation of energy in transportation, agriculture & construction, and power generation, with emphasis on internal combustion engine. Printable applications are available on the SAE website.

Contact: Society of Automotive Engineers, SAE Education Relations, 400 Commonwealth Drive, Warrendale, PA 19095-0001, Tel: 1-724-772-4047.

Email: sae@saes.org

Web: www.sae.org

At least $200) to students majoring in history or political science and international relations. Each university/college may submit up to six essays/term papers selected by faculty members in charge in May/June each year and decision will be made by end of November. The topics of the essays/term papers are not restrictive. They look for topics of contemporary relevance and interest and prefer topics that make reference to the statesmanship or politics of Churchill, but is not essential.

Contact: The Rt. Hon. Sir Winston Spencer Churchill Society of British Columbia, c/o Stanley Winfield, 1-54 Richmond Street, New Westminster BC, V3L 5P2, Tel: (604) 520-0493.

Sergei Erelenko Music Award (URDC)

Deadline: November 30

Terms of reference: The annual Churchill Communication Challenge essay/term paper competition, established by the Rt. Hon. Sir Winston Spencer Churchill Society, offers two prizes ($600 and $200) to students majoring in history or political science and international relations. Each university/college may submit up to six essays/term papers selected by faculty members in charge in May/June each year and decision will be made by end of November. The topics of the essays/term papers are not restrictive. They look for topics of contemporary relevance and interest and prefer topics that make reference to the statesmanship or politics of Churchill, but is not essential.

Contact: The Rt. Hon. Sir Winston Spencer Churchill Society of British Columbia, c/o Stanley Winfield, 1-54 Richmond Street, New Westminster BC, V3L 5P2, Tel: (604) 520-0493.
Undergraduate

Terms of reference: This scholarship is available annually to any qualified applicant (individual or group), who is planning to pursue further studies in the field of Ukrainian music. Courses of study or workshops, either in progress or recently completed, will be considered.

Contact: Ukrainian Resource and Development Centre (URDC), Grant MacEwan Community College, Box 1796, Edmonton AB, T5J 2P2, Tel: (780) 497-4374, Fax: (780) 497-4377.

HBK-Savings Bank Prize
Deadline: June 30
Terms of reference: HBK Savings Bank offers a prize in order to encourage the scientific study on workers’ financial participation and democracy in enterprises. This study deals with economic (ownership) and/or industrial (participation) democracy in enterprises. Candidates have to hold a university degree. A typewritten or printed copy of their work as well as a curriculum vitae mentioning their studies, degrees, professional activities and publications have to be sent to HBK Savings Bank. The study has to be written in one of the following languages: English, French, German or Dutch.

Contact: HBK-Bankute ePargane, Lange Lozanavste 250, B-2018 Antwerp, Belgium, Tel: 32-3-2475501, Fax: 32-3-2475399.

William and Mary Kostash Award for Film and Video Arts (URDC)
Deadline: November 30
Terms of reference: Awarded every second year for a project which promotes Ukrainian Canadian identity through the medium of film, video or multimedia. Works in progress and/or completed works will be considered. Drama, documentary, experimental, educational and other genres are acceptable. Open to Grant MacEwan Community College students and independent film or video producers. Successful applicants must forward two copies of their completed films or videos to the Ukrainian Resource and Development Centre within one year of receiving this award.

Contact: William and Mary Kostash Award for Film and Video Arts, c/o Ukrainian Resource and Development Centre (URDC), Grant MacEwan Community College, Box 1796, Edmonton AB, T5J 2P2, Tel: (780) 497-4374, Fax: (780) 497-4377.

Anna Pidruchney Award for New Writers (URDC)
Deadline: November 30
Terms of reference: Awarded annually to a novice writer for a literary work which includes Ukrainian Canadian identity and/or industrial (participation) democracy in enterprises. Only completed works will be considered. All genres of writing (including novels, short stories, poems, essays, and dramatic works) are acceptable. Open to Grant MacEwan Community College students and other authors. Preference will be given to young writers who have not yet had their works published on a regular basis, and who are considering writing as a profession. The award will be granted for English-language and Ukrainian-language submissions in alternating years.

Contact: Anna Pidruchney Award for New Writers, c/o Ukrainian Resource & Development Centre (URDC) Grant MacEwan Community College, Box 1796 Edmonton AB, T5J 2P2, Tel: (780) 497-4374, Fax: (780) 497-4377.

Prize of French Consulate in Vancouver
Deadline: summer
Terms of reference: Several book prizes and medals have been donated to Simon Fraser University to be awarded to students for outstanding achievement in French.

Contact: Applicants must be recommended to the French Consulate in Vancouver by the Department of French, Simon Fraser University.

Vancouver Foundation – Advanced Arts Study Awards
Deadline: May 31
Terms of reference: The Vancouver Foundation initiated the Advanced Arts Study Awards to help develop talent from BC. Awards will range from $3,000 to $5,000. Detailed Terms of the Awards (all conditions must apply):

• for a program of advanced study in music, dance or theatre,
• at a recognized institution or with an established professional within or outside of British Columbia,
• student has shown talent and demonstrated a high level of achievement,
• financial assistance is required to enable the student to take up the study opportunity,
• student is a BC resident and a Canadian citizen or landed immigrant,
• student has not received more than one previous award from this program.

Contact: Vancouver Foundation Advanced Arts Study Awards, Mary Olson, Administrator, Vancouver Academy of Music, 1270 Chestnut Street, Vancouver BC, V6J 4R9, Tel: (604) 724-2301, Fax: (604) 731-1920.

External Awards for Business Administration Students
British Columbia Export Award – International Business Studies
Deadline: October 5
Terms of reference: The International Business Study Award, sponsored by the Export Development Corporation (EDC), recognizes a student who has shown leadership and excelled in international studies while contributing to British Columbia’s export community. The recipient will have an excellent academic standing and have shown initiative in seeking opportunities and putting into action what they have learned in their studies. This may include, but not to be limited to research projects, work terms with export oriented companies or development of concepts and ideas that have benefited BC’s exporting community. EDC will present the winner with a $3,000 scholarship for continuing his/her studies. All undergraduate students who have a demonstrated interest in International Business and Trade are encouraged to apply for the BC Export Excellence Award.
Contact: Financial Assistance, Simon Fraser University.

HBK-Savings Bank Prize
Deadline: June 30
Terms of reference: HBK Savings Bank awards a prize in order to encourage the scientific study on workers’ financial participation and democracy in enterprises. This study deals with economic (ownership) and/or industrial (participation) democracy in enterprises. Candidates have to hold a university degree. A typewritten or printed copy of their work as well as a curriculum vitae mentioning their studies, degrees, professional activities and publications have to be sent to HBK Savings Bank. The study has to be written in one of the following languages: English, French, German or Dutch.

Contact: HBK-Bankute ePargane, Lange Lozanavste 250, B-2018 Antwerp, Belgium, Tel: 32-3-2475501, Fax: 32-3-2475399.

External Awards for Education Students
The Prime Minister’s Awards for Teaching Excellence
Deadline: unknown
Terms of reference: The Prime Minister’s Awards honor elementary and secondary school teachers across Canada who have best prepared students for the challenges of a changing society and knowledge-based economy. The awards, offered at the Certificate of Excellence and Certificate of Achievement levels, carry a prize of $5000 and $1000, respectively, given to recipients’ schools to be spent as the educator’s discretion. Nominees must be practicing classroom teachers with a minimum of three years experience. Nominees can be anyone with direct knowledge of the educator’s contribution, including principals, parents, students and colleagues.

Contact: Prime Minister’s Awards for Teaching Excellence, Tel: 1-800-268-6608.
Email: pmawards@ic.gc.ca
Web: www.schoolnet.ca

External Awards for Science Students
Cable Telecommunications Research Fellowship Program
Deadline: March 28
Terms of reference: The Cable Telecommunications Research Institute has established graduate fellowships to encourage students at the master or Ph.D. level to tackle topics in the engineering of communications systems for video, voice and data signals or for computer applications to cable TV requirements. Candidates must be Canadian citizens or permanent residents and enrolled or planning to enrol in a Canadian university. Candidates must intend to use the fellowship to assist them in completing a graduate degree which includes a thesis on a topic in the engineering of broadband communications systems or computer science. (In this context, a broadband system can be analogue or digital, or a combination, but must be capable of transporting upwards of 10 video channels.)

Contact: Canadian Awards Program, Association of Universities and Colleges of Canada (AUCC), 350 Albert St., Suite 600, Ottawa ON, K1R 1B1, Tel: (613) 563-1236, Fax: (613) 563-9745.
Email: awards@aucc.ca
Web: www.aucc.ca

Canadian Association of Geographer’s Annual Award
Deadline: Spring
Terms of reference: The Canadian Association of Geographers will award in spring semester, a prize to the outstanding student in geography.
Contact: No application is necessary.

Caribou Research Award – Canadian Northern Studies Trust
Deadline: January 31
Terms of reference: The Beverly and Qamanjuaq Caribou Management Scholarship Fund provides awards of up to $2,000 to full-time students enrolled in a recognized Canadian community college or university pursuing studies that will contribute to the understanding of the Barren Ground Caribou and their habitat. Preference will be given to individuals who normally reside in one of the communities on the range of the Beverly and Qamanjuaq Barren Ground Caribou.

Contact: Association of Canadian Universities for Northern Studies (ACUNS), 17 York Street, Suite 405, Ottawa ON, K1N 6U6, Tel: (613) 562-0515, Fax: (613) 562-0533.
Email: acuns@cyberus.ca
Web: www.cyberus.ca/acuns

CIPS Computing Co-op Award
Deadline: unknown
Terms of reference: The Vancouver section of the Canadian Information Processing Society provides an award valued at $750 to a third or fourth year SFSSC student who has a major or minor in mathematics or computing science. A scholarship of $250 is available to a runner-up student. Applicants must have at least a 3.00 CGPA and have completed at least two co-op terms.
Contact: The applicable department for application procedures.

Esso Resources Canada Limited – Native Education Award
Deadline: June 15
Terms of reference: Two $4,500 awards are available to students enrolled in full-time petroleum industry-related studies and have financial need. Your grades will be considered. You must have been living in BC, Alberta, Saskatchewan, the Yukon or the Northwest Territories for 12 months before applying. Contact: Co-ordinator, Native Education Awards Program, Human Resources Department, Esso Resources Canada Limited, 237 Fourth Avenue SW, Calgary AB, T2P 0H6.

NSERC Undergraduate Student Research Awards
Deadline: unknown
Terms of reference: NSERC Undergraduate Student Research Awards are valued at $4,000 (plus a 25% supplement from the host university or company) and are normally held for 16 weeks. Students must be registered full-time in a bachelor’s degree program in the natural sciences or engineering and have successfully completed their first year of undergraduate studies with a minimum average of “B”.
Contact: Scholarships and Fellowships Division, Natural Sciences and Engineering Research, Council of Canada, 350 Albert Street, Ottawa ON, K1A 1H5, Tel: (613) 995-5521; Fax: (613) 996-2589.
Email: school@nserc.ca
Web: www.nserc.ca/programs/school1_e.htm

Science Council of BC – Central Interior Second Year Science Award
Deadline: August 30
Terms of reference: $1,000 to students who graduated from a high school in the central interior region who are proceeding to a second year of studies at a Canadian university, college or institute in the field of science and/or technology. Based on high scholastic achievement (80% minimum) plus personal qualities and activities. Must provide two letters of reference, one from a science teacher, and include high school transcript and first year transcript attached to application.
Contact: K. Steadman, Science Council of BC Central Interior, Box 3010, Kamloops BC, V2C 5V2 (UCC Campus), Tel: (250) 371-5751, Fax: (250) 828-5492.
Email: ksteadman@cariboo.bc.ca

External Loans

British Columbia Youth Foundation Loan
Deadline: unknown
Terms of reference: The Foundation is prepared to make available to bona fide British Columbia residents under the age of 30, interest-free loans to assist in the pursuance of further education. This assistance is afforded to students who are not eligible for Canada Student Loans. The Foundation will require a co-signer if this private loan is granted; normally, the student’s parents would be asked to do this.
Contact: Further details may be obtained from Financial Assistance.

Canadian Forces Personnel Assistance Fund (CFPAF)
Deadline: June 30
Terms of reference: The Canadian Forces Personnel Assistance Fund offers an Education Assistance Loan Program to assist serving and former members and their dependants with costs of post secondary education. To be eligible for a low interest loan of $1,200, $1,500, then in $500 increments up to a maximum of $4000 per student, per year, the serving or former member must have served in the Canadian Army, after 1st October 1946, or in the Canadian Forces, after 31 January 1968, and have a minimum of one year Regular Force military service. The loans are repayable over a twelve to twenty four month period. Applications will be accepted throughout the year until the funds allotted for the EALP are exhausted.
Contact: Canadian Forces Base Financial Counsellors, district offices of Veterans Affairs Canada, and the Provincial Command Officers of the Royal Canadian Legion. CFPAF, 234 Laurier Avenue West, Ottawa ON, K1P 6K6, Tel: (613) 760-3447, 1-888-753-9828, Fax: (613) 233-5907.
Email: cfpa@cfapsa.com
Web: www.cssip.ca/English/Cfpaef

PEO Sisterhood Educational Loan Fund
Deadline: Unknown
Terms of reference: Loans are available to women students in second to fourth year of a university course, and may be requested at any time. The maximum amount of a loan to any student is $2,000. Fourth year or graduate students may be granted loans and draw the maximum loan of $2,000 for two or more years of study, but may draw only $1,000 of the loan in one academic year. Students must complete satisfactorily one semester’s work before making application. Interest at a 6% rate is to be paid annually, and the student is expected to begin payment of the principal as soon as she is out of university and employed.
Contact: International Student Advisor, PEO International Peace Scholarship Fund, PEO Executive Office, 3700 Grand Avenue, Des Moines, Iowa, USA, 50312-3820, Tel: (515) 255-3153, Fax: (515) 255-3820.

Royal Canadian Naval Benevolent Fund
Deadline: October
Terms of reference: This fund recognizes the need of financial assistance for educational purposes of former members of the Naval Forces of Canada and Canadian Merchant Navy Veterans. This program is not only for university but for vocational and other special training as well. Financial assistance for dependants is limited to cover tuition, student fees, books and supplies.
Contact: Royal Canadian Naval Benevolent Fund, PO Box S05 Station “B”, Ottawa ON, K1P 5P6, Tel: (813) 996-5087, Fax: (613) 236-8830.

Government Administered Programs

Canadian Armed Forces Subsidization Plans

Admission Requirements
An applicant must be a Canadian citizen; be physically fit for enrolment in the Canadian Forces; and be at least 16 years of age on the first day of January of the year the student commences first year studies at university.

How to Apply
Individuals interested in obtaining more information on, or wishing to make application for, any of these plans are requested to contact: Commanding Officer, Canadian Forces Recruiting Centre, 757 West Hastings Street, Vancouver, BC, V6C 1A1.

Government Loans
A loan is a sum of money borrowed by a student who proves financial need on a promise to repay at some specified time.

Canada Student Loan/BC Student Assistance

The purpose of the Canada Student Loan/BC Student Assistance Program is to assist students whose resources are insufficient to provide the cost of full-time studies at the post-secondary level of education. Therefore, funds under the program are granted only where the financial resources available to students from parents, summer or other employment, part time work, or other sources, are insufficient to meet their estimated educational costs. Normally, the funds provided under this program will be discharged through a combination of the Canada Student Loan and BC Student Assistance.

In August 2004, the BC government established a new loan reduction program to help high-need students manage the costs of post-secondary education. The BC Loan Reduction Program will be delivered in cooperation with the Canada Millennium Scholarship Foundation’s (CMSF) Bursary Program. The CMSF Foundation and the Province of British Columbia have agreed that CMSM bursaries will be distributed as Loan Reduction Grants to eligible students effective the 2004/2005 program year. The Loan Reduction Grants will be paid at the end of the school year. For eligibility criteria and details on the program please see the Ministry of Advanced Education website at bcsa.pbc.ca.

Some students with dependent children may qualify for Canada Student Grant funding. A detailed booklet describing the program in full is available at Financial Assistance or www.bcsa.pbc.ca.

Eligibility
Applicants must be Canadian citizens or permanent residents (landed immigrants) to be eligible.

Assistance will be provided to eligible registered full time students taking a minimum of 60% or nine regular credit hours (40% or six for students with permanent disabilities) of a full program of study leading to a certificate, diploma or undergraduate degree, or registered full time (part time for students with permanent disabilities) graduate students. The amount of assistance awarded will be based on assessed need as determined by the provincial authority.

Loan Amounts
Enhancements to the Canada Student Loan Program (CSLP) for 2005/2006 will result in an increase in federal assistance levels. Weekly loan limits on the federal portion of a student’s loan will increase from $165/week to $210/week. Single full time students will be eligible for a maximum of $5,400 in BCSAP each semester. The maximum for students with dependent children is $8,160. You can apply for BCSAP for either one semester or two semesters at once (e.g. fall only, spring only, fall and spring).

How to Apply
A student in need of a Canada Student Loan/BC Student Assistance must first apply on-line at www.bcsa.pbc.ca. Alternately, paper application packages are available from any post-secondary institution or from Financial Assistance. The application must be completed carefully and accurately by the student, and where applicable, by the spouse or parent(s). If the student’s application is approved, the student will receive in the mail a notification of award from the Student Services Branch in Victoria.

After receiving the notification of award from the Student Services Branch in Victoria, the Canada Student Loan document will be mailed to the student from the Student Services Branch and the student will then take the loan document to a designated Canada Post outlet for submission to the National Student Loan Service Centre for negotiation.

Simon Fraser University 2005 • 2006
If the student is also eligible for BC Student Assistance, the student will receive with their notice of assessment a B.C. Loan Agreement from the Student Services Branch in Victoria. The student will then take the loan agreement to a designated postal outlet for submission to the BC Student Loan Service Bureau for processing. Once the Service Bureau processes the loan agreement, the Student Services Branch in Victoria will request confirmation of student’s enrollment by the school and the funds for which the student is eligible will be electronically disbursed to the student’s personal bank account according to financial information provided on the B.C. Loan Agreement. Students are advised to keep in constant touch with the bank, or service providers from which they secure their loans.

Interest on the loan is paid by the federal or provincial government as long as the student is registered as a full time student and the appropriate agencies are aware of their full time status. Students should contact their lending institution (bank, credit union, service provider) for information regarding the current interest rate and repayment schedule for Student Loans. Students who have previously received Canada Student Loans or BC Student Loans, but who do not qualify one for their immediate period of study, should submit a Schedule 2 and/or Certificate 2 to their lending institution in order to retain payment free status. Students must be undertaking a minimum of nine regular credit hours (six for students with permanent disabilities) in the current semester, be a registered full time (part time for students with permanent disabilities) graduate student, or enrolled in a co-op education work term to be considered eligible for payment free status. These forms may be obtained from Financial Assistance or the lending institution.

For appeals, reassessments or other concerns, please contact Financial Assistance.

Exceptions

Although the majority of programs at Simon Fraser University are eligible for government student loans, some programs do not meet BC Student Assistance Program eligibility criteria (e.g. Executive MBA, MEd Off-campus). Please contact Financial Assistance if you do not see your program listed on the BCSAP On-Line Program Information.

Canada Access Grant – Students from Low income Families

The Canada Access Grant – Students from Low income Families is a non-repayable grant for first-time, first-year students entering Post-Secondary Education. It is designed to provide an incentive to students from low-income families to participate in Post-Secondary Education by reducing financial barriers and by offsetting debt (the grant replaces federal student loan with grant).

Government Part-time Grants/Loans

If you are a part time student with demonstrated financial need, you may qualify for a federal study grant of up to $1,200 (Canada Study Grant for High Need Part-Time Students). Grants are targeted to students with dependent and possibly other students with special circumstances who are not able to take full time studies.

Federal student loans up to $4,000 are also available to part time students with financial need. These loans supplement other financial resources such as earnings, scholarships and bursaries. Part time students who are Canadian citizens or landed immigrants and who are not in default of previous federal student loans or grants may apply for both the grant and loan programs.

Applications and information are available from www.bcsap.bc.ca. The deadline for applications is nine weeks before the end of each semester.

Grants for Students with Permanent Disabilities

Federal grant programs are available to students with permanent disabilities. The Canada Study Grant for the Accommodation of Students with Permanent Disabilities is designed to offset exceptional education-related costs incurred for services and equipment, such as note-takers, interpreters, and technical aids. Up to $8,000 per program year is available. Check with the Centre for Students with Disabilities in MBC 1250, or call 604.291.3112.

The Canada Access Grant – Students with a Permanent Disability (CAG-PD) is intended to provide up to $2,000 in grant to students with a documented permanent disability. This grant replaces the Canada Study Grant for High Need Students with Permanent Disabilities (CSG-HNPD). The CAG-PD is intended to assist in covering the costs of accommodation, tuition, books, and other education-related expenses, for up to $2,000 per year.

For eligible students, the $2,000 will be applied before any other funding to reduce the assessed need for full-time students. For part-time students, the grant will be awarded before part-time loans. Contact Financial Assistance in MBC 3200 or call 604.291.4356 for further information.

Grants for Female Doctoral Students

A federal grant program is available to female doctoral students in specific doctoral programs. Please call 604.291.4356 for further information, or see www.bcsap.bc.ca

The Loan Remission Program

If you have a BC Student Loan negotiated prior to August 1, 2000 (Guaranteed or Risk Sharing), the Loan Remission Program may assist in the reduction of your BC Student Loan debt. If you have a BC Student Loan negotiated after August 1, 2000 (Direct Lend), this loan may be included when calculating your total debt, but will not be eligible for loan remission.

You will not be eligible for consideration under the Loan Remission Program if you have Direct Lend BC Student Loans only. For further information and eligibility on the Loan Remission Program, contact: Loan Remission and Management Unit, Student Services Branch, Ministry of Advanced Education or visit the Student Services Branch website at www.bcsap.bc.ca (debt management tools).

Ministry of Advanced Education

Mailing address: PO Box 9173 Stn Prov Govt, Victoria, BC, V8W 9H7.

In Victoria call 250.387.6100; in the Lower Mainland call 604.660.2610; in North America call toll-free 1.800.561.1818, TTY 250.952.6832, Fax 250.356.9455 or toll-free fax in North America 1.888.262.2112, www.bcsap.bc.ca

For more information regarding loans, check with the bank, or service providers from which you secure your loans. Check with the bank, or service providers from which you secure your loans.

Study in BC for Students from Other Provinces

Out-of-province Student Loans

Students must apply to their province of residence for Canada and Provincial/Territorial funding. Application forms are available from Financial Assistance, MBC 3200. On-line applications are available for most provinces. Check the Financial Assistance website at http://students.sfu.ca/af for links to each of the provincial/territorial ministries.

International Students

United States Students

Citizens (or eligible non-citizens) of the United States attending the university may apply for funding through the US Department of Education Student Financial Assistance Program. A Free Application for Federal Student Aid (FAFSA) must be completed by the student and submitted to the Federal Student Aid Programs. SFU’s school code is 008444. A Student Aid Report (SAR) is then issued to the student. SFU does not receive the SAR electronically because we are a foreign school. If you do not receive the original eight page SAR, you will need to contact FAFSA to request one.

To apply for Stafford Loans, the student must submit the signed SAR to Financial Assistance, with a master promissory note and school certification form, obtained from a state guarantee agency. New, first time borrowers must also complete an entrance interview at www.mapping-your-future.org.

Financial Assistance calculates the student’s costs, completes the school certification form, and then forwards the application to the appropriate agency for processing.

For more information regarding financial aid from the US Department of Education, call: 1.800.4.FED.AID (1.800.433.3243), or http://studentaid.ed.gov

Students with permanent resident status may be eligible to apply for Canada Student Loans. See section International Students.

Students from Other Countries

Students who are not Canadian citizens or Permanent Residents, and who will require financial assistance to attend Simon Fraser University must arrange such assistance in their country of origin before arrival in Canada.

Simon Fraser University permits non-Canadian students to compete for scholarships once they have enrolled at the University on the basis of course work undertaken at Simon Fraser University. Bursaries are awarded on the basis of financial need, but only as supplemental funding, not as core funding needed to meet immigration requirements. It must be stressed that non-Canadian students should not predicate their tuition and living expense estimates upon these sources. Non-Canadian students are normally not permitted to work in Canada. Such students are expected and required by federal law to have sufficient funds guaranteed for their education prior to arrival in Canada.

For More Information

For further information on programs offered by Financial Assistance (Student Services) come to MBC 3200 or call 604.291.4356. You may also e-mail us at fiassist@sfu.ca.
Index

Note: this index is compiled in simple alphabetical order according to the first word of the scholarship, award, or bursary. For example, the AI Eisenring Gerontology Award appears under “A,” not “E.”

$10,000 Honourable William M. Hamilton Scholarships 56
$16,000 Lloyd Carr-Harris Foundation Entrance Scholarship in Business Administration 56
$2,000 SPU Surrey Entrance Awards 56
$24,000 Gordon M. Shrum Scholarships 56
$29,000 Simon Fraser Alumni Leadership Scholarships 56
$3,500 Jack Diamond National Entrance Scholarships 56
$3,500 Ken Caple Scholarships 56
$3,500 Kenneth Strand National Scholarships 56
$3,500 Phi Theta Kappa International Summit Scholarships 56
$3,500 Summit Scholarships 56
$3,500 Tadeusz Specht Memorial Scholarships in Applied Sciences 56
$3,500 Tadeusz Specht Memorial Scholarships in Science 56
$34,000 Simon Fraser Scholarships 56
$4,500 International Summit 56
$7,000 Dean’s Scholarships 56
$7,000 Dean’s Scholarships 56
3M Canada Company Bursary in Business Administration 70
A. John Ellis Bursary in Business Administration 71
ABA Legal Opportunity Scholarship Fund 87
Aboriginal Student Bursary Program 63
Aboriginal Student Leader Award 73
Aboriginal Veterans’ Memorial Scholarship Trust Fund 87
Accenture Scholarship in Business Administration 60
Adaline May Clark Bursary 69
AGF Financial Life Skills Scholarship Program 85
Aird Dundas Flavelle Memorial Bursary 68
Aird Dundas Flavelle Memorial Bursary 71
AI Eisenring Gerontology Award 77
Alberta Council for Ukrainian Arts – Award for Ukrainian Art in Alberta (URDC) 114
Alex W. Ferguson Bursary 65
Alexander Fraser Award in Piping and Drumming 73
Alfred William Davidson Bursary 64
All Nations Trust Company/All Nations Development Corporation Endowment Fund Awards 87
Allison McNeill Award in Women's Basketball 83
Alumni Association Outstanding Student Leadership Award 73
Alumni Scholarship and Bursary Endowment Fund 57
Alumni Scholarship and Bursary Endowment Fund 63
Ancle and Arthur Fousk Bursary in Publishing Studies 68
Ann and William Messenger Undergraduate Scholarships in English 57
Anna Pedruchney Award for New Writers (URDC) 115
Annis Stukus Award in Football 84
Aon Reed Stenhouse Inc. Athletic Award 81
Anna Pidruchney Award for New Writers (URDC) 115
Ann and William Messenger Undergraduate Scholarships 68
Association of Professional Biologists Scholarship 101
Association of Professional Biologists Scholarship 101
Asscociation of Professional Biologists Scholarship 101
Association of Professional Biologists Scholarship 101
Association of Professional Geologists and Geoscientists of BC Scholarships 56
Association of Professional Geologists and Geoscientists of BC Scholarships 58
Association of Universities and Colleges of Canada Awards 85
Athlete Assistance Awards 81
Athletic and Recreation Awards 81
Athletic Entrance Awards 81
Australian Scholarship Award Program 88
B and B Sivertz Bursary 67
B.C. Federation of Labour Award 76
B.C. Shopping Centre Association Bursary 88
B.C. Sugar Achievement Award 73
Bank of Montreal Undergraduate Scholarship in Business Administration 60
Bank of Nova Scotia Football Award 81
Barbara J. Towriss Award in Women’s Basketball 84
Barry and E. Anne MacDonald Asia-Canada Awards 79
Barry Sullivan, Q.C. Memorial Bursary 106
Basil Peters/High Tech Exchange Group Scholarship 58
Baxter and Alma Ricard Fondation Scholarship 95
Baxter Corporation Jean Goodwill Scholarship 101
BC Arts Council Scholarship Awards 99
BC Athlete Assistance Program 81
BC Bearing Engineers Limited Award 73
BC Bond Dealers Association Bursary 70
BC College Scholarship application deadlines: 56
BC Exchange Teachers’ Association Bursary 71
BC Government and Service Employees’ Union Scholarships 102
BC Historical Federation Scholarship 99
BC Hydro Aboriginal Scholarships 88
BC Hydro Scholarships 88
BC Indian Arts and Welfare Society Memorial Bursary 102
BC Lions Football Award 81
BC Ministry of Aboriginal Affairs – First Citizen's Fund 103
BC Nursing Education Bursary Program 103
BC Paraplegic Foundation Scholarships/Bursaries 103
BC Paraplegic Foundation Scholarships/Bursaries 88
BC Press Council Prize 107
BC Wrestling Association Alumni Award 81
BCTV Broadcasting System Ltd Athletic Award 81
Beedie Construction Company Ltd (Keith & Betty Beedie) Award 80
Bel-Par Industries Limited Bursary 64
Best Facilities Services Ltd Athletic Award 81
Betty Lambert Memorial Prize 77
Bice Caple Awards 81
Bill and Elise More First Nations Bursary 105
Bill De Vries Athletic Award 63
Bing Sum Yip Bursary In Business Administration 71
Biological Sciences Merit Award 80
Birks Family Foundation Bursary 64
Blayne and Sharon Johnson Bursary 65
Bob Ackles Sports Administration Award 80
Bob Spray Rugby Awards 84
BOMA Undergraduate Bursary in Urban Studies 68
BOMA Undergraduate Scholarship in Urban Studies 59
Book Promoters’ Association of Canada Bursary 107
Brian Williamson Memorial Award in Archaeology 78
Bridget Walsh Scholarship for Single Parent Irish Women 96
Brit Townsend Women’s Track and Field Award 84
British Columbia Asia Pacific Students' Awards 88
British Columbia Export Award – International Business Studies 115
British Columbia Health Cares Bursaries 102
British Columbia Heritage Trust University Scholarships 88
British Columbia Psychological Association Award 77
British Columbia Youth Foundation Loan 116
Bruce and Lis Welch Bursary in Business 71
Bruce Howe Memorial Scholarship in International Business 60
Bruce McKelvie Endowment Bursary 70
Bud Smith Scholarship (ILWU Local 517) 91
Bureau du Quebec Book Prizes in Quebec Studies 77
Burnaby Historical Society Scholarship 99
Burnaby Savings Credit Union Scholarship 88
Burrard Charitable Foundation Bursary 64
Business Administration Students Endowment Fund Prizes 79
Buster’s Towing, Angus Anon MacLennan Award in Golf 81
C.D. Howe Memorial Foundation Engineering Awards Program 98
C.D. Neilson Memorial Prize 74
Claudette MacKay-Lassonde Scholarship 97
Canadian Engineering Memorial Foundation Scholarships 97
Canadian Federation of University Women – Coquitlam Bursary 64
Canadian Federation of University Women – North Vancouver Bursary 68
Canadian Federation of University Women – North Vancouver Bursary 72
Canadian Federation of University Women of South Delta Bursary 67
Canadian Federation of University Women Parksville/Qualicum – Grace D’Arcy Memorial Award 108
Canadian Federation of University Women Parksville/Qualicum – Mature Women Bursaries 103
Canadian Federation of University Women Parksville/Qualicum – The James Craig Reid Memorial Scholarship 89
Canadian Federation of University Women Parksville/Qualicum Memorial Award 108
Canadian Forces Personnel Assistance Fund (CFPAF) 116
Canadian Hard of Hearing Association Scholarship 89
Canadian Institutes of Health Research (CIHR) Science Writer Scholarships 108
Canadian Japanese – Mennonite Scholarship 89
Canadian Merit Scholarship Foundation 85
Canadian Mine Action Research Program 108
Canadian National Railways Athletic Award 81
Canadian Northern Studies Polar Commission Scholarship – Canadian Northern Trust 89
Canadian Printing Industries Scholarship Trust Fund 89
Canadian Sanitation Supply Association Scholarship Program 89

Simon Fraser University 2005 • 2006
Canadian Society for Chemical Engineers – Edmonton Chemical Engineering Scholarship 97
Canadian Society for Chemical Engineers – Samia Chemical Engineering Community Scholarship 98
Canadian Society for Chemical Engineers – SNC-LAVALIN Plant Design Competition 97
Canadian Society for Chemistry’s Alfred Bader Scholarships 101
Canadian Space Agency Space Exploration Scholarship 99
Canadian Space Agency Spaceflight and Life Sciences Training Program Scholarship 102
Canadian Space Agency Spaceflight and Life Sciences Training Program Scholarship 98
Canadian Water Resources Association 89
Canadian Wireless Telecommunications Association (CWTA) Graduate Scholarship 89
Canadian Women in Timber Fraser Valley Branch Bursary 107
Carstairs Capital Association Community
Undergraduate Bursary in Education 71
Canadian-Scandinavian Foundation Special Purpose Grant 108
CARB Sales & Marketing Award – Canadian Association of Broadcasters 100
CARB Sales & Marketing Award – Canadian Association of Broadcasters 98
Caribou Research Award – Canadian Northern Studies Trust 114
Caribou Research Bursary 103
Carol and Gary Chapman Memorial Scholarship in Education 61
Carol Anne Letheren Leadership and Scholarship 86
Carrera Alumni Award in Wrestling 81
Catherine Tse Bursary For Simon Fraser University Field Schools 67
CCPE – Manulife Financial National Scholarships 98
CCPE – Moliner Monnex Scholarship 98
Centennial Flame Research Award for Persons with Disabilities 108
Central Okanagan Teachers Association – A.S. Matheson Education Scholarship 85
Certified Management Accountants Society of British Columbia Scholarships 100
CGA Academic Excellence Scholarship 100
CGA Continuing Education Tuition Scholarship 100
Chancellor’s Undergraduate Bursary 64
Channel Management Entrance Scholarship 58
Charles Chan Kent Gold Wedding Bursaries 65
Charles Dragan & Rose Anne Doonan Bursary in Labour History 69
Charles S. Walker Bursary 71
Chemistry Bursary Fund – Dr. E.J. Wells 80
Chemistry/Biochemistry Award 80
Chemov Canada Ltd Scholarship 60
Chien’s Cultural Foundation Bursary 69
Chien’s Cultural Foundation Bursary 70
Chien’s Cultural Foundation Scholarship 59
Chien’s Cultural Foundation Scholarship 60
Chinese Federation of Commerce of Canada Scholarship 60
Chu On Fung and Wai Yuk Fok Foundation Bursary 71
Churchill Communion Challenge – Sir Winston Spencer Churchill Memorial Fund 114
CIBC Youthvision Graduate Research Award Program 114
CIPS Computing Co-op Award 114
CIPS Computing Co-op Award 115
Clansmen Athletic Alumni Society Award 82
Claude E. Lewis Award 79
Cliff Lloyd Memorial Award 77
Cloverdale Paint Incorporated Scholarship 60
CNST Scholarships in Northern Studies – Canadian Northern Studies Trust 96
Coast Capital Savings Education Awards 89
Coca-Cola Student Athlete Awards 82
Cohen Fund in Business – J. Segal Prize 79
Florece and Lynn Sully Basketball Award in Men’s Basketball 84
Florece Godwin IODE Bursary in Criminology 69
Forest Renewal BC Bursary Program 104
Frank Klein Memorial Fellowships Program 111
Fred & Maureen Wright Bursary 86
Fred and Elaine Moonen Scholarship in Communication 58
Frederick Shen Bursaries in Business Administration and Economics 71
G.A.B.C. Chuck Bayley Memorial Award 76
G.F. Kym Anthony Wrestling Award 81
Gandhi Essay Award 73
Geomatics Canada Scholarship Program – Canadian Institute of Geomatics 90
George and Muriel Rogers Bursary in the Faculty of Arts 70
Gerald and Sheahan McGavin Award 78
Gerald Donato Vertone Scholarship 96
Gil Moser Memorial Scholarship 61
Gillis Purcell Memorial Journalism Scholarship for Native Canadians 73
Global Student Entrepreneur Awards 110
Global Television Network Aboriginal Peoples’ Internship Award 110
Global Television Network Scholarship – Internship Award for Canadian with a Physical Disability 91
Global Television Network Scholarship Program for a Canadian Visible Minority Student 90
Gloria Garrett Carlton Bursary in Dance 69
Goel Memorial Scholarship 82
Golden Key Scholarships and Awards 91
Gordon M. Strum Gold Medal 75
Gordon M. Strum International Entrance Scholarship 56
Gordon R. Diamond Bursary 65
Government Finance Officers Association – Public Employee Retirement Research and Administration Scholarship 91
Government Finance Officers Association – George A. Nielsen Public Investor Scholarship 91
Government Finance Officers Association – Minorities in Government Finance Scholarship 100
Government Finance Officers Association – Minorities in Government Finance Scholarship 99
Government Finance Officers Association – Public Employee Retirement Research and Administration Scholarship 91
Government Finance Officers Association – Minorities in Government Finance Scholarship 99
Government Finance Officers Association – Public Employee Retirement Research and Administration Scholarship 91
Government Finance Officers Association – Minorities in Government Finance Scholarship 99
Government Finance Officers Association – Government Finance Officers Association – Public Employee Retirement Research and Administration Scholarship 91
Governor General’s Silver Medal 74
Grace Woodsworth MacInnis Bursary 69
Grant Wilson Memorial Scholarship 61
Greater Vancouver Mining Women’s Association Bursary in Earth Sciences 72
Great-West Life Scholarship in Business Administration 60
Guide Outfitters Association of BC Scholarship Program 102
Gulf and Fraser Credit Union – Robert F. Long Educational Award 110
H.Y. Louie Entrance Award 57
Hadasah-WIZO Scholarship in Women’s Studies 59
Hamber Foundation Bursary 65
Hamilton Community Foundation 104
Harold Arvid Christenson Memorial Scholarship Fund 89
Harold Hancheroff Memorial Scholarship in Sports Education 58
Harold Lauer Ethel Britth (Lions Gate Lodge 1716) 65
Harry and Dora Smee Bursary 67
Harry Bridges Entrance Scholarship (ILWU) 86
Harry Bridges Undergraduate Scholarship (ILWU) 91
Harry Jerome Awards 111
Harvey and Dorothy Bun Bursary 64
HBK-Savings Bank Prize 115
HBK-Savings Bank Prize 115
Heart and Stroke Foundation of BC and Yukon 110
Helen Egri Bursary for Students with Dependent 65
Helen Pitt Bursary in Visual Arts 70
Helen Pitt Graduating Award in Visual Arts 78
Henderson Development Ltd. Bursary 71
Heroes of Our Time 110
Holstein Canada Education Awards 110
Hong Kong University BC Alumni Award 74
Honor Roll 73
Honourable William M. Hamilton Memorial Scholarship 60
Home Family Alumni Bursary 65
Howie Larke Scholarship in Sport Information 63
Hugh Christle Memorial Bursary – YMCA 103
Hugh Clark Memorial Bursary in Engineering Science 68
Human Resources Management Association of BC Scholarship 61
Huntington Education Awards for Native People 110
Hy Alsenat Scholarship 57
Iain Ormsaig MacKinnon Memorial Award 74
IATSE-Motion Picture Technicians Union Local 891 Bursary 69
IBM Canada Limited Pacific Development Centre Scholarship – Science Council of British Columbia 86
ICABC Business Administration Co-Op Education Scholarship 100
ICABC Desmond O’Brien Memorial Scholarship 61
ICBC/Brian Jones Memorial Bursary in Criminology 69
Imperial Oil Resources – Native Educational Awards Program 110
Imperial Tobacco Canada Limited Scholarship Fund for Disabled Students 91
Indian and Northern Affairs Canada Post-Secondary Student Support Program 110
Indian/Inuit Health Careers Bursary Program 104
Indo-Canadian Wrestling Award 82
Ingrid Nystrom Archaeology Award 78
Institute for the Humanities Travel-Study Award 77
Insurance Institute of BC Bursary 104
Inter-American Development Bank Internship Program 90
Interior Logging Association Scholarship 92
International Initiatives in Deaf Studies Award (URDC) 111
International Space University – Summer Program 111
Intramural Involvement Award 82
IOED Burnaby Municipal Chapter Bursary 68
IOED Burnaby Municipal Chapter Bursary 72
IOED Evelyn Price Memorial Bursary 66
IOED Verna Allen Memorial Bursary 69
Ireland Canada University Foundation Short Term Visiting Scholarships 111
Irene May Surbery Bursary 68
Irene May Surbery Bursary 73
Irving K Barber Scholarship 85
Isabel Loucks Foster Public Health Scholarship Fund 90
ISACA Vancouver Chapter Scholarship 61
Ivanhoe Cambridge Bursary 77
J. Arno Bombardier Internationalist Fellowships (CBIE) 88
J. Douglas Ferguson Historical Research Foundation 109
J. Newton Robinson Memorial Scholarship 58
J.M. Ellis Innovative Map of the Year – Canadian Plan Competition 76
Jean G.K. Bailey Memorial Award 79
Jean K Davis/Bravo International Services Corp. PNB Award in Golf 82
Jean K Davis/Bravo International Services Corp. PNB Award in Golf 82
Jean Kunanyi Endowed Golf Award 81
Jay Triano Basketball Award 84
Jean Kunanyi Endowed Golf Award 81
John Buchanan Men’s Soccer Award 81
John Floyd Fellowship in Film Preservation – Association of Moving Image Archivists 111
John Johnstone Bursary in Visual Arts 78
John J Schumacher Minority Leadership Scholarship Program – Southwestern University School of Law 95
John J Schumacher Minority Leadership Scholarship Program – The West Coast Commercial Traveller’s Association of Canada 101
John Michael McLarty Bursary 65
John Rosborough Memorial Scholarship in Education 62
John Stell Sykes Scholarship 60
Jon-Lee Kootnekoff Basketball Award 82
Joseph and Rosalie Segal Scholarship 57
Judge Michael Stevenson Bursary Fund 106
Julie Kelly Humanitarian Award 74
Kazuya Shishido Memorial Bursary in Computing Science 68
Keg Restaurants Ltd Athletic Award 82
Keith and Betty Beidie Foundation Bursary in Business Administration 70
Keith and Betty Beidie Foundation Scholarship in Business Administration 60
Keith Gilbert Loughlin Bursary in Gerontology 69
Keith Franks Memorial Swimming Award 82
Keith O’Hagan Memorial Bursary 70
Ken and Su Jang Entrance Bursary 65
Ken and Su Jang Scholarship for Women in Science 58
Ken and Su Jang Scholarship for Women in Science 62
Ken Spencer SFU Business/Engineering Venture Plan Competition 76
Ken Spencer SFU Business/Engineering Venture Plan Competition 79
Ken Turner Memorial Endowment Fund Bursary 73
Ken Turner Memorial Endowment Fund Bursary 104
Kobzar Literary Award – Ukrainian Canadian Foundation of Teras Shevchenko 111
Kodak Fellowship in Film Preservation – Association of Moving Image Archivists 111
KPMG First Nations and Aboriginal Student Awards 92
Labatt Breweries Award in Soccer 82
Labatt Breweries of BC Limited Football Awards 82
Labatt Breweries Award in Soccer 82
Ladiaw Foundation Children at Risk, Aboriginal and Black Scholars Programs 92
Landmark Trust & Lumber Inc. Wrestling Award 83
Larry K Davis/Bravo International Services Corp. PNB Award in Golf 82
Laura (Pat) Band and Richard W. Band Bursary for First Nations Students 64
Laurence Mervyn Cox Bursary in English 69
Learning Through Services Program 111
Legal Studies for Aboriginal People Grants and
<table>
<thead>
<tr>
<th>Scholarship or Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>170 Scholarship</td>
</tr>
<tr>
<td>United Food and Commercial Workers Union, Local 1518, Scholarship 96</td>
</tr>
<tr>
<td>University College London Scholarships 96</td>
</tr>
<tr>
<td>University Women’s Club of the Comox Valley Bursary 106</td>
</tr>
<tr>
<td>University Women’s Club of Vancouver Bursary 67</td>
</tr>
<tr>
<td>University Women’s Club of Vancouver Laura Tripp Award 80</td>
</tr>
<tr>
<td>University Women’s Club of Vancouver Scholarship 58</td>
</tr>
<tr>
<td>University Women’s Club of Vancouver Women in Science Scholarship 59</td>
</tr>
<tr>
<td>University Women’s Club of Vancouver Women in Science Scholarship 63</td>
</tr>
<tr>
<td>University Women’s Club of Vancouver/Jean Beatty Memorial Bursary in Education 71</td>
</tr>
<tr>
<td>Urea Formaldehyde Foam Insulation Action Association Bursary 73</td>
</tr>
<tr>
<td>Valerie Ann Kilby Memorial Bursary 69</td>
</tr>
<tr>
<td>Valley Royals Award in Track and Field 84</td>
</tr>
<tr>
<td>VanCity Credit Union Bursary 72</td>
</tr>
<tr>
<td>Vancouver Elementary School Teachers’ Association Bursary 72</td>
</tr>
<tr>
<td>Vancouver Executives Association Bursary in Business Administration 71</td>
</tr>
<tr>
<td>Vancouver Foundation – Advanced Arts Study Awards 115</td>
</tr>
<tr>
<td>Vancouver Foundation First Nations Bursary 87</td>
</tr>
<tr>
<td>Vancouver Foundation Health Science Bursaries 68</td>
</tr>
<tr>
<td>Vancouver Foundation Health Science Bursaries 73</td>
</tr>
<tr>
<td>Vancouver Golf Club/MCL Motors Golf Tournament Award in Golf 85</td>
</tr>
<tr>
<td>Vancouver Korean Canadian Scholarship Foundation Scholarship Award 58</td>
</tr>
<tr>
<td>Vancouver Korean-Canadian Scholarship Award 96</td>
</tr>
<tr>
<td>Vancouver Mycological Society 96</td>
</tr>
<tr>
<td>Vancouver Police Department Scholarships 96</td>
</tr>
<tr>
<td>Vancouver Port Authority Undergraduate Scholarship in Geography 60</td>
</tr>
<tr>
<td>Vancouver Port Authority Undergraduate Scholarship in Geography 63</td>
</tr>
<tr>
<td>Vancouver Ski Club Award 85</td>
</tr>
<tr>
<td>Victor J. Sundberg Memorial Bursary in Engineering Science 68</td>
</tr>
<tr>
<td>Victor V. Spencer Award in Football 84</td>
</tr>
<tr>
<td>Village Credit Union Scholarship Program 96</td>
</tr>
<tr>
<td>Volunteer Recognition Awards 113</td>
</tr>
<tr>
<td>Volunteers of the Burnaby Art Gallery Award in Visual Arts 78</td>
</tr>
<tr>
<td>W. Lorne Davies Athletic Excellence Award 82</td>
</tr>
<tr>
<td>W. Lorne Davies Senior Graduation Award 82</td>
</tr>
<tr>
<td>W. Norman Burgess Scholarship 88</td>
</tr>
<tr>
<td>Water Polo Award 85</td>
</tr>
<tr>
<td>Watson Wyatt &amp; Company Scholarship in Actuarial Mathematics 63</td>
</tr>
<tr>
<td>Wayne Holm Football Scholarship 82</td>
</tr>
<tr>
<td>Webber Chemistry Co-op Book Prize 80</td>
</tr>
<tr>
<td>Welch Foundation Scholarship 97</td>
</tr>
<tr>
<td>West Coast Reduction Ltd Athletic Award 85</td>
</tr>
<tr>
<td>Westcoast Coalition for Human Dignity Community Service Award 75</td>
</tr>
<tr>
<td>Western Businesswomen’s Association Bursary 67</td>
</tr>
<tr>
<td>Westminster Savings Barry Butler Memorial Scholarship 61</td>
</tr>
<tr>
<td>Weyerhaeuser Canada Diversity Education Awards 113</td>
</tr>
<tr>
<td>Weyerhaeuser Company Limited Scholarship in Engineering Science and Environmental Science 59</td>
</tr>
<tr>
<td>Weyerhaeuser Company Limited Scholarship in Engineering Science and Environmental Science 63</td>
</tr>
<tr>
<td>White Rock Renegades Women’s Softball Awards 85</td>
</tr>
<tr>
<td>White Spot Limited Bursary 106</td>
</tr>
<tr>
<td>William A. (Bill) Stewart Volunteer Leadership Award 75</td>
</tr>
<tr>
<td>William and Amelia McMahan Scholarships 62</td>
</tr>
<tr>
<td>William and Jane Saywell Bursary 66</td>
</tr>
<tr>
<td>William and Mary Kostash Award for Film and Video Arts (URDC) 115</td>
</tr>
<tr>
<td>William Gordon Memorial Bursary 65</td>
</tr>
<tr>
<td>William L. Cleveland Essay Prize in African Middle-Eastern Asian History 77</td>
</tr>
<tr>
<td>William L. Hurford Memorial Scholarship (ILWU) 86</td>
</tr>
<tr>
<td>Winnie Topping Memorial Prize 78</td>
</tr>
<tr>
<td>Xerox Aboriginal Scholarships Program 85</td>
</tr>
<tr>
<td>Yolande D. Anderson Women’s Basketball Award 81</td>
</tr>
<tr>
<td>Yukon Foundation 97</td>
</tr>
<tr>
<td>Zajac Scholarship – BC Centre For Ability 97</td>
</tr>
<tr>
<td>Zoe Award in Painting or Sculpture 79</td>
</tr>
</tbody>
</table>
Faculty of Applied Sciences


Dean
B.S. Lewis BA (Hamilton), MA, PhD (Iowa)

Associate Deans
W.S. Parkhouse BPE (Alta), MPE, PhD (Br Col)
J.D. Jones BSc (Sus), PhD (Reading), PEng

Director, Diversity and Recruitment
H. Matsui MSc (LSE)

Advisors
Ms. M. Black MA (Royal Roads), 9861 Applied Science Building, 604.291.3254 Tel
Ms. L. McGregor BComm (McM), 9861 Applied Science Building, 604.291.5332 Tel

The Faculty of Applied Sciences offers programs in communication, computing science, engineering science, geographic information science, Interactive arts and technology, kinesiology, and resource and environmental management. Bringing together the University’s educational and research activities in the applied sciences, the faculty is concerned with major areas of applied science and technology, as well as human and social aspects of the application of science.

Undergraduate Degrees Offered
Bachelor of Applied Science (Honors)
Bachelor of Applied Science
Bachelor of Arts (Honors)
Bachelor of Arts
Bachelor of General Studies (Applied Sciences)
Bachelor of Science (Honors)
Bachelor of Science (Information Technology, Tech BC)
Bachelor of Science (Interactive Arts, Tech BC)
Bachelor of Science
Bachelor of Science (Kinesiology) (Honors)
Bachelor of Science (Kinesiology)

Diplomas and Certificates Offered

Residency Requirements
Simon Fraser University may award substantial transfer credit for course work completed elsewhere. These transfer credits reduce the amount of work that needs to be completed at Simon Fraser University for a credential, subject to minimum residency requirements for work completed at SFU. In addition to University-wide residency requirements, the Faculty of Applied Sciences also defines program-based residency requirements for each of its programs.

Overall, the residency requirements define three conditions that apply to every program offered through the Faculty of Applied Sciences.

• At least one half of the total credit hours in the program must be earned through study at Simon Fraser University.
• At least two thirds of the total upper division credit hours in the program must be earned through study at Simon Fraser University.
• At least two thirds of the upper division credit hours in the courses of a school offering (or jointly offering) a program must be earned through that school at Simon Fraser University.

These conditions apply to all undergraduate degree programs, post baccalaureate programs and certificate programs offered through the Faculty of Applied Sciences. The conditions also apply to the Faculty of Applied Sciences major, honors, minor, extended minor program and specialist programs that form part of an overall degree program, whether the degree program is offered by the Faculty of Applied Sciences or by any other faculty.

School of Communication

6135 Robert C. Brown Hall, 604.291.3887 Tel, 604.291.4024 Fax, www.sfu.ca/communication

New address effective December 2005
K9671 Shrum Science Centre, 604.291.3887 Tel, 604.291.4024 Fax, www.sfu.ca/communication

Director
M. Laba BA (York, Can), MA, PhD (NIld)

Professors
R.S. Anderson BA (Br Col), MA, PhD (Chic)
E. Balka BA (Wash), MA, PhD (S Fraser)
A.C.M. Beale BA, MA, PhD (McG)
A.L. Feenberq, BA (Johns H), MA, PhD (Calif), Canada Research Chair
R.S. Gruneau BA (Guelph), MA (Calg), PhD (Mass)
R.A. Hackett BA (S Fraser), MA, PhD (Qu)
L.M. Harasis BA, MA (Alta), PhD (Tor)
S. Kline BA (Tor), PhD (Lond)
B.S. Lewis BA (Hamilton), MA, PhD (Iowa), Dean of Applied Sciences
R.M. Lorimer BA, MA (Manit), PhD (Tor)
W.D. Richards, Jr. BA (Mich State), MA, PhD (Stan)
B.D. Truax BSc (Qu), MMus (Br Col)*

Associate Professors
P.S. Anderson BGS, MA (S Fraser)
P.M. Howard BA, MA (Regina), PhD (S Fraser)
M. Laba BA (York, Can), MA, PhD (Nfld)
C.A. Murray BA, MA (Wat), PhD (Qu)
R.K. Smith BA (Car), MA, PhD (S Fraser)
Y. Zhao BA (Beijing Broadcasting Institute), MA, PhD (S Fraser), Canada Research Chair

Assistant Professors
Z. Druck BA (O’sia), MA, PhD (York, Can)
S. Gunster BA (Vic, BC), MA, PhD (York, Can)
K. McAllister BA, MA (S Fraser), PhD (Car)
G. McCormon BA (S Fraser), MA, PhD (York, Can)

Lab Instructor
D.C. Murphy BA, MA (S Fraser)

Senior Lecturer
D. Gutstein BArch, MArch (Br Col)

Advisors
Ms. B. Delves, 6145 Robert C. Brown Hall, 604.291.5542 Tel, bvs@sfu.ca
Dr. G. McCarron, 6151 Robert C. Brown Hall, 604.291.3880, gomccarr@sfu.ca
Ms. L. Menkved, 6137 Robert C. Brown Hall, 604.291.3520, menkved@sfu.ca
Ms. M. Shimizu, 6139 Robert C. Brown Hall, 604.291.3862, mshimizu@sfu.ca

*joint appointment with contemporary arts

Faculty members are also available for student consultations.

Faculty and Areas of Research

The study of communication has recently emerged as an identified academic discipline. At the same time, a number of the traditional disciplines in the social sciences, the humanities, and the natural sciences employ communication approaches in various areas. Communication perspectives are also becoming prominent in the professions, notably in law, medicine, counselling, business, labour, education, trade, diplomacy, advertising, broadcasting, etc. As a social science, communication is distinctively trans-disciplinary.

The school has drawn on a number of perspectives, but is most readily distinguished by the fact that it treats communication as a humanistic social science, and is concerned with the contexts within which information in all its diverse forms is created, coded, communicated, and controlled. This approach provides students with wide opportunities to explore both communication theory and communication practice, as well as the relationship between the two. It encourages the concrete application of theory and research to modern society, its historical origins, its dominant values, its institutions and policies, its present structure, its current problems and its potential for change.

See “School of Communication” on page 270 for faculty’s areas of research.

Program of Studies

The school offers a specialized program leading to a bachelor of arts major or honors degree. It also offers a minor program and a variety of courses in communication for students in other degree programs in the University.

Employment opportunities for graduates of this program may be found in a number of different fields, including:

• a variety of communication-related organizations, in the broadcasting, cable TV, print, and telephone/telecommunications industries
• government agencies involved in communication, such as federal or provincial departments of communications, or regulatory agencies such as the CRTC, or other government agencies with a communication function, such as Consumer and Corporate Affairs, External Affairs, etc.
• public and private agencies involved in the examination and formation of public policy relating to communication technology, development, information flows, etc., at local, regional, national, and international levels
• large organizations (hospitals, school systems, corporations, etc.) as communication manager or specialist, doing liaison work with management and employees, communication; trouble-shooting, public relations, etc.
• specialized study of the acoustic aspects of communication and the sonic environment in such areas as acoustic documentation, sound pollution, etc.

An undergraduate degree in communication is also an appropriate preparation for graduate work, not only in communication, but also in other disciplines.

The school is interdisciplinary and international in its approach. It offers a program of study in three broad and interrelated areas of concentration. Courses in each of the areas are listed below for the guidance of students, but students are encouraged to take courses from more than one area in the School of Communication.

Simon Fraser University 2005 - 2006
Undergraduate

Areas of Concentration

Media and Culture

Technology and Society

Political Economy and Policy

Note: Courses may be listed in more than one area.

Enrolment Limitations

Admission to the upper division of the major, minor, honors and related joint programs is limited. Space in upper division CMNS courses is mostly reserved for students who have been formally accepted into such a program; only such students will be able to obtain the upper division courses necessary to complete the program. Exceptions may be made by instructors in consultation with the director of the school.

With approval of the Dean of Applied Sciences Office, the school will establish a yearly quota — the number of students that can be accommodated in the major/honors, joint major or minor programs. This quota will be established on the basis of projected available course space and school resources.

The school admits a limited number into its programs each semester, consistent with the overall quota, on the basis of a minimum CGPA announced two semesters in advance of the fall semester each year. The school will determine this annual minimum requirement for entry on the basis of the number of places available. Every applicant for a major, minor or joint major program whose CGPA is greater than, or equal to, the annually announced requirement will be admitted; under normal circumstances admission to a program will not be granted to any applicant who has a CGPA which is less than the admission CGPA set by the school.

These requirements apply equally to a transfer or second degree student.

Course Prerequisite Requirements

Registration in any communication course normally requires that students obtain a C- grade (or better) in each prerequisite.

A minimum cumulative grade point average of 2.25 and approval as a communication major, minor or publishing minor is required for entry into most communication upper division courses.

Transfer Credit and Residency Requirements

Transfer students are advised that residency requirements apply to all programs offered or jointly offered by the School of Communication. See “Residency Requirements” on page 124.

Major Program

Entry Requirements

Admission to the School of Communication is highly competitive.

Entry to this program is possible via direct admission from high school, via college or university transfer, or via internal transfer if admitted to another department or program at Simon Fraser University.

At time of printing, entry to the School of Communication is dependent upon a secondary school CGPA of 80% or better; college or university transfer CGPA of 3.00 (B; 75%) or better; or internal transfer (SFU) CGPA of 2.50 or better, upon completion of the lower division requirements below.

Continuation Requirement

Once approved for a major in communication, a student will be required to maintain a minimum CGPA of 2.25 to remain in good standing in the program (that is, to remain eligible to continue in the program).

Lower Division Requirements

Students must complete the following core courses.

CMNS 110-3 Introduction to Communication Studies
CMNS 130-3 Explorations in Mass Communication

Students must complete at least six (6) CMNS 200-level courses, including at least two of the following research methods courses. (Note that research methods courses are prerequisites to many upper division CMNS courses.)

CMNS 260-3 Empirical Communication Research Methods
CMNS 261-3 Documentary Research in Communication
CMNS 262-3 Design and Method in Qualitative Communication Research

Students must also complete at least one course from the course choices listed below for each area of concentration.

Media and Culture
CMNS 220, 221, 223 or 235.

Technology and Society
CMNS 210 or 253

Political Economy and Policy
CMNS 230 or 240

The remaining 200-level CMNS course(s) can be chosen from any area of concentration.

A grade of C- or better is mandatory in each of the required lower division CMNS courses.

Upper Division Requirements

Seven upper division (normally four credit) courses in communication must be completed. At least two of these shall be 400 level courses. Directed study and field placement courses may not be used to meet this requirement.

Normally, upper division courses may not be taken unless lower division course work has been completed, and normally, 75 credit hours must be taken prior to enrolment in 400 level courses.

External Requirements

In addition to CMNS courses, at least 60 credit hours must be chosen from disciplines other than communication including the following additional course work:

• a minimum of 12 credit hours chosen from Asia-Canada, contemporary arts, English, First Nations, French, general studies, history, humanities, Latin American studies, linguistics, philosophy, Spanish or other languages,

• a minimum of six credit hours chosen from biochemistry, biological sciences, chemistry, computing science, earth sciences, engineering science, environmental sciences, kinesiology, management and systems science, mathematics, molecular biology and biochemistry, physics, resource and environmental management, science, statistics; at least three credit hours of which must be from the Faculty of Applied Sciences (CMPT, ENSC, KIN, REM), and

• at least three credit hours of upper division course work (plus lower division prerequisites, if any) chosen from archaeology, business administration, BUEC, Canadian studies, community economic development, criminology, economics, education, geography, gerontology, political science, psychology, sociology and anthropology, women’s studies.

A minimum total of 45 upper division credit hours is required for the degree. This includes the required upper division CMNS courses, any additional upper division CMNS courses taken, and any upper division courses taken to fulfill the required 60 credit hours outside CMNS.

Communication Minor Program

Entry Requirements

Acceptance into the communication minor program is subject to enrolment limitations. Applicants will be accepted who have a minimum CGPA or transfer GPA of 2.50, upon completion of the lower division requirements.

Lower Division Requirements

Students must earn a grade of C- or better in each of the following courses.

CMNS 110-3 Introduction to Communication Studies
CMNS 130-3 Explorations in Mass Communication

Continuation Requirement

Once approved for a minor in communication, a student must maintain a minimum CGPA of 2.25 to remain in good standing.

Upper Division Requirements

Four upper division communication courses must be completed (together with lower division prerequisites, if any). Directed study and field placement courses may not be used to meet this requirement.

Publishing Minor Program

Entry Requirements

Acceptance into the publishing minor program is subject to enrolment limitations. Applicants will be accepted who have a minimum CGPA or transfer GPA of 2.50, upon completion of the lower division requirements.

Lower Division Requirements

Four of the following courses must be completed, each with a grade of C- or better. No more than two courses from each discipline can be counted.

CMNS 110-3 Introduction to Communication Studies
CMNS 130-3 Explorations in Mass Communication
CMNS 230-3 Introduction to Communication Media
CMNS 240-3 The Political Economy of Communication
ECON 103-3 Principles of Microeconomics
ECON 105-3 Principles of Macroeconomics
ENGL 210-3 Advanced University Writing
LING 100-3 Communication and Language
LING 110-3 The Wonder of Words
LING 260-3 Language, Culture, and Society

Continuation Requirement

Once approved for the publishing minor program, a student must maintain a minimum CGPA of 2.25 to remain in good standing.

Upper Division Requirements

Four courses must be chosen from the following.

CMNS 371-4 The Structure of the Book Publishing Industry in Canada
CMNS 372-4 The Publishing Process
CMNS 375-4 Magazine Publishing
CMNS 437-4 Media Democratization: From Critique to Transformation
CMNS 472-4 Books, Markets and Readers
CMNS 473-4 Publication Design and Print Production
CMNS 474-4 The Business of Publishing
CMNS 478-4 Publishing Project Group

Note: upper division CMNS courses taken for credit toward the publishing minor may not be counted as part of CMNS credit hours needed for an honors, joint major, extended minor or minor in communication.

Communication Extended Minor Program
This extended minor program may be part of a BA degree in the Faculty of Arts and Social Sciences, which includes two extended minors. Consult the Faculty of Arts and Social Sciences section for specific details about this option.

Entry Requirements
Acceptance into the extended minor program is subject to enrolment limitations. Applicants will be accepted who have a minimum CGPA or transfer GPA of 2.50, upon completion of the lower division requirements.

Lower Division Requirements
Students must complete the following core courses:
CMNS 110-3 Introduction to Communication Studies
CMNS 130-3 Explorations in Mass Communication
CMNS 200-level courses, including at least two of the following research methods courses. (Note that research methods courses are prerequisites to many upper division CMNS courses.)
CMNS 260-3 Empirical Communication Research Methods
CMNS 261-3 Documentary Research in Communication
CMNS 262-3 Design and Method in Qualitative Communication Research

Students must also complete at least one course from the course choices listed below for each area of concentration.

Media and Culture
CMNS 220, 221, 223 or 235.
Technology and Society
CMNS 210 or 253
Political Economy and Policy
CMNS 230 or 240

The remaining 200-level CMNS course(s) can be chosen from any area of concentration.

A grade of C- or better is mandatory in each of the required lower division CMNS courses.

Continuation Requirement
Once approved for an extended minor in communication, a student must maintain a minimum CGPA of 2.25 to remain in good standing.

Upper Division Requirements
Four upper division courses in communication must be completed (together with lower division prerequisites, if any). Directed study and field placement courses may not be used to meet this requirement.

Joint Major in Communication and Business Administration
See “Joint Major in Business Administration and Communication” on page 203 for requirements.

Joint Major in Communication and Canadian Studies
See “Joint Major Programs” on page 150 for requirements.

Joint Major in Communication and Latin American Studies
See “Communication” on page 181 for requirements.

Joint Major in Communication and Sociology/Anthropology
See “Joint Major in Sociology or Anthropology and Communication” on page 192 for requirements.

Honors Program
Entry Requirements
Communication majors wishing to apply to the honors program should provide the appropriate application form from the general office. The deadlines for application submission are March 15, July 15 and November 15 each year.

The main difference between the regular communication program and the honors program is that honors students complete an honors project (described below). The application form requires the student to describe the proposed honors project and obtain approval signatures: a communication faculty member who agrees to supervise the execution of the project, one other faculty member who agrees to be on the student's supervisory committee, and the honors co-ordinator.

The school reserves the right to limit the number of honors students if faculty resources are not available for supervision. In such cases, priority for honors program registration will be given to the students with a higher CGPA.

Students who have difficulty finding an honors supervisor should contact the school's honors co-ordinator.

Other admission requirements are as follows:
- completion of 75 credit hours of course work including the lower division requirements of the CMNS major,
- completion of at least one of CMNS 362 or 363, a minimum CGPA of 3.0 on all CMNS courses, and a minimum CGPA of 3.0 on all Simon Fraser University courses.

Continuation
To remain in this program, students must maintain a minimum CGPA of 3.0 or higher for all courses (including communication courses) taken in each semester. Students who do not meet this requirement may be dropped from the program but may apply for readmission at a later date.

Graduation Requirements
To receive honors in communication, students must:
- meet the graduation requirements of the communication major program,
- meet the honors graduation requirements of the University and the Faculty of Applied Sciences including at least 60 credits at the upper division successfully complete an honors project (CMNS 497 and 498)
- obtain certification by the undergraduate studies committee of satisfactory program completion.

Honors Project
Students must have completed at least 90 credit hours of university work with at least 20 credit hours in upper division communication courses before enrolling in the honors project. A plan must be approved by the faculty supervisors and by the honors co-ordinator before work is begun. A pamphlet describing the honors project requirements can be obtained from the school's general office.

The honors project is carried out in two stages: CMNS 497 and 498. CMNS 497 is offered every semester. Students may enrol in CMNS 498 in any semester subsequent to the one in which they complete CMNS 497.

Post Baccalaureate Diploma in Communication
This program is available for students who have already completed a degree.

Requirements
Successful completion of an approved program comprised of 30-32 credit hours of upper division or graduate level courses (normally eight 4-credit courses numbered 300 or above). Courses must be selected in consultation with a program advisor. At least five of the upper division courses (20 credits) must be in communication; the remaining 10-12 credits could be in related disciplines, such as sociology, Canadian studies, history, English, women's studies, etc.

Students may also be required to take some background lower division courses in preparation for the advanced courses. For example, a student who has a BA in an area not related to communication would be encouraged to take at least CMNS 110 and/or 130 before enrolling in any of the 300 and 400 level courses.

For information about the program's general regulations, see “Post Baccalaureate Diploma Program” on page 30.

Co-operative Education Program
Co-op education combines work experience with academic studies. The student spends alternate semesters on campus and in paid, study-related jobs.

Arrangements for the work experiences are made through the school's co-op co-ordinators and the University's Office of Co-operative Education. See “Co-operative Education” on page 240.

School of Computing Science

Director
J.P. Delgrande BSc, MSc, PhD (Tor)

Professors Emeriti
T.W. Calvert BSc(Eng) (Lond), MSEE (Wayne), PhD (Carnegie Tech), PEng
R. Harrop BA, MA, PhD (Camb)
T. Kameda BE, ME (Tokyo), PhD (Prin)
J.J. Weinik BSc (Xavier), MS (Chic), DSc (Washington U)

Professors
M.S. Atkins BSc (Nott), MPhil (Warw), PhD (Br Col)
B.K. Chattahcharya MSc (Calc), MSc, PhD (MCo)
F.W. Burton BSc, MA (Colorado), PhD (E Anglia)
R.D. Cameron BSc, PhD (Br Col)
V. Dahl MSc (Buenos Aires), PhD (Aix-Marseille I), Dipl d’Et App (Aix-Marseille II)
J.P Delgrande BSc, MSc, PhD (Tor)
B.V. Funt BSc, MSc, PhD (Br Col)
Q. Gu BS (Shandong), MS (Ibaraki), PhD (Tohoku)

Simon Fraser University 2005 • 2006
Admission Requirements

Undergraduate

Transfer Credit and Residency Requirements

Prerequisite Grade Requirement

Admission Requirements

Co-operative Education Program

Undergraduate 127 Faculty of Applied Sciences – School of Computing Science

Guaranteed Placement Program

Internal Transfer

Co-operative Education Program

Co-operative Education is a system which combines work experience with academic studies. The student spends alternate semesters on campus and in paid, study related jobs. Arrangements for the work experiences are made through the school’s co-op co-ordinators and the University’s Office of Co-operative Education. For further details, students should see “Co-operative Education” on page 240.

Transfer students are advised that residency requirements apply to all programs offered or jointly offered by the School of Computing Science. See “Residency Requirements” on page 124. Students may continue in the program for up to two years, provided that a CGPA of 2.40 or better is maintained.

It is strongly recommended that students who are considering this program meet with a School Academic Advisor within first two semesters of study. Go to: www.cs.sfu.ca/undergrad/Advising/

SFU students applying for admission to the School of Computing Science are selected on the basis of an admission Computing Related Grade Point Average. The CRGPA is calculated over seven courses chosen to satisfy the following breadth constraints.

• one writing course: PHIL 100, 120, TECH 101 or any 100 level ENGL course
• two mathematics courses chosen from: MACM 101, 201, MATH 151, 152 and 220
• two computing courses chosen from: CMPT 110, 120, or ENSC 150, 200, 220, 230, 250 and 270
• one physical sciences course: PHYS 101, 102, 120, 121, 122, EASC 101, GEOG 111, KIN 142, PHYS 101, 102, 120, 121, 125 or 126
• one social sciences course: ARCH 105, CMNS 110, 130, CNS 160, CRIM 101, ECON 103, 105, GEOG 100, HIST 105, POL 100, PSYC 100, REM 100, SA 101, 150, TECH 114 or WS 101.

No course may be included in the average if it is considered a duplicate of any previous course taken at Simon Fraser University or elsewhere. All seven courses must be completed prior to application. Students are encouraged to take additional courses. The admission CRGPA is calculated over the best seven courses that satisfy the constraints. For more information, go to: www.cs.sfu.ca/undergrad/.

Continuation Requirements

Students in computing science programs are expected to maintain a cumulative GPA of 2.4 or better. Students whose CGPA falls below 2.4 will be placed on probationary standing with the school. The number of courses available to probationary students may be limited. Each semester, probationary students are required to consult an advisor prior to course registration and must achieve either a semester GPA of at least 2.4 or an improvement in CGPA. Reinstatement from probationary standing occurs.
when the CGPA improves to 2.4 or better and is maintained.

Students must obtain permission from the department if they wish to take, for further credit, any course that is a prerequisite for a course the student has already completed with a grade of C- or higher.

**Second Degree Program**

This is a direct admission program and holders of a recognized Bachelor's degree in another discipline may follow this program to earn a second degree in Computing Science.

Applicants to SFU should indicate their interest in the program by selecting the B.Sc. major in Computing Science, Faculty of Applied Sciences as their first choice.

Applicants will be selected primarily based on their upper division (third and fourth year) performance in the prior Bachelor's degree and subsequent professional experience.

The program can be completed by the well-prepared student in one year (three semesters) of full-time study. The ideal preparation is a background in mathematics with programming experience comparable to the first two years of the computing science major program and a prior degree in which English was the language of instruction. Students without this background may require additional time to complete lower division prerequisites prior to the commencement of upper division credits.

In accord with SFU regulations, the second degree program consists of the upper division requirements of the full computing science degree. For a general B.Sc. degree with a major in computing science, 45 upper division credits must be completed, including the 39 credits of upper division coursework specified for the major.

**Major and Honors Programs**

These programs are organized so that students may take advantage of a number of options. Some of these are preparation for employment in computer related positions in government, business, or industry, and for graduate studies in computing science or a related area. The completion of a computing science undergraduate degree is also considered to be appropriate preparation for many interdisciplinary areas.

**Lower Division Requirements**

Students who plan to undertake a major, or honors in computing science must obtain credit for the courses listed below. It is suggested that students complete a recommended schedule of courses within the first two years of study.*

**Courses**

one of

CMPT 125-3 Introduction to Computing Science and Programming II**
CMPT 126-3 Introduction to Computing Science and Programming**
and all of

CMPT 150-3 Introduction to Computer Design
CMPT 225-3 Data Structures and Programming
CMPT 250-3 Introduction to Computer Architecture
CMPT 275-3 Software Engineering I
MACM 101-3 Discrete Mathematics I
MACM 201-3 Discrete Mathematics II
MATH 151-3 Calculus I
MATH 152-3 Calculus II
MATH 232-3 Elementary Linear Algebra
one writing course
four external breadth courses

(www.cs.sfu.ca/undergrad/Advising/ExternalBreadtLi st.html)
and one of

STAT 270-3 Introduction to Probability and Statistics I
BUEC 232-4 Data and Decisions I (with permission of an advisor)

49-53 credit hours

*The recommended schedule can be found at:
www.cs.sfu.ca/undergrad/Advising/programs_major s.html

**To aid in assessing your choice, prior to registration, please complete the self-evaluation test at:
www.cs.sfu.ca/undergrad/Advising/120-128/

**Writing Requirement**

Students must complete one of

PHIL 100-3 Knowledge and Reality
PHIL 120-3 Introduction to Moral Philosophy
TECH 101-3 Fundamentals of Teamwork and Communication II or any 100 level ENGL course

**Diversity Requirements**

Diversity requirements are met by selecting one course from the physical sciences list; one course from the social sciences list; and two courses from the liberal arts course list.

Physical Sciences (choose one)

BISC 100-4 Introduction to Biology
BISC 102-4 General Biology
CHEM 120-3 General Chemistry I
CHEM 121-4 General Chemistry and Laboratory I
CHEM 122-2 General Chemistry II
EASC 101-3 Physical Geology
GEOG 111-3 Physical Geography
KIN 142-3 Introduction to Kinesiology
PHYS 101-3 General Physics I
PHYS 102-3 General Physics II
PHYS 120-3 Modern Physics and Mechanics
PHYS 121-3 Optics, Electricity and Magnetism
PHYS 125-3 Mechanics and Special Relativity
PHYS 126-3 Electricity, Magnetism and Light

Social Sciences (choose one)

ARCH 105-3 The Evolution of Technology
CMNS 110-3 Introduction to Communication Studies
CMNS 130-3 Explorations in Mass Communication
CNS 160-3 The Social Background of Canada
CRIM 101-3 Introduction to Criminology
ECON 103-3 Principles of Microeconomics
ECON 105-3 Principles of Macroeconomics
GEOG 100-3 Human Geography
HIST 106-3 Western Civilization from the Reformation Era to the 20th Century

POL 100-3 Introduction to Politics and Government
PSYC 100-3 Introduction to Psychology I
REM 100-3 Global Change
SA 101-4 Introduction to Anthropology (A)
SA 150-4 Introduction to Sociology (S)
TECH 114-3 History and Theory of Technology and Culture
WS 101-3 Introduction to Women’s Issues in Canada

Two Liberal Arts courses must be selected from the list published by the School of Computing Science:
www.cs.sfu.ca/undergrad/Advising/ExternalBreadthLi st.html

**Upper Division Requirements**

Major and honors students are required to consult an advisor before commencing their upper division coursework. For more information, go to www.cs.sfu.ca/undergrad/Advising/.

The primary upper division requirements for a major or honors are structured according to breadth, depth and credential requirements listed below.

**Table I – Computing Science Concentrations**

**Artificial Intelligence**

CMPT 310-3 Artificial Intelligence Survey
CMPT 411-3 Knowledge Representation
CMPT 412-3 Computational Vision
CMPT 413-3 Computational Linguistics
CMPT 414-3 Model-Based Computer Vision
CMPT 417-3 Intelligent Systems
CMPT 418-3 Computational Cognitive Architecture
CMPT 419-3 Special Topics in Artificial Intelligence

**Computer Graphics and Multimedia**

CMPT 361-3 Introduction to Computer Graphics
CMPT 363-3 User Interface Design
CMPT 365-3 Multimedia Systems
CMPT 461-3 Advanced Computer Graphics
CMPT 466-3 Animation
CMPT 469-3 Special Topics in Computer Graphics

**Computing Systems**

CMPT 300-3 Operating Systems I
CMPT 371-3 Data Communications and Networking
CMPT 379-3 Principles of Compiler Design
CMPT 400-3 High-Performance Computer Architecture
CMPT 401-3 Operating Systems II
CMPT 471-3 Networking II
CMPT 479-3 Special Topics in Computing Systems
CMPT 499-3 Special Topics in Computer Hardware

**Information Systems**

CMPT 301-3 Information Systems Management
CMPT 354-3 Database Systems I
CMPT 370-3 Information System Design
CMPT 454-3 Database Systems II
CMPT 459-3 Special Topics in Database Systems
CMPT 470-3 Web-based Information Systems
CMPT 475-3 Software Engineering II

**Programming Languages and Software**

CMPT 383-3 Comparative Programming Languages
CMPT 384-3 Symbolic Computing
CMPT 480-3 Foundations of Programming Languages
CMPT 481-3 Functional Programming
CMPT 487-3 Software Engineering Tools and Environments
CMPT 489-3 Special Topics in Programming Languages

**Theoretical Computing Science**

CMPT 307-3 Data Structures and Algorithms
CMPT 308-3 Computability and Complexity
CMPT 405-3 Design and Analysis of Computing Algorithms
CMPT 406-3 Computational Geometry
CMPT 407-3 Computational Complexity
CMPT 408-3 Theory of Computer Networks/Communications
CMPT 409-3 Special Topics in Theoretical Computing Science

**MACHINE Language**

MACH 300-3 Introduction to Formal Languages and Automata with Applications

**Table II – Intensive Application Courses**

CMPT 305-3 Computer Simulation and Modelling
CMPT 340-3 Computers in Biomedicine
CMPT 341-3 Introduction to Computational Biology

**Table III – Computing Mathematics Courses**

M ACM 316-3 Numerical Analysis I
M ACM 401-3 Symbolic Computation
MATH 308-3 Linear Programming
MATH 343-3 Combinatorial Aspects of Computing
MATH 416-3 Numerical Analysis II

**Upper Division Requirements for a Major**

For a major, students must satisfy the following requirements.

**Breadth Requirement**

Five courses from five different areas of concentration in Table I must be completed including CMPT 300 and 307. CMPT 354 is recommended. 15 credit hours
Depth Requirement
Twelve credits of additional CMPT courses numbered CMPT 400 or above must be completed (excluding CMPT 415 and 416).
12 credit hours
www.cs.sfu.ca

BSc Credential
For a BSc degree with a major in computing science, the following additional requirements must be met.
- two additional courses chosen from tables I, II or III must be completed.
- MACM 316 and
- CMPT 320 or CMNS 353
Other courses may be approved on submission of a detailed course outline to the school.
12 credit hours

BA Credential
For a BA degree with a major in computing science within the Faculty of Applied Sciences, the following additional requirements must be met.
- one additional CMPT upper division course chosen from table I or table II must be completed bringing the total upper division credit hours in CMPT courses to a minimum of 30 credit hours.
- a concentration of 15 credit hours in a Faculty of Arts and Social Sciences discipline (department) including at least six credit hours of upper division credit.

Graduation Requirements
For all major programs in computing science, the upper division CMPT GPA of 2.0 must be maintained.

Undergraduate 129 Faculty of Applied Sciences – School of Computing Science

Specialist Programs
Students must consult an advisor before commencing a specialist program, preferably early in their second year. Go to: www.cs.sfu.ca/undergrad/Advising/.

Specialist Program in Multimedia Computing
Lower Division Requirements
Students must complete all lower division requirements for the computing science major program plus
FPA 111-3 Issues in the Fine and Performing Arts plus at least two of
CMNS 259-3 Acoustic Dimensions of Communication I
FPA 147-3 Introduction to Electroacoustic Music
FPA 247-3 Electroacoustic Music I
FPA 289-3 Special Topics in the Fine and Performing Arts I
FPA 290-3 Video Production I

Upper Division Requirements
Students must complete at least 39 credit hours of computing science upper division courses, which should include CMPT courses in the following required and elective courses.

Students must complete all of
CMPT 300-3 Operating Systems I
CMPT 307-3 Data Structures and Algorithms
CMPT 320-3 Social Implications of a Computerized Society
CMPT 381-3 Introduction to Computer Graphics
CMPT 363-3 User Interface Design
CMPT 365-3 Multimedia Systems
MACM 316-3 Numerical Analysis I

At least six of the following are required, three of which must be at the 400 level, three must be designated CMPT and two must be non-CMPT courses.

CMNS 358-4 Sound Tape Recording: Theory and Uses
CMNS 359-4 Acoustic Dimensions of Communication II
CMPT 310-3 Artificial Intelligence Survey
CMPT 354-3 Database Systems and Structures
CMPT 371-3 Data Communications and Networking
CMPT 412-3 Computational Vision
CMPT 414-3 Model-Based Computer Vision
CMPT 451-3 Advanced Computer Graphics
CMPT 466-3 Animation
CMPT 469-3 Special Topics in Computer Graphics
FPA 311-5 The Arts in Context: Selected Topics
FPA 353-3 Playmaking IV
FPA 390-3 Video Production II

18 credit hours

Relevant FPA and CMNS lower and upper division special topics courses may be applied to the above requirement with the approval of the director of undergraduate studies in the School of Computing Science. Some FPA courses listed above require prerequisites that are not included here.

Specialist Program in Software Engineering
The completion of a bachelor of science degree in computing science with the completion of a specialist program in software engineering is not a professional engineering degree as it is not certified by professional engineering societies. It is instead an area of study recognized by computing science.

Lower Division Requirements
These requirements are identical to those of the major and honors program listed above.

Upper Division Requirements
Required Courses
Students must complete all of the following courses.
CMPT 300-3 Operating Systems I
CMPT 307-3 Data Structures and Algorithms
CMPT 320-3 Social Implications of a Computerized Society
CMPT 354-3 Database Systems I
CMPT 363-3 User Interface Design
CMPT 371-3 Data Communications and Networking
CMPT 475-3 Software Engineering II
MACM 316-3 Numerical Analysis I

24 credit hours

Elective Courses
Students must complete five or more courses chosen from the following list, at least three of which must be at the 400 level.

CMPT 301-3 Information Systems Management
CMPT 370-3 Information System Design
CMPT 379-3 Principles of Compiler Design
CMPT 383-3 Comparative Programming Languages
CMPT 401-3 Operating Systems II
CMPT 454-3 Database Systems II
CMPT 459-3 Special Topics in Database Systems
CMPT 470-3 Web-based Information Systems
CMPT 471-3 Networking II
CMPT 487-3 Software Engineering Tools and Environments
CMPT 489-3 Special Topics in Programming Languages
ENSC 351-4 Real Time and Embedded Systems

15 credit hours

Additional upper CMPT courses are required to bring the total CMPT credits to 45 or more (ENSC 351 is treated as CMPT credit for this purpose).

6 credit hours

Minor Program

Minor Admission Requirements
Admission to a minor in computing science is open to all SFU students with a major in a discipline other than computing science. Admission is competitive and requires the completion of the lower division courses listed below. The admission GPA is established each semester, and will never be less than 2.40.

Lower Division Requirements
Students who plan to undertake a minor in computing science should normally obtain credit for the following lower division courses.
- one of
  CMPT 125-3 Introduction to Computing Science and Programming II
  CMPT 126-3 Introduction to Computing Science and Programming*
  and all of
  CMPT 300-3 Operating Systems I
  CMPT 307-3 Data Structures and Algorithms
  MACM 101-3 Discrete Mathematics I
  MATH 151-3 Calculus I
  and one of
  CMPT 250-3 Introduction to Computer Architecture
  CMPT 275-4 Software Engineering I
  and one of
  PHIL 100-3 Knowledge and Reality
  PHIL 120-3 Introduction to Moral Philosophy

www.cs.sfu.ca
Upon completion, students receive a dual degree in Computing Science. The option for Co-operative education is available to students throughout the 5-year program, plus a $700 Program Fee.

During their first year, students are scheduled according to the articulation tables provided by the SFU-ZU admissions committee, School of Computing Science. Concurrent to the SFU admission application, students must meet the standard requirements for admission to the program. The program begins each fall semester. Applicants should indicate their interest in the program by selecting the ‘China Dual Degree Zhejiang U’ under the Program / Plan in Computing Science, Faculty of Applied Sciences. For more information, please contact an advisor at www.cs.sfu.ca/undergrad/Advising/120-126/.

Admission
This is a direct admission program. Applicants to SFU should indicate their interest in the program by selecting the ‘China Dual Degree Zhejiang U’ under Program/Plan in Computing Science, Faculty of Applied Sciences in their Application for Undergraduate Admission to Simon Fraser University. Admission is competitive and enrollment is limited. The program begins each fall semester. Applicants must meet the standard requirements for admission to SFU and the School of Computing Science. Concurrent to the SFU admission application, students must also submit a ‘Statement of Interest’ to the SFU-ZU admissions committee, School of Computing Science. Applicants will be selected based on their Standard of Interest and their academic standing. Program admission inquiries may be sent to sfuchina@sfu.ca.

Program Structure
This 5-year program is a cohort program. All core courses are scheduled according to the articulation documents at www.cs.sfu.ca/sfu-zu. Students are responsible for their own travel, accommodation, insurance, textbooks and general living expenses. While in China, students’ books, housing, meals, transportation and other living expenses will be lower than in Canada.

Dual Degree Credential
Students must complete 150 SFU credit hours, excluding credits associated with Co-op. Within the 150 credit hours, the following requirements must be met.

• SFU students may use at most 15 credits of Chinese language to meet the 150 credits requirement for the degrees.

Students must complete the core courses as specified in the articulation documents at www.cs.sfu.ca/sfu-zu. For SFU students this means the completion of: CMPT 120, 125, MACM 101 and ASC 200. For Zhejiang University students, the following requirements must be met:

• MACM 316-3 Numerical Analysis I
• CMPT 300-3 Operating Systems I
• CMPT 307-3 Data Structures and Algorithms
• CMPT 354-3 Database Systems I
• CMPT 371-3 Data Communications and Networking
• 2 x CMPT 3xx-3 from two different concentrations selected from Artificial Intelligence, Computer Graphics and Multimedia, or Programming Languages and Software (see Table I)
• 4 x CMPT 4xx-3 from four different areas in Table I
• Upper level electives-12
• Capstone projects-6 at either Semester 10 or Summer 2, the projects will be proposed and supervised by SFU faculty members

Co-operative Education
Students may choose to use two semesters for Co-operative Education. Due to visa and Co-op restrictions, the final program semester may not be used for Co-operative Education.

Joint Major in Computing Science and Molecular Biology and Biochemistry
The School of Computing Science and the Department of Molecular Biology and Biochemistry co-operate in offering this joint major program. Students must complete the major requirements in accordance with the Department of Molecular Biology and Biochemistry section (page 230) under the Faculty of Science.

Student registration, appeals and graduation processing are handled by the School of Computing Science in the Faculty of Applied Sciences (www.cs.sfu.ca). Please contact an advisor at www.cs.sfu.ca/undergrad/Advising/.

Certificate in Computing Studies
This program provides both part time and full time students with an opportunity to understand the fundamentals of computers and programming without necessarily specializing in computing science. Admission is governed by Simon Fraser University admission regulations.

Program Requirements
This certificate requires completion of from 25 to 28 credit hours of required course work and electives, as follows.
Notes
A 2.0 GPA is required on the CMPT courses used for this certificate and ONLY courses taken at SFU are used in this calculation.

Programs Offered
Engineering Science Program
This program leads to a BASc or BSc (Honors) degree.

Minor in Computer and Electronics Design
This program is available to all non-engineering science majors at Simon Fraser University who have high academic standing. This program does not lead to an accredited engineering degree.

Admission
Students must be eligible for University admission and must submit applications as described in Admission and Readmission. Strong performance in mathematics 12, physics 12, chemistry 12 and English 12 is expected. The School of Engineering Science makes the final decision on all applications. See “Admission and Readmission” on page 33 for complete admission requirements.

Transfer Credit and Residency Requirements
Transfer students are advised that residency requirements apply to all programs offered by the School of Engineering Science. See “Residency Requirements” on page 124.

BASc Program
BASc Program engineering science students develop skills in systems design along with a high level of scientific knowledge. This demanding program is aimed at the superior student. The program’s goal is to produce well educated, innovative engineer/scientists who have entrepreneurial skills and attitudes and who are oriented to new technologies. Program entry is on a competitive basis.

Undergraduate 131 Faculty of Applied Sciences – School of Engineering Science
Students may participate in additional work semesters but are encouraged to seek diversity in their experience.

The three mandatory work semesters may include one special co-op semester (ENSC 196, 296, 396). Special co-op may include, but is not restricted to, self-directed, entrepreneurial, service or research co-op work terms. Permission of the engineering science co-op office is required.

An optional non-technical work semester (ENSC 194) is also available through the engineering science co-operative education office and is often taken after the first two semesters of study. ENSC 194 does not count toward the mandatory three course requirement.

The engineering science co-operative education program will also seek opportunities for students wishing to complete their thesis requirements in an industrial setting.

BA.Sc. Requirements
All requirements of one of the five options must be completed. Each option provides a mix of basic science, general studies, engineering science, specialized engineering and science, plus project and laboratory work. For an honors in any option, a third year project (ENSC 340) and an undergraduate thesis (ENSC 498 and 499) must be completed. For a general degree option other than engineering physics and biomedical engineering, a capstone project course (ENSC 440) must be completed. The engineering physics and biomedical engineering options are only available with the honors. (G)

Graduation with BASc (honors) requires both a cumulative grade point average (CGPA) and an upper division grade point average (UGDPA) of at least 3.0. Graduation in the general BASc program requires a 2.4 CGPA and UDGPA.

Students must complete a three semester co-op education program of practical experience in an appropriate industrial or research setting leading to a project under the technical direction of a practising engineer or scientist. The internship may be within the University but in most cases the work site is off campus. A member of the external organization and a school faculty member jointly supervise the project. Specialized study is completed in one of five options: electronics engineering, computer engineering, engineering physics, systems and biomedical engineering (see below).

Although there is no strict requirement to follow these course sequences, taking less may lead to scheduling and prerequisite problems in subsequent semesters. Failure to take courses identified with an asterisk in the designated semester will almost certainly lead to consequences of deviating from this schedule are the responsibility of the student.

Courses are only required by the program option that appears in parenthesis next to them: B (biomedical engineering option), C (computer engineering option), E (electronics engineering option), P (engineering physics option), and S (systems option). As an example, a student in the systems option in his/her third semester would be expected to carry 18 credit hours, and should take MACT 101 and MATH 251. Students may replace one of their engineering science electives with an approved course. A pre-approved list of complementary studies courses is available from the School of Engineering Science.

Electronics Engineering Option
This specialization within electrical engineering directly relates to microelectronic and its applications in communications, control and computing. Engineers in this field are involved with the design and fabrication of systems utilizing electronic components and subsystems.

Courses and Typical Schedule
The courses and typical schedule for both the general degree and the honors degree are listed below. The notation (G) is used for requirements applying to the general degree only, while the notation (H) is used for requirements applying to the honors degree only.

Semester One (Fall)
CHEM 121-4 General Chemistry and Laboratory I
ENSC 100-3 Engineering Technology and Society*
ENSC 101-1 Writing Process, Persuasion and Presentations*
ENSC 150-3 Introduction to Computer Design*
MATH 151-3 Calculus I*
PHYS 120-3 Modern Physics and Mechanics* 17 credit hours

Semester Two (Spring)
CMPT 128-3 Introduction to Computing Science and Programming for Engineers*
ENSC 102-1 Form, Style and Professional Genres*
ENSC 151-2 Digital and Computer Design Laboratory*
MATH 152-3 Calculus II*
MATH 232-3 Elementary Linear Algebra*
PHYS 121-3 Optics, Electricity and Magnetism*
PHYS 131-2 General Physics Laboratory B*

Semester Three (Fall)
CHEM 1xx-3 contact School of Engineering Science for details (B)
CMPT 225-3 Data Structures and Programming (B)
ECON 103-3 Principles of Microeconomics
ENSC 220-2 Principles of Wiring and Communication Circuits I*
ENSC 220-3 Introduction to Computer Architecture*
MACM 101-3 Discrete Mathematics I* (C,S)
MATH 251-3 Calculus III*
MATH 310-3 Introduction to Ordinary Differential Equations*
PHYS 211-3 Intermediate Mechanics* (P)
STAT 270-3 Introduction to Probability and Statistics* (E)

Semester Four (Summer)
CMpl I-3 first complementary elective1 (P,S)
CMPT 225-3 Data Structures and Programming* (C,S)
ENSC 201-3 The Business of Engineering
MACM 201-3 Introduction to Graph Theory
ENSC 224-3 Electronic Devices* (C,P,S)
ENSC 225-4 Microelectronics I*
ENSC 230-3 Electric Circuits II* (P,E,S)
ENSC 230-4 Microelectronics II*
ENSC 320-3 Electronic Devices II* (B,C,E)
ENSC 350-3 Digital Systems Design (B)
MACM 208-3 Introduction to Physiological Systems* (B)
MATH 254-3 Vector and Complex Analysis* (B,E,P)
PHYS 221-3 Intermediate Electricity and Magnetism* (P,E,S)
STAT 270-3 Introduction to Probability and Statistics* (C,P,S)

17 credit hours

*should be taken in the designated semester; consequences of deviating from this schedule are the responsibility of the student.

Courses are only required by the program option that appears in parenthesis next to them: B (biomedical engineering option), C (computer engineering option), E (electronics engineering option), P (engineering physics option), and S (systems option). As an example, a student in the systems option in his/her third semester would be expected to carry 18 credit hours, and should take MACT 101 and MATH 251.

1must be an approved course. A pre-approved list of complementary studies courses is available from the School of Engineering Science.

Semester Five (Spring)
ENSC 330-4 Engineering Materials
ENSC 350-3 Digital Systems Design
ENSC 351-4 Real Time and Embedded Systems*
ENSC 380-3 Linear Systems*
PHYS 324-3 Electromagnetics 18 credit hours

Semester Six (Fall)
CMpl I-3 first complementary elective1 (G)
ENSC 305-1 Project Documentation and Team Dynamics* (H)
ENSC 325-4 Microelectronics II*
ENSC 327-4 Communication Systems*
ENSC 340-4 Engineering Science Project* (H)
ENSC 383-4 Feedback Control Systems*
Sce I-3 science elective1 (G) 18 credit hours (G); 17 credit hours (H)

Semester Seven (Spring)
CMpl I-3 first complementary elective1 (H)
ENSC 305-1 Project Documentation and Team Dynamics* (G)
ENSC 440-4 Capstone Engineering Science Project (G)
Ensc I-4 first Engineering Science elective2 Ensc II-4 second Engineering Science elective2
Ensc IV-4 fourth Engineering Science elective2 Ensc V-4 fifth Engineering Science elective2 (G)
ENSC 201-3 The Business of Engineering
Sce I-3 science elective1 (H) 18 credit hours (G); 17 credit hours (H)

Other Requirements
ENSC 498-3 Engineering Science Thesis Proposal (H)
ENSC 499-9 Engineering Science Undergraduate Thesis (H)
Total 141 credit hours (G); 152 credit hours (H)

*should be taken at this point in the program; consequences of deviations from this schedule are the responsibility of the student.

1must be an approved course. A pre-approved list of complementary studies courses is available from the School of Engineering Science.

2chosen from ENSC 424, 425, 426, 427, 428, 429, 450, 481, 483, 488, 489, 495. With permission of the undergraduate curriculum committee chair, students may replace one of their engineering science electives by either a directed study or a special project laboratory course. Special Topics courses that have been approved by the undergraduate curriculum committee chair and the director may be counted here.

1must be an approved course; consult pre-approved electives list available from the school. Under special circumstances, approval for other courses from the
undergraduate curriculum committee chair may be granted.

Note: In the typical schedule shown above, honors students will start their thesis work (ENSC 498 and 499) between semesters seven and eight. This work can be done on or off campus, either integrated with an optional (or mandatory) work term or as independent work with appropriate supervision.

Computer Engineering Option

The dynamic, on-going development and application of computer and digital systems requires computer systems engineers to have a balanced capability in software and hardware, and a solid engineering base.

Courses and Typical Schedule

The courses and typical schedule for both general and honors are listed. The notation (G) is for general degree requirements only, while (H) is for requirements applying to the honors degree only.

Semester Five (Spring)

CMPT 276-4 Software Engineering\*  
MACM 201-3 Discrete Mathematics II*  
ENSC 304-1 Human Factors and Usability Engineering*  
ENSC 350-3 Digital Systems Design  
ENSC 351-4 Real Time and Embedded Systems*  
ENSC 380-3 Linear Systems*  
18 credit hours

Semester Six (Fall)

Cmpl I-3 first complementary elective\* (G)  
ENSC 305-1 Project Documentation and Team Dynamics* (H)  
ENSC 325-4 Microelectronics II*  
ENSC 327-4 Communication Systems*  
ENSC 340-4 Engineering Science Project* (H)  
ENSC 383-4 Feedback Control Systems*  
Sce I-3 first science elective\* (G)  
18 credit hours (G); 17 credit hours (H)

Semester Seven (Spring)

Cmpl I-3 first complementary elective\* (H)  
CMPT 300-3 Operating Systems I  
ENSC 305-1 Project Documentation and Team Dynamics* (G)  
ENSC 440-4 Capstone Engineering Science Project (G)  
Ensc I-4 first Engineering Science elective\*  
ENSC 406-2 Social Responsibility and Professional Practice  
MACM 316-3 Numerical Analysis I  
Sce I-3 first science elective\* (H)  
17 credit hours (G); 18 credit hours (H)

Semester Eight (Fall)

Cmpl II-3 second complementary elective\*  
Ensc II-4 second Engineering Science elective\*  
ENSC 201-3 The Business of Engineering  
ENSC 450-4 VLSI Systems Design  
Sce II-3 second science elective\*  
17 credit hours (G); 17 credit hours (H)

Other Requirements

ENSC 498-3 Engineering Science Thesis Proposal (H)  
ENSC 499-9 Engineering Science Undergraduate Thesis (H)  
Total 139 credit hours (G); 151 credit hours (H)

*should be taken in the designated semester; consequences of deviating from this schedule are the responsibility of the student.

1must be an approved course. A pre-approved list of complementary studies courses is available from the School of Engineering Science.

2chosen from ENSC 424, 425, 426, 427, 428, 429, 481, 483, 488, 489, 495. With permission of the undergraduate curriculum committee chair, students may replace one of their engineering science electives by either a directed study or a special project laboratory course. Special Topics courses that have been approved by the undergraduate curriculum committee chair and the director may be counted here.

3must be an approved course; consult the pre-approved electives list available from the school. Under special circumstances, approval for other courses from the undergraduate curriculum committee chair may be granted.

Note: In the typical schedule shown above, honors students will start their thesis work (ENSC 498 and 499) between semesters seven and eight. Theses can be done on or off campus, either integrated with an optional (or mandatory) work term or as independent work with appropriate supervision.

Engineering Physics (Electronics) Option

This option prepares for work in engineering, applied sciences and is strongly dependent on a sound knowledge of physics and engineering fundamentals.

Courses and Typical Schedule

The courses and typical schedule for the honors degree are listed below. The Engineering Physics option is not available through the general degree.

Semester Five (Spring)

Cmpl II-3 second complementary elective\*  
ENSC 304-1 Human Factors and Usability Engineering*  
ENSC 320-3 Electric Circuits II*  
ENSC 351-4 Real Time and Embedded Systems*  
ENSC 380-3 Linear Systems*  
PHYS 232-2 Introductory Physics Laboratory A*  
PHYS 324-3 Electromagnetics*  
19 credit hours

Semester Six (Fall)

ENSC 305-1 Project Documentation and Team Dynamics*  
ENSC 325-4 Microelectronics II*  
ENSC 327-4 Communication Systems*  
ENSC 340-4 Engineering Science Project*  
ENSC 383-4 Feedback Control Systems*  
17 credit hours

Semester Seven (Spring)

Ensc I-4 first Engineering Science elective\*  
Ensc II-4 second Engineering Science elective\*  
ENSC 406-2 Social Responsibility and Professional Practice*  
PHYS 344-3 Thermal Physics  
PHYS 355-3 Semiconductor Device Physics  
PHYS 383-3 Quantum Physics  
19 credit hours

Semester Eight (Fall)

Ensc III-4 third Engineering Science elective\*  
ENSC 201-3 The Business of Engineering  
PHYS 332-3 Intermediate Laboratory  
PHYS 384-3 Methods of Theoretical Physics  
PHYS 385-3 Optics  
Phys 4XX-3 physics elective  
19 credit hours

Other Requirements

ENSC 498-3 Engineering Science Thesis Proposal  
ENSC 499-9 Engineering Science Undergraduate Thesis  
Total 155 credits

*should be taken in the designated semester; consequences of deviating from this schedule are the responsibility of the student.

1must be an approved course. A pre-approved list of complementary studies courses is available from the School of Engineering Science.

2chosen from ENSC 424, 425, 426, 427, 428, 429, 450, 481, 483, 488, 489, 495. With permission of the undergraduate curriculum committee chair, students may replace one engineering science elective by either a directed study or a special project laboratory course. Special Topics courses that have been approved by the undergraduate curriculum committee chair and the director may be counted here.

3must be an approved course; consult pre-approved electives list available from the school. Under special circumstances, approval for other courses from the undergraduate curriculum committee chair may be granted.

Note: In the typical schedule shown above, students will start their thesis work (ENSC 498 and 499) between semesters seven and eight. This work can be done on or off campus, either integrated with an optional (or mandatory) work term or as independent work with appropriate supervision.

Systems Option

This option prepares for careers in design and integration of computer-controlled machines, and provides for graduate study in robotics, control and mechatronic systems. Students integrate knowledge from electronic engineering, mechanical engineering, and computer engineering into the fundamental design process. This focused program includes study of mechanical structures and mechanisms, electro-mechanical sensors and actuators, control engineering, and real-time systems. Electives may be used to tailor curriculum to specific interests.

Courses and Typical Schedule

The courses and typical schedule for both the general degree and the honors degree are listed below. The notation (G) is used for requirements applying to the general degree only, while the notation (H) is used for requirements applying to the honors degree only.

Semester Five (Spring)

ENSC 330-4 Introduction to Mechanical Design*  
ENSC 304-1 Human Factors and Usability Engineering*  
ENSC 320-3 Electric Circuits II*  
ENSC 330-4 Engineering Materials  
ENSC 351-4 Real Time and Embedded Systems*  
ENSC 380-3 Linear Systems*  
19 credit hours

Semester Six (Fall)

Cmpl II-3 second complementary elective\*  
ENSC 305-1 Project Documentation and Team Dynamics*  
ENSC 325-4 Microelectronics II*  
ENSC 327-4 Communication Systems*  
ENSC 340-4 Engineering Science Project*  
ENSC 383-4 Feedback Control Systems*  
17 credit hours

Semester Seven (Spring)

Ensc I-4 first Engineering Science elective\*  
Ensc II-4 second Engineering Science elective\*  
ENSC 406-2 Social Responsibility and Professional Practice*  
PHYS 344-3 Thermal Physics  
PHYS 355-3 Semiconductor Device Physics  
PHYS 383-3 Quantum Physics  
19 credit hours

Semester Eight (Fall)

Ensc III-4 third Engineering Science elective\*  
ENSC 201-3 The Business of Engineering  
PHYS 332-3 Intermediate Laboratory  
PHYS 384-3 Methods of Theoretical Physics  
PHYS 385-3 Optics  
Phys 4XX-3 physics elective  
19 credit hours

Other Requirements

ENSC 498-3 Engineering Science Thesis Proposal  
ENSC 499-9 Engineering Science Undergraduate Thesis  
Total 155 credits

*should be taken in the designated semester; consequences of deviating from this schedule are the responsibility of the student.

1must be an approved course. A pre-approved list of complementary studies courses is available from the School of Engineering Science.

2chosen from ENSC 424, 425, 426, 427, 428, 429, 450, 481, 483, 488, 489, 495. With permission of the undergraduate curriculum committee chair, students may replace one engineering science elective by either a directed study or a special project laboratory course. Special Topics courses that have been approved by the undergraduate curriculum committee chair and the director may be counted here.

3must be an approved course; consult pre-approved electives list available from the school. Under special circumstances, approval for other courses from the undergraduate curriculum committee chair may be granted.

Note: In the typical schedule shown above, students will start their thesis work (ENSC 498 and 499) between semesters seven and eight. Theses can be done on or off campus, either integrated with an optional (or mandatory) work term or as independent work with appropriate supervision.
Other Requirements  
ENSC 498-3 Engineering Science Thesis Proposal (H)  
ENSC 499-R Engineering Science Undergraduate Thesis (H)  
Total 139 credit hours (G); 151 credit hours (H)  
*should be taken in the designated semester; consequences of deviating from this schedule are the responsibility of the student.  
*must be an approved course. A pre-approved list of complementary studies courses is available from the School of Engineering Science.  
*chosen from ENSC 424, 425, 426, 427, 428, 429, 450, 485, 486. With permission of the undergraduate curriculum committee chair, students may replace one of their engineering science electives by either a directed study or a special project laboratory course. Special Topics courses that have been approved by the undergraduate curriculum committee chair and the director may be counted here.  
*must be an approved course; consult pre-approved electives list available from the school. Under special circumstances, approval for other courses from the undergraduate curriculum committee chair may be granted.  
Note: In the typical schedule shown above, honors students will start thesis work (ENSC 498 and 499) between semesters seven and eight. This work can be done on or off campus, either integrated with the undergraduate curriculum committee chair and the director may be counted here.  
Enrollment is limited to students who propose a thesis topic that involves novel research in biomedical engineering. Students are expected to complete their thesis within one academic year.  
Recommended Second Semester  
Elec 4 elective 1 18 credit hours  
Semester Seven (Spring)  
ENSC 378-2 Medical Device Development and Standards 20 credit hours  
ENSC 378-2 Medical Device Development and Standards  
Other Requirements  
ENSC 498-3 Engineering Science Thesis Proposal  
ENSC 499-9 Engineering Science Undergraduate Thesis.  
Total 155 credits  
*should be taken in the designated semester; consequences of deviating from this schedule are the responsibility of the student.  
*one Complementary Studies course must be a course that deals with central issues, methodologies and thought processes of the humanities and social sciences (see list on ENSC website). The other must be one of GERO 300-3 or PSYC 430-3.  
*may be a 300-level or 400-level course. The defined concentrations below set some constraints on selection of electives.  
*must be a 400-level course. The defined concentrations below set some constraints on selection of electives.  
Concentrations  
Electives must match one of the two concentrations.  
Rehabilitation and Assistive Devices  
Concentration  
one Scie elective must be KIN 448-3; three ENSC electives must be ENSC 387, 472, and 429.  
Biomedical Signals and Instrumentation  
Concentration  
with Biomedical Imaging focus  
three ENSC electives must be ENSC 374, 429, and 474  
* or with Biomedical Electronics focus  
three ENSC electives must be ENSC 325, 425, and 429  
* or with Biophotonics focus  
the ENSC electives must be ENSC 325, 425, 376, and 476.  
Suggestions for additional electives for both concentrations are available at the ENSC website.  
Minor in Computer and Electronics Design  
Admission Requirements  
Minor program entrance is open to all SFU non-engineering science majors. Apply by letter to the Admissions Chair, School of Engineering Science, after completing a minimum of 15 credit hours, including CMPT 150 or ENSC 150, with a cumulative GPA of at least 3.5. Enrolment is limited.  
Program Requirements  
This program is comprised of courses from the electronics engineering option. Students must complete all of ENSC 150-3 Introduction to Computer Design  
ENSC 151-2 Digital and Computer Design Laboratory  
ENSC 220-3 Electric Circuits I  
ENSC 250-3 Introduction to Computer Architecture  
ENSC 305-1 Project Documentation and Group Dynamics  
ENSC 320-3 Electric Circuits II  
ENSC 340-3 Engineering Science Project  
ENSC 380-3 Linear Systems  
plus at least one of  
ENSC 225-4 Microelectronics I  
ENSC 351-4 Real time and Embedded Systems  
plus at least three, and no more than five (students cannot count the same course twice) of the following  
ENSC 225-4 Microelectronics I  
ENSC 325-4 Microelectronics II  
ENSC 327-4 Communication Systems  
ENSC 350-3 Digital Systems Design  
ENSC 351-4 Real Time and Embedded Systems  
ENSC 424-4 Multimedia Communications Engineering  
ENSC 425-4 Electronic System Design  
ENSC 427-4 Communication Networks  
ENSC 429-4 Discrete Time Systems  
ENSC 450-4 VLSI Systems Design  
ENSC 489-4 Computer Aided Design and Manufacturing  
ENSC 495-4 Introduction to Microelectronic Fabrication  
The engineering science graduation GPA in the above courses must be 2.4 or better. If it drops below 2.4, the student may be required to withdraw from the program.  
General Studies Program  
9861 Applied Science Building 604.291.4724 Tel,  
604.291.5802 Fax, http://fas.sfu.ca/programs/bgs  
Advisors  
Ms. M. Black MA (Royal Roads), 9861 Applied  
Science Building, 604.291.3254  
Ms. L. McGregor BComm (McM), 9861 Applied  
Science Building, 604.291.5332  
Applied Sciences One  
This is a challenging program of first year study for those who are interested in the applied sciences. It includes courses relevant to the study of communication, computing science, engineering science and kinesiology.  
Applied Sciences One consists of two semesters of course work based on the following models. Students may vary these models and make substitutions in consultation with the program advisor.  
Recommended First Semester  
Course Work  
CMNS 110-3 Introduction to Communication Studies  
CMPT 101-4 Introduction to Computer Programming  
ENSC 150-3 Introduction to Computer Design  
KIN 142-3 Introduction to Kinesiology  
MATH 151-3 Calculus I  
Recommended Second Semester  
Course Work  
one of  
CMNS 130-3 Explorations in Mass Communication  
REM 100-3 Global Change  
all of  
ENGL 199-3 University Writing  
MACM 101-3 Discrete Mathematics I  
MATH 152-3 Calculus II  
and one of  
BISC 101-4 General Biology  
CHEM 121-4 General Chemistry I and Laboratory I  
PHYS 120-3 Modern Physics and Mechanics  
Upon completion of Applied Science One, it is expected that most students will apply to one of the major programs in Faculty of Applied Sciences schools. Students may also wish to pursue a major-minor combination involving two schools. Alternatively, students may continue on with the general studies program leading to the Bachelor of General Studies (Applied Sciences). Course planning
for second and subsequent years should be carried out in consultation with the program advisor.

**General Studies Degree Program**

This is a nonspecialist bachelor's degree program that offers students a broad education with an applied orientation. This program may be satisfied either through the general applied sciences option or through the double minor option.

**General Applied Sciences Option**

Students must complete 30 credit hours of upper division Faculty of Science and Faculty of Applied Sciences courses subject to the following.

- no more than nine credit hours of these courses may be from the Faculty of Science
- no more than 12 credit hours of these courses may be taken from any one school in the Faculty of Applied Sciences
- Faculty of Applied Sciences residency requirements must be satisfied. See “Residency Requirements” on page 124.
- a 2.00 GPA is required on the courses used for the general applied sciences option.

For this requirement, MACM courses are counted as School of Computing Science courses.

**Double Minor Option**

Students may satisfy the double minor option by taking two minors (or extended minors), at least one of which must be in the Faculty of Applied Sciences. If the only minor from the Faculty of Applied Sciences is in the School of Communication, the second minor must be from the Faculty of Science or the Faculty of Applied Sciences.

**Overall Degree Requirements**

Students must complete 120 credit hours overall for the degree, including 45 upper division credit hours. A 2.00 graduation CGPA and UD GPA is required.

**Admission**

Faculty of Applied Sciences students may apply for admission to either the general applied sciences option or the double minor option at any time. Students in other faculties may apply for the double minor option upon acceptance into two qualifying minors by the schools or departments concerned.

In addition, limited spaces are available for students transferring to the general applied sciences option from other faculties. Admission is competitive, based on a GPA in upper division applied sciences courses. To be considered, students must have successfully completed at least nine credit hours of upper division applied sciences courses with a GPA of 2.25.

Enrolment in the upper division courses of a particular school may be limited to those Bachelor of General Studies students who also meet the admission standards of that school. Admission to the BGS program may not be used to bypass the enrolment limitations of any other applied sciences program.

**Geographic Information Science Program**

**Advisors**

Ms. M. Black MA (Royal Roads), 9861 Applied Science Building, 604.291.3254 Tel
Ms. L. McGregor BComm (McM), 9861 Applied Science Building, 604.291.5332 Tel
Ms. R. Multani, 7126 Robert C. Brown Hall, 604.291.4529 Tel

The School of Computing Science and the Department of Geography offer this major and honors program leading to a Bachelor of Science degree with an honors option.

**Admission**

Entry is possible via direct admission from high school, direct transfer from a recognized post secondary institution, or internal transfer from within SFU. Admission is competitive. A separate admission average for each entry route is established each semester depending on available spaces and subject to the approval of the Dean of Applied Sciences.

Admission averages and calculations for direct program admission (either from high school or post secondary) are the same as those used for admission to the computing science major program. SFU internal transfer students are assessed based on the lower division requirements GPA (see below). Only SFU courses are used to calculate the GPA. If courses have been duplicated (repeated), the grades from all course attempts are used equally to calculate the average. Application can be made any time after at least 18 SFU lower division credit hours (100 or 200 level courses) have been completed, and all 100 level requirements (completed at either SFU or a BC community college) have been satisfied.

Students must maintain a 2.5 CGPA to remain in the program.

**Co-operative Education**

Students are strongly encouraged to enroll in co-op education. Geographic Information Science students will be in great demand while they are still completing the program. The number of co-op posting requests exceeds the supply by a large margin. Co-op employers are actively seeking students with a broad range of GIS skills, especially those with a solid foundation in programming, database management, and statistics, in addition to substantive knowledge in geography and resource management.

**Major Program**

**Lower Division Requirements**

Students must complete all of
CMPT 120-3 Introduction to Computing Science and Programming I
CMPT 125-3 Introduction to Computing Science and Programming II
CMPT 225-3 Data Structures and Programming
GEOG 100-3 Human Geography I
GEOG 111-3 Physical Geography
GEOG 214-3 Climatology I
GEOG 215-3 Biogeography
GEOG 241-3 Social Geography
GEOG 250-3 Cartography I
GEOG 251-3 Quantitative Geography
GEOG 252-4 Spatial Analysis
GEOG 253-4 Remote Sensing
GEOG 353-4 Geographical Information Science I
and one of
CMPT 150-3 Introduction to Computer Design
CMPT 225-3 Data Structures and Programming
CMPT 226-3 Programming I
CMPT 354-3 Database Systems I
CMPT 361-3 Introduction to Computer Graphics
CMPT 371-3 Data Communications and Networking
CMPT 384-3 Symbolic Computing
GEOG 354-4 Geographical Information Science II
and two of
CMPT 406-3 Computational Geometry
CMPT 412-3 Computational Vision
CMPT 454-3 Database Systems II
CMPT 461-3 Advanced Computer Graphics
CMPT 470-3 Web-based Information Systems
and four additional upper division credit hours in physical or human geography. Students should consult with the program advisor in choosing these credit hours.

**Upper Division Requirements**

Students must complete all of
CMPT 354-3 Database Systems I
CMPT 361-3 Introduction to Computer Graphics
CMPT 300-3 Operating Systems I
CMPT 363-3 User Interface Design
CMPT 371-3 Data Communications and Networking
CMPT 384-3 Symbolic Computing
and three of
GEOG 351-4 Cartography and Visualization
GEOG 352-4 Spatial Analysis
GEOG 353-4 Remote Sensing
GEOG 355-4 Geographical Information Science II
and four additional upper division credit hours in physical or human geography. Students should consult with the program advisor in choosing these credit hours.

**Honors Program**

**Lower Division Requirements**

CMPT 120-3 Introduction to Computing Science and Programming I
CMPT 125-3 Introduction to Computing Science and Programming II
CMPT 150-3 Introduction to Computer Design
CMPT 225-3 Data Structures and Programming
CMPT 275-4 Software Engineering I
GEOG 100-3 Human Geography I
GEOG 111-3 Physical Geography
GEOG 214-3 Climatology I
GEOG 215-3 Biogeography
GEOG 241-3 Social Geography
GEOG 250-3 Cartography I
GEOG 251-3 Quantitative Geography
GEOG 252-4 Spatial Analysis
GEOG 253-4 Remote Sensing
GEOG 354-4 Geographical Information Science II
and one of
MACM 101-3 Discrete Mathematics I
MACM 201-3 Discrete Mathematics II
MATH 151-3 Calculus I
MATH 152-3 Calculus II
MATH 232-3 Linear Algebra
and one of
CMPT 120-3 Introduction to Computing Science and Programming I
CMPT 125-3 Introduction to Computing Science and Programming II
CMPT 225-3 Data Structures and Programming
GEOG 100-3 Human Geography I
GEOG 111-3 Physical Geography
GEOG 214-3 Climatology I
GEOG 215-3 Biogeography
GEOG 241-3 Social Geography
GEOG 250-3 Cartography I
GEOG 251-3 Quantitative Geography
GEOG 252-4 Spatial Analysis
and four additional upper division credit hours in physical or human geography. Students should consult with the program advisor in choosing these credit hours.

**Upper Division Requirements**

Students must complete all of
CMPT 354-3 Database Systems I
CMPT 361-3 Introduction to Computer Graphics
CMPT 300-3 Operating Systems I
CMPT 363-3 User Interface Design
CMPT 371-3 Data Communications and Networking
CMPT 384-3 Symbolic Computing
and three of
GEOG 351-4 Cartography and Visualization
GEOG 352-4 Spatial Analysis
GEOG 353-4 Remote Sensing
GEOG 355-4 Geographical Information Science II
and four additional upper division credit hours in physical or human geography. Students should consult with the program advisor in choosing these credit hours.

**Double Minor Option**

Students may satisfy the double minor option by taking two minors (or extended minors), at least one of which must be in the Faculty of Applied Sciences. If the only minor from the Faculty of Applied Sciences is in the School of Communication, the second minor must be from the Faculty of Science or the Faculty of Applied Sciences.

**Overall Degree Requirements**

Students must complete 120 credit hours overall for the degree, including 45 upper division credit hours. A 2.00 graduation CGPA and UD GPA is required.

**Admission**

Faculty of Applied Sciences students may apply for admission to either the general applied sciences option or the double minor option at any time. Students in other faculties may apply for the double minor option upon acceptance into two qualifying minors by the schools or departments concerned.

In addition, limited spaces are available for students transferring to the general applied sciences option from other faculties. Admission is competitive, based on a GPA in upper division applied sciences courses. To be considered, students must have successfully completed at least nine credit hours of upper division applied sciences courses with a GPA of 2.25.

Enrolment in the upper division courses of a particular school may be limited to those Bachelor of General Studies students who also meet the admission standards of that school. Admission to the BGS program may not be used to bypass the enrolment limitations of any other applied sciences program.
Technology in Art and Design Stream

This stream studies technological systems used by people in work, learning and play situations. Its emphasis is on system-building with particular emphasis on how people use systems, how to design and program user-centered systems and how to represent and reason about the objects and environments that people use. Its graduates will be able to make systems that people find useful and engaging.

Interaction Design

This stream examines the relationship between people and technology with the intent to enhance or improve our environment through a reflective design process that incorporates interactive technologies. The fundamental graduate outcomes are a combination of creative action and critical thought that shape the way people make and use highly interactive products, systems and environments.

Program Structure

The streams achieve their ends by a common curricular structure. Each has a set of core courses in both lower and upper division taken by all students in the stream aimed at producing specific graduate outcomes. There is significant sharing of course content among the streams, especially within the electives. Even within the sets of required courses, there is overlap reflecting the fact they are all part of a common program. The common academic threads shared by all four streams include the TechOne foundation year, four SIAT courses for the BA degree and an additional five common courses for the BSc degree. Students must complete:

- TechOne or equivalent 21 credits.
- SIAT lower division core.
- BA or BSc degree requirements, and
- one of the four stream requirements.

Each stream has 30 upper division credits specified that count towards the major. At least 120 credit hours are required including at least 45 upper division credit hours. Within each stream are required core courses, stream-related electives, program-wide electives and free electives to be taken from courses outside of the program. It should be noted at the outset that wherever a list of elective courses is presented, the actual offerings in any given year may be less than those shown.

Admission Requirements

Admission to the School of Interactive Arts and Technology is possible through four routes.

- Direct admission from BC high school 12 or equivalent high school preparation in accord with the requirements listed under the Admission and Readmission section (see “British Columbia and Yukon Applicants” on page 36).
- Admission to the school upon completion of TechOne, the foundation year program that comprises the standard first year program.
- Internal transfer from another SFU program upon completing requirements equivalent to those of TechOne.
- Direct transfer from another post-secondary institution substantially meeting the requirements of TechOne.

In the case of routes 2, 3 and 4, students apply to either the BA or BSc program upon completion of at least 24 credit hours of the core lower division BA or BSc requirements listed below for admission to the respective degree program.

Admission is competitive based on the student’s cumulative grade point average. Students who are
unsuccessful in their first admission application may improve their average by taking additional courses.

**Major Program**

**Degree Requirements**

Students entering a major in Interactive Arts and Technology will normally apply to either the BA or BSc program after completion of TechOne or its equivalent.

**BSc Degree Requirements**

The BSc lower division requirements, plus a combination of 30 upper division science credits.

Approved upper division science credits include the following: any approved upper division course in the Technology in Art & Design stream; any approved upper division course in the Interaction Design stream; any upper division course from Computing Science, Engineering Science, Kinesiology, Management and Systems Science, Mathematics.

**BA Degree Requirements**

The BA lower division requirements, plus a combination of 30 upper division arts credits.

Approved upper division arts credits include the following: any approved upper division course in the Performance and Media Arts stream; any approved upper division course in the New Media Environments stream; any upper division course from Communication, Cognitive Science, Contemporary Arts, Geography, Philosophy, Business.

**Lower Division Requirements**

The lower division requirements for all planned IAT major and honors programs consist of the 21 credits of TechOne core courses (including an approved mathematics course), 12 credits of SIAT core courses, the BA or BSc requirements below plus 15 credits of lower division requirements in one of the four streams.

**SIAT Lower Division Core Courses (12 credits)**

The current composition of the SIAT lower division core is:

- TECH 114-3 History and Theory of Technology and Culture
- IAT 200-3 Cognition for Design Science
- IAT 201-3 Usability in Interactive Environments
- IAT/CMP 265-3 Multimedia Programming for Art and Design

**BA Lower Division Core (45 credits minimum)**

In addition to the 21 credits of TechOne and 12 credits of SIAT lower division core, students must complete 12 credits from:

- PSYC 100-3 Introduction to Psychology
- IAT 204-3 Encoding Media Practice
- IAT 230-3 Design of Digital Environments
- IAT 231-3 Visualizing Interaction
- Lower division media electives (List 1)
- Lower division cultural theory electives (List 2) or an approved course from the School of Communication or the Faculty of Arts and Social Sciences

**List 1: Media Electives**

- IAT 241-3 Animation
- IAT 242-3 Moving Images
- IAT 243-3 Sound Interaction
- IAT 244-3 Digital Photography I: Post Photography

**List 2: Cultural Theory electives**

- IAT 203-3 Cultural Icons and Popular Arts
- IAT 206-3 Media Across Cultures
- IAT 209-3 Critical and Creative Thinking

**BSc Lower Division Core (45 credits minimum)**

In addition to the 21 credits of TechOne and 12 credits of SIAT lower division core, students must complete 12 credits from the IAT list of BSc courses currently comprising:

- CMPT 225-3 Data Structures and Programming
- CMPT/IAT 261-3 Spatial Computing
- IAT 232-3 Prototyping and Human factors
- KIN 142-3 Introduction to Kinesiology
- MACM 101-3 Discrete Mathematics I or MATH 151-3 Calculus I (whichever not taken in TechOne)
- MATH 152-3 Calculus II
- MATH 210-3 Calculus for Design Sciences
- MATH 232-3 Elementary Linear Algebra
- PHYS 120-3 Modern Physics and Mechanics, or
- Physics Studio course
- STAT 270-3 Introductions to Probability and Statistics or another approved course from the Faculty of Science or the Faculty of Applied Sciences.

**Stream Requirements**

**Performance and Media Arts**

Performance and Media Arts is based on the artistic interpretation and expression of human experience through interactive technological environments. This stream combines critical theory with artistic practice to produce artworks in the form of installation, performance and exhibition. Its graduates will create new forms of cultural and artistic expression in our technologically mediated society.

**Lower Division Requirements (48 credit hours minimum)**

For the major, students must complete a total of 15 stream-specific credits currently comprising the following courses:

- IAT 204-3 Encoding Media Practice
- at least two lower division media electives (List 1)
- at least one lower division cultural theory elective (List 2)

**Upper Division Requirements (30 credit hours)**

Students must complete all of:

- 15 credits of PMA upper division core courses, currently IAT 301, IAT 320, IAT 321, IAT 322, IAT 323 and at least 12 credits from the following including at least 6 credits of PMA studio courses:
- PMA studio courses: IAT 400, IAT 420, IAT 422.
- PMA elective courses: IAT 302, IAT 312, IAT 313, IAT 401, IAT 445, IAT 480, IAT 481, IAT 482.
- and SIAT upper division courses, if required, to bring the total to at least 30 credits.

**New Media Environments Stream**

The New Media Environments stream is concerned with the creation, analysis and understanding of new media. New media environments are both computational artifacts and cultural experiences. They are therefore highly emergent phenomena that are deeply rooted in historical, social, aesthetic, and economic processes. Graduates of this stream will be skilled in the critical analysis and in the making of new media forms such as electronic games, digital video, computer animation, and interactive multimedia.

**Lower Division Requirements (48 credit hours minimum)**

For the major, students must complete 15 stream-specific courses, currently comprising the following:

- IAT 204-3
- at least two lower division media electives (List 1)
- at least one lower division cultural theory electives (List 2)

**Upper Division Requirements (30 credit hours)**

Students must complete all of:

- 15 credits of NME upper division core courses, currently IAT 301, IAT 312, IAT 313, IAT 410 and IAT 445.
- and at least 12 credits from the following, including at least 9 credits of NME studio courses:

- NME studio courses: IAT 340, IAT 400, IAT 342 and IAT 443
- NME elective courses: IAT 302, IAT 320, IAT430, IAT 480, IAT 481, IAT 483
- and SIAT upper division courses, if required, to bring the total to at least 30 credits.

**Technology in Art and Design Stream**

Technology in Art and Design studies technological systems used by people in work, learning and play situations. Its emphasis is on system-building with particular emphasis on how people use systems, how to program user-centered systems and how to represent and reason about the objects and environments that people use. Its graduates will be able to make systems that people find useful and engaging. Students should note that there is a four course, lower level math requirement and a four course, lower level computing requirement that must be satisfied for graduation. Some of these courses are prerequisites to second year courses; others may be taken at any point in the program.

**Lower Division Requirements (48 credit hours minimum)**

For the major, students must complete 15 credits of stream-specific courses currently comprising the following:

- CMPT 225-3 Data Structures and Programming
- CMPT/IAT 261-3 Spatial Computing
- MACM 101-3 Discrete Mathematics I or MATH 151-3 Calculus I (whichever not taken in TechOne)
- MATH 210-3 Calculus for Design Sciences
- MATH 232-3 Elementary Linear Algebra

**Upper Division Requirements (30 credit hours)**

Students must complete all of:

- 15 credits of TAD upper division core courses, currently an approved project management course (for AY 2005-6, BUS 492 Special Topics), IAT 351, IAT 352, IAT 451, IAT 452
- and at least 12 credits from the following including at least 9 credits of TAD studio courses:
- TAD studio courses: IAT 353, IAT 354, IAT 453, and IAT 454
- TAD elective courses: IAT 301, IAT 302, IAT 312, IAT 401, IAT 410, IAT 430, IAT 480, IAT 481, IAT 484
- and SIAT upper division courses, if required, to bring the total to 30 credits.

**Interaction Design Stream**

Interaction Design examines the relationship between people and technology with the intent to enhance or improve our environment through a reflective design process that incorporates interactive technologies. The fundamental graduate outcomes are a combination of creative action and critical thought that shape the way people make and use highly interactive products, systems and environments.

**Lower Division Requirements (48 credit hours minimum)**

For the major, students must complete 15 stream-specific credits currently comprising the following:

- 9 credits of ID core lower division courses: IAT 230, IAT 231, and IAT 232.
- and six credits from the following courses: PSYC 100, KIN 142, CMPT 225, STAT 270, one lower division cultural theory elective from List 2.

**Upper Division Requirements (30 credit hours)**

Students must complete all of:

- at least 18 credits from ID upper division courses currently comprising: IAT 302, IAT 331, IAT 332, IAT 333, IAT 335, IAT 339, IAT 430, IAT 431.
- and at least 9 credits from the following, including at least 6 credits of IAD studio courses:
- IAD studio courses: IAT 400, IAT 411, IAT 412.
IAD elective courses: IAT 301, IAT 312, IAT 313, IAT 391, IAT 392, IAT 393, IAT 394, IAT 401, IAT 410, IAT 480, IAT 481, IAT 485.

and SIAT upper division courses, if required, to bring the total to at least 30 credits.

Honors in Interactive Arts and Technology
An honors degree in Interactive Arts and Technology is available in all four streams: Performance and Media Arts, Interaction Design, New Media Environments and Technology in Art and Design.

Lower Division Requirements
Identical to the major for all streams.

Upper Division Requirements
For all streams, students must complete the requirements for a major plus additional IAT electives for a total of at least 48 upper division credit hours. Honors students must complete the Honors Research Project sequence, IAT 490-6 and IAT 491-6. This is an individual supervised study and research project open only to honors students.

In addition to the above, students must take sufficient unspecified upper division courses to complete a minimum of 60 upper division credit hours, and unspecified courses at any level to total 132 credit hours overall. For graduation with honors, a 3.0 or better GPA is required on two measures: CGPA and UDGPA.

Minor in Interactive Arts and Technology
A minor in Interactive Arts and Technology is available. This is not specific to any stream.

Lower Division Requirements
Students must complete a total of 27 credits comprised of the course requirements for TechOne plus both of IAT 200-3 Cognition for Design Science IAT 201-3 Usability in Interactive Environments

Upper Division Requirements
Students must complete 15 upper division IAT credits. It should be recognized that some upper division courses have lower division prerequisites.

BSc (Interactive Arts, TechBC)
This degree program is available to students admitted to the TechOne Program in 2002. Course work is typically in module sequences. These are two or three 1-credit courses offered in sequence within a single semester. Abbreviated titles of module sequences are shown instead of individual course titles.

Students must complete the lower division requirements, upper division requirements and additional degree requirements.

Lower Division Requirements
These requirements consist of 36 credit hours of TechOne requirements plus 30 credit hours of TechTwo requirements as listed below.

TechOne Requirements
Students must complete all of TECH 104, 105, 106; Process Elements I TECH 107, 108, 109; Process Elements II TECH 110, 111, 112; History and Theory of Technology and Culture

Additional Requirements
In addition to the specific requirements listed above, students must complete additional course work to bring the total overall to 126 credit hours including at least 45 upper division credit hours. This additional work must include at least three credit hours of CMPT/ITEC course work, at least three credit hours of BUS/MTEC course work, and a further six credit hours of non-IART course work.

BSc (Information Technology, TechBC)
This degree program is available to students admitted to the TechOne Program in 2002. Course work is typically in module sequences. These are two or three 1-credit courses offered in sequence within a single semester. Abbreviated titles of module sequences are shown instead of individual course titles.

Students must complete the lower division requirements, upper division requirements and additional degree requirements.

Lower Division Requirements
These requirements consist of 36 credit hours of TechOne requirements plus 30 credit hours of TechTwo requirements as listed below.

TechOne Requirements
Students must complete all of TECH 104, 105, 106; Process Elements I TECH 107, 108, 109; Process Elements II TECH 110, 111, 112; History and Theory of Technology and Culture

TECH 118, 119, 120; Systems of Visual Representation
TECH 121, 122, 123; New Media Images
TECH 128, 129, 130; Business in a Global Economy II
TECH 131, 132, 133; Business in a Global Economy III
TECH 151, 152, 153; Introduction to Programming
TECH 154, 155, 156; Introduction to Computer Systems
TECH 157, 158, 159; Probability and Statistics

ITEC 206, 207, 208; Programming Multimedia
ITEC 210, 211, 212; Cultural Icons and Popular Arts
ITEC 213, 214, 215; Design for Digital Environments
ITEC 216, 217, 218; Drawing as Inquiry
ITEC 219, 220, 221; Animation
ITEC 222, 223, 224; Moving Images
ITEC 243, 244, 245; Sound Interaction
INTD 210, 211, 212; Project Management
INTD 213, 214, 215; Critical and Creative Thinking

ITEC 240, 241, 242; Algorithms and Data Structures
ITEC 240, 251, 252; Data Structures and Software Engineering
ITEC 291-3 Special Topics in Interactive Arts (2000 cohort only)

Common Core
Students must complete all of IART 301, 312, 313; Interaction and Reception IART 313, 314, 315; Physical Interaction Design IART 322, 323, 324; Interactive Arts Project IART 328, 329, 330; Kinesthetic Space IART 401, 402, 403; Electronic Culture IART 410, 411, 412; Meta-Systems

ITEC 204, 205, 206; Introduction to Computer Systems
ITEC 210, 211, 212; User Interface Design
ITEC 274, 275, 276; Applied Math for IT
ITEC 277; Stochastic Methods
Upper Division Requirements
The upper division ITEC requirements consist of a common core of 22 credit hours, plus a 23 credit concentration in either computer and communication systems or software engineering as listed below.

Common Core
Students must complete all of
ITEC 310, 311; Applied Math III
ITEC 313, 314; System Design Processes and Methods
ITEC 328, 329, 330; Operating Systems I
ITEC 331, 332, 333; Network Systems
ITEC 401, 402, 403; Testing and Verification
INTD 310, 311, 312; Advanced Project Management
INTD 401, 402, 403; Integration Project I
INTD 404, 405, 406; Integration Project II

Computer and Communication Systems Concentration
Students must complete all of
ITEC 316, 317; Embedded Systems
ITEC 319, 320, 321; Digital Communication Systems
ITEC 334, 335, 336; DSP Systems Design
ITEC 404, 405, 406; Distributed, Ubiquitous and Autonomous Computing
ITEC 416, 417, 418; Multimedia Systems
ITEC 419, 420, 421; High Performance Computer Architecture

Software Engineering Concentration
Students must complete all of
ITEC 322, 323; Computer Animation
ITEC 325, 326, 327; Object-Oriented Analysis and Design
ITEC 337, 338, 339; Database Systems
ITEC 407, 408, 409; Geometric Modeling
ITEC 413, 414, 415; Computer Security
ITEC 422, 423, 424; Computer Simulation
ITEC 425, 426, 427; Web-Centred Technologies
plus three additional credit hours of ITEC 400 level course work.

Additional Requirements
In addition to the specific requirements listed above, students must complete additional course work to bring the overall total to 126 credit hours. This additional work must include at least three credit hours of IART course work, at least three credit hours of BUS/MTEC course work, and at least three further credit hours of non-ITEC course work.

Co-operative Education Program
Arrangements for the work experiences are made through the school's co-op co-ordinators and the University's office of Co-operative Education. See "Co-operative Education" on page 240 for more information.

School of Kinesiology
K9625 Shrum Science Centre, 604.291.3573 Tel, 604.291.3040 Fax, http://fas.sfu.ca/kin

Director
(to be announced)

Professors Emeriti
E.W. Banister BSc (Manc), MPE (Br Col), PhD (Ill), FASCM
N.M.G. Bhaktan BSc (Kerala), MSc, PhD (Bda)
T.W. Calvert BSc(Eng) (Lond), MSEE (Wayne), PhD (Carnegie Tech), PEng
A.E. Chapman Dip Phys Ed (Lough), MA (Ohio), MPhil, PhD (Lond)
A.J. Davis Dip Phys Ed (Cape Town), MSc, PhD (Rutgers)
W.D. Ross BPE (Br Col), MA, MS, PhD (Ore), FASCM
H. Weinberg BSc, MSc, PhD (Washington)

Professors
P.N.S. Bawa BSc, MSc (Panjab), MSc, PhD (Alta)
J. Dickinson BA (Birm), PhD (Nott)
D.T. Finegood BSc(Hon) (Mich), MS (Northwestern), PhD (Calif)
D. Goodman BPE, MPE (Br Col), PhD (Iowa)
J.A. Hoffer BS (Minn), PhD (Johns H)
C. Krieger MD (Tor), MSc (Montr), PhD (London)
C.L. MacKenzie BSc, MSc, PhD (Wat)
R.G. Martenik BPE, MA (Alta), EdD (Calif)
T.E. Milner BSc, MSc, PhD (Alta)
J.B. Morrison BSc (Glas), PhD (Strath), ARCTSC
W.S. Parkhouse BPE (Alta), MPE (Br Col)
M.P. Rosin BSc (Sask), PhD (Tor)
G.F. Tibbits BEd (McG), MS, PhD (Calif), Canada

Research Chair
E.W. Banister BSc, MSc, PhD (Br Col)
S.N. Robinovich BSc (Br Col), MSc (MIT), PhD (Harvard/MIT)

Assistant Professors
A.P. Blaber BSc (Guelph), BEd (WOnt), MSc (Guelph), PhD (Wat)
M. Donelan BSc (McM), MA, PhD (Calif)
S.A. Lear BSc (S Fraser), PhD (Br Col)
A.V. Vieira BSc (Calg), PhD (Alta)
M.D. White BSc, MSc (S Fraser), PhD (Laval)

Adjunct Professors
J.M. Berry BSc (Wis), PhD (Br Col)
K.M. Hamilton BA (PEI), MSc, PhD (Yrk, Can)
L. Hove-Madsen BSc, MSc, PhD (Aarhus, Denmark)
A.J. Lomax MBChB (Manc), DOBst (Royal College of Obstetrics and Gynaecology), FRCS
P. Pretorius BSc, MSc (Pretoria, Transvaal), BSc (Amst)
D. Robinson BSc (Br Col), MSc, PhD (S Fraser)
I. Rossberg-Gemp ton BA (S Fraser), MA (Wlaur), PhD (S Fraser)
R.A. Strath MSc (Br Col), PhD (Ald), OD (New Eng, Optometry)
L. Zhang BDS (Western China), PhD (Tor)

Senior Lecturers
J. Anthony BSc, MSc (Madr), PhD (All India IMS)
R.C. Asmundson BSc, MSc (S Fraser)
S. Brown BSc, MSc (S Fraser)
A.J. Leyland BEd (Exe), MSc (S Fraser)
R. Ward BSc (Lough), MSc, PhD (S Fraser)

Lecturer
R. Dill BSc, MSc (S Fraser)

Advisors
Ms. D. Bemiston BSc (S Fraser), co-op education co-ordinator, K9620 Shrum Science Centre, 604.291.4541, kin_advisor@sfu.ca
Ms. P. Delwande BA, BPH (Ou), co-ordinator, academic programs and services, K9620 Shrum Science Centre, 604.291.4005, kin_advisor@sfu.ca

Mission
Our mission is to study human structure and function and their relation to health and movement. We seek to advance, apply and disseminate relevant knowledge and expertise.

The school builds on the basic sciences to link the study of movement, physiology and health with the broad scope of human endeavour. Our faculty comprises anatomists, biochemists, biologists, biomechanists, biophysicists, engineers, ergonomists, kinesiologists, physicians, psychologists and psychologists. We apply our knowledge to study structure and function throughout the life cycle in health and disease, in benign and extreme environments, at work, at home, at sports and at play. Our educational goals impart a sound knowledge base and to promote critical thinking, problem solving, research, technical and communication skills appropriate to the field, through our undergraduate, graduate and continuing studies programs.

To this end, we strive for excellence in teaching, research and service programs focused on the following aspects of the human condition.

• movement and its control
• regulation and adaptation of physiological systems
• growth, development and aging
and on the following applied disciplines:
• health promotion
• prevention of injury and disease
• functional evaluation and rehabilitation
• ergonomics/human factors
• environmental, exercise and work physiology

Transfer Credit and Residency Requirements
Transfer students are advised that residency requirements apply to kinesiology programs. See "Residency Requirements" on page 124.

Programs
The school offers programs leading to a BSc (Kinesiology), BSc honors (Kinesiology), minor in kinesiology, post baccalaureate diploma in kinesiology, certificate in applied human nutrition, and certificate in health and fitness studies. Co-op education helps kinesiology majors gain valuable work experience during their undergraduate studies. Areas of concentration offer cross-disciplinary undergraduate programs specializing in the following complementary areas.

• active health and rehabilitation kinesiology
• health and physical sciences
• human factors/ergonomics

Choosing an area of concentration is not necessary to receive a BSc (Kinesiology); a general kinesiology option is available. The general option and the three areas of concentration include a common core covering basic anatomy, physiology, biomechanics and prerequisite knowledge from the biological, chemical, physical and mathematical sciences fundamental to understanding human structure and function. The ‘core’ refers to those aspects that are required for the degree, regardless of concentration.

Teaching Certification
Kinesiology students with appropriate courses can apply to the British Columbia College of Teachers (BCCT) to have their degree accepted for professional certification. BCCT reviews each application individually. Contact the School of Kinesiology for more information.

Prerequisite Course Grade
Students wishing to register for kinesiology courses must have obtained a grade of C- or better in prerequisite courses.

Major Program
Admission Requirements
Entry to the bachelor of science (kinesiology) program is possible via

• direct admission from high school
• transfer from a recognized post-secondary institution
• internal transfer from within Simon Fraser University

Admission is competitive. A separate admission average for each of the three entry routes is established each semester, depending on spaces available and subject to the dean’s approval. Admission averages are calculated on five required courses from high school or five or more required post secondary courses. If one or more courses have been duplicated (repeated), the grades from all
course attempts will be used equally in calculating the kinesiology admission GPA.

Direct Admission – High School and Direct Transfer, Post Secondary Institutions
See “British Columbia and Yukon Applicants” on page 36.

Internal Transfer
Simon Fraser University students applying for School of Kinesiology admission must complete the following courses with a grade of C- or better:
BISC 101-4 General Biology
CHEM 121-4 General Chemistry and Laboratory I
KIN 142-3 Introduction to Kinesiology
one of
MATH 151-3 Calculus I
MATH 154-3 Calculus I for the Biological Sciences
one of
PHYS 101-3 General Physics I
PHYS 120-3 Mechanics and Modern Physics
PHYS 125-3 Mechanics and Special Relativity
PHYS 140-4 Studio Physics—Mechanics and Modern Physics

Applicants are selected based on an admission GPA calculated over these five required courses together with any of the following 9-10 courses taken.
CHEM 122-2 General Chemistry II
CHEM 281-4 Organic Chemistry I
KIN 201-3 Biomechanics
KIN 205-3 Introduction to Human Physiology
KIN 207-3 Information Processing in Human Motor Systems
MBB 221-3 Cellular Biology and Biochemistry
and one of
MATH 152-3 Calculus II
MATH 155-3 Calculus II for the Biological Sciences
and one of
PHYS 102-3 General Physics II
PHYS 121-3 Optics, Electricity and Magnetism
PHYS 126-3 Electricity, Magnetism and Light
PHYS 141-4 Studio Physics—Optics, Electricity and Magnetism
and (unless both PHYS 140 and 141 are taken) one of
PHYS 130-2 General Physics Laboratory A
PHYS 131-2 General Physics Laboratory B
and STAT 201-3 Statistics for the Life Sciences

Students may apply for admission as soon as the five required courses have been completed. Unsuccessful applicants may take any of the 10 additional courses to improve the admission GPA. A C- or better grade is required in each course used for the admission application. Students who do not meet the kinesiology admission GPA upon completion of all four additional courses will be advised about alternative options.

For students transferring some of core courses from another post secondary institution: only courses completed at SFU (and not previously taken elsewhere) are used in the kinesiology admission GPA. Normally, at least 15 credits from core courses are required as a basis for the GPA calculation. Exceptions must be approved by the school.

Application Procedure
Students should complete a program approval form available at the kinesiology general office and submit it to the kinesiology advisor by July 1 for fall semester approval, November 1 for spring semester approval, or March 1 for summer semester approval.

Program Requirements
Please read descriptions of required courses before enrolling in the major or honors program (see “Kinesiology KIN” on page 408). The following is a summary outline of the general degree requirements for a bachelor of science (kinesiology).

Kinesiology (lower division specified) – 12 credit hours
Faculty of Science (lower division specified) – 34 credit hours
Kinesiology (upper division specified) – 13 credit hours
Kinesiology (upper division unspecified) – 27 credit hours
Electives (lower division partly specified) – 6 credit hours
Electives (upper division unspecified) – 5 credit hours
Free electives (upper or lower division unspecified) – 23 credit hours
Total 120 credit hours

Areas of Concentration
The school offers three areas of concentration for those wishing to take a more specialized approach to their studies in kinesiology. They are as follows:

- active health and rehabilitation kinesiology
- ergonomics/human factors
- health and physiological sciences

Students majoring in kinesiology may choose the general program or one of the three concentrations. Each concentration has specific course requirements that go beyond the general requirements for a major.

Lower Division Requirements
The lower division requirements of the kinesiology major program are structured in terms of a common set of core courses for all majors, an additional set of required courses for those students choosing to specialize in one of the concentrations and breadth requirements that apply to all majors.

Lower Division Core
The following courses are specified for all majors.

Biochemistry
MBB 221-3 Cellular Biology and Biochemistry
3 credit hours

Biological Sciences
BISC 101-4 General Biology
4 credit hours

Chemistry
CHEM 121-4 General Chemistry and Laboratory I
CHEM 122-2 General Chemistry II
CHEM 281-4 Organic Chemistry I
10 credit hours

Kinesiology
KIN 142-3 Introduction to Kinesiology
KIN 201-3 Biomechanics
KIN 205-3 Introduction to Human Physiology
KIN 207-3 Information Processing in Human Motor Systems
12 credit hours

Mathematics
one of
MATH 151-3 Calculus I
MATH 154-3 Calculus I for the Biological Sciences
plus one of
MATH 152-3 Calculus II
MATH 155-3 Calculus II for the Biological Sciences
6 credit hours

Physics
one of
PHYS 101-3 General Physics I
PHYS 120-3 Modern Physics and Mechanics
PHYS 125-3 Mechanics and Special Relativity
PHYS 140-4 Studio Physics—Mechanics and Modern Physics
plus one of
PHYS 102-3 General Physics II
PHYS 121-3 Optics, Electricity and Magnetism
PHYS 126-3 Electricity, Magnetism and Light
PHYS 141-4 Studio Physics—Optics, Electricity and Magnetism
8 credit hours

Statistics
STAT 201-3 Statistics for the Life Sciences
3 credit hours

Total 46 credit hours

Concentration Requirements
Students choosing to specialize in one of the kinesiology concentrations must complete additional lower division courses as specified below.

Active Health and Rehabilitation Concentration

Health And Physiological Sciences
Concentration

CHEM 126-2 General Chemistry Laboratory II
CHEM 282-2 Organic Chemistry II
CHEM 286-2 Organic Chemistry Laboratory II
MBB 222-3 Molecular Biology and Biochemistry
9 credit hours

Breadth Requirements
For students admitted to SFU prior to September 2006, a minimum of six credit hours must be selected from the Faculty of Arts and Social Sciences.

For students admitted September 2006 or later, a minimum of six credits each of designated humanities breadth (B-Hum) and social sciences breadth (B-Soc) must be completed. At least three credits of lower division coursework should also be writing-intensive (W). The quantitative (Q), science breadth (B-Sci) and undesignated breadth (UB) requirements are satisfied through completion of the kinesiology lower division core and hence do not require additional work.

For more information, go to: www.sfu.ca/ugcr.

Upper Division Requirements
Students majoring in kinesiology must complete the general program or one of the three concentrations. The upper division requirements of each of these options is structured in terms of an upper division core common to all options plus additional upper division requirements specific to the option.

Upper Division Core
The following courses are required of all majors and each must be completed with a grade of C- or higher.
KIN 301-3 Biomechanics Laboratory
KIN 301-4 Functional Anatomy
and one of
KIN 306-3 Human Physiology I
KIN 306-4 Functional Anatomy
13 credit hours

“KIN 301-3 is required for students specializing in the ergonomics and human factors concentration.

General Program
Students must take an additional 27 hours of upper division credit in kinesiology, excluding courses reserved for the minor program (KIN 325-3 and 342-3) or the honors program (KIN 497-3 and 498-12). MBB 391-3 may be used to satisfy 3 credits of this requirement.

Total 40 credit hours
For the degree, students must also complete an additional five credit hours of upper division work chosen from any discipline within the University. Total 45 credit hours

Students admitted September 2006 or subsequently must also complete WQB requirements with 3 credits of writing-intensive credit at the upper division. This may be included within the 45 credit hour total for the degree. For more information, go to: www.sfu.ca/ugcr.

Active Health and Rehabilitation Concentration
Students choosing this concentration must complete KIN 303-3 Kinanthropometry
KIN 304-3 Measurement and Inquiry in Kinesiology
KIN 310-3 Exercise/Work Physiology
KIN 340-3 Active Health: Behavior and Promotion
KIN 343-3 Active Health: Assessment and Programming
and four of
KIN 311-3 Applied Human Nutrition
KIN 312-3 Nutrition for Fitness and Sport
KIN 375-3 Human Growth and Development
KIN 412-3 Molecular and Cellular Cardiology
KIN 426-3 Neuromuscular Anatomy
KIN 431-3 Environmental Carcinogenesis
KIN 444-3 Cardiac Rehabilitation
KIN 445-3 Advanced Cardiac Rehabilitation
KIN 446-3 Neurobiology of Disease
KIN 448-3 Rehabilitation of Movement Control
KIN 461-3 Physiological Aspects of Aging
KIN 467-3 Human Motor Control
KIN 481-3 Activity-Generated Musculo-Skeletal Disorders
KIN 496-3 Directed Study I*
KIN 498-3 Directed Study II* and one additional upper division kinesiology course, excluding courses reserved for the minor program (KIN 325-3 and 342-3) or the honors program (KIN 497-3 and 499-12).

*Can be counted towards area of concentration if relevant to active health or rehabilitation kinesiology. Please see the head of the area of concentration for permission to count any of these courses towards the area of concentration requirement.
30 credit hours Total 43 credit hours

For the degree, students must also complete an additional two credit hours of upper division work chosen from any discipline within the University. Total 45 credit hours

Students admitted September 2006 or subsequently must also complete WQB requirements with 3 credits of writing-intensive credit at the upper division. This may be included within the 45 credit hour total for the degree. For more information, go to: www.sfu.ca/ugcr.

Ergonomics and Human Factors Concentration
Students choosing this concentration must complete KIN 303-3 Kinanthropometry
KIN 304-3 Measurement and Inquiry in Kinesiology
KIN 310-3 Exercise/Work Physiology
KIN 380-3 Occupational Biomechanics
KIN 381-3 Psychology of Work
KIN 382-3 Physical Hazards in the Workplace
KIN 383-3 Human-Machine and Human-Computer Interaction
KIN 481-3 Activity-Generated Musculo-Skeletal Disorders
KIN 486-3 Human Factors in Industrial Design
KIN 488-3 Ergonomics Laboratory
and three of
KIN 340-3 Active Health: Behavior and Promotion
KIN 343-3 Active Health: Assessment and Programming
KIN 367-3 Psychology of Motor Skill Acquisition
KIN 402-3 Mechanical Properties of Tissues
KIN 407-3 Human Physiology Laboratory
KIN 415-3 Neural Control of Movement
KIN 416-3 Control of Limb Mechanics
KIN 442-3 Biomedical Systems
KIN 461-3 Physiological Aspects of Aging
KIN 484-3 Altitude and Aerospace Physiology
KIN 485-3 Human Factors in the Underwater Environment
CMNS 354-3 Communications and Social Issues in Design
KIN 420-3 Selected Topics I* KIN 421-3 Selected Topics II* KIN 422-3 Selected Topics III* KIN 423-3 Selected Topics IV* KIN 496-3 Directed Studies I* KIN 498-3 Directed Studies II* “Can be counted towards area of concentration if relevant to ergonomics or human factors. Please see the head of the area of concentration for permission to count any of these courses towards the area of concentration requirement.
39 credit hours Total 52 credit hours

For the degree, students admitted September 2006 or subsequently must also complete WQB requirements with 3 credits of writing-intensive credit at the upper division. This may be included within the 52 credit hour total. For more information, go to: www.sfu.ca/ugcr.

Health And Physiological Sciences Concentration
Students choosing this concentration must complete MBB 321-3 Intermediary Metabolism and one of BISC 303-3 Microbiology BISC 405-3 Cell Physiology BISC 431-3 Molecular Biotechnology MBB 308-3 Molecular Biology and Biochemistry Laboratory I MBB 309-3 Molecular Biology and Biochemistry Laboratory II MBB 322-3 Molecular Physiology and nine of KIN 304-3 Measurement and Inquiry in Kinesiology KIN 310-3 Exercise/Work Physiology KIN 336-3 Microscopic Anatomy KIN 340-3 Active Health: Behavior and Promotion KIN 402-3 Mechanical Properties of Tissues KIN 412-3 Molecular and Cellular Cardiology KIN 415-3 Neural Control of Movement KIN 416-3 Control of Limb Mechanics KIN 420-3 Selected Topics I* KIN 421-3 Selected Topics II* KIN 422-3 Selected Topics III* KIN 423-3 Selected Topics IV* KIN 426-3 Neuromuscular Anatomy KIN 430-3 Human Energy Metabolism KIN 431-3 Environmental Carcinogenesis KIN 442-3 Biomedical Systems KIN 446-3 Neurobiology of Disease KIN 448-3 Rehabilitation of Movement Control KIN 484-3 Altitude and Aerospace Physiology KIN 496-3 Directed Study I* KIN 498-3 Directed Study II* “Only selected topics courses in physiology will count.
33 credit hours Total 46 credit hours

For the degree, students admitted September 2006 or subsequently must also complete WQB requirements with 3 credits of writing-intensive credit at the upper division. This may be included within the 46 credit hour total. For more information, go to: www.sfu.ca/ugcr.

Free Electives
A further 23 credit hours of free electives may be taken from any discipline within the University at either the lower or upper division level.
23 credit hours Total 120 credit hours

Requirements to Transfer to Professional Schools
Students are eligible to receive a BSc (Kinesiology) degree after completion of the second year of professional study. Students must have completed at least 90 credit hours of Simon Fraser credit comprising the following.

• all lower division requirements
• 27 upper division credit hours in kinesiology (including KIN 305, 306, 326, and either 301 or 407)
• acceptance into an accredited professional program in dentistry, medicine, chiropractic, or veterinary medicine

Courses taken in the professional program must not duplicate courses already taken at SFU and must be acceptable for transfer credit to the University. Candidates apply for transfer credit and for receipt of the degree through Student Services.

Suggested Course Pathways
Suggested course selections for majors and any of the three areas of concentration are available from the kinesiology general office.

Typical First Year Course Schedule
Semester I
KIN 142-3 Introduction to Kinesiology
BISC 101-4 General Biology
CHEM 121-4 General Chemistry and Laboratory I
MATH 154-3 Calculus I for the Biological Sciences

Semester 2
CHEM 122-2 General Chemistry II
CHEM 281-4 Organic Chemistry I
MATH 155-3 Calculus II for the Biological Sciences
PHYS 101-3 General Physics I elective (KIN 143 recommended)

Honors Program
The honors program is designed for approved kinesiology major students who wish to pursue an advanced degree in kinesiology.

Application Requirements
Honors program application requires the following.

• completion of a minimum of 60 credit hours
• a minimum CGPA of 3.00
• submission of a completed program approval form, along with the student’s most recent unofficial record, to the undergraduate advisor.

Graduation Requirements
To graduate with honors, the student must successfully complete

• a minimum of 132 credit hours, with a minimum of 60 upper division credits of which at least 54 must be in kinesiology
• completion of all kinesiology major program requirements
• KIN 497-3 and KIN 499-12
• a minimum CGPA of 3.00 on all relevant measures (cumulative grade point average, upper division grade point average, kinesiology grade point average, kinesiology upper division grade point average)
Post Baccalaureate Diploma in Kinesiology

This program is normally available for students who have completed a degree other than kinesiology. For further information about the program’s general regulations, see "Post Baccalaureate Diploma Program" on page 30.

Requirements
Successful completion of an approved program comprised of 30 credit hours of upper division or graduate level courses, including the following courses is required.

KIN 304-3 Inquiry and Measurement in Kinesiology
KIN 305-3 Human Physiology I
KIN 306-3 Human Physiology II
KIN 326-4 Functional Anatomy

and one of

KIN 301-3 Biomechanics Laboratory
KIN 407-3 Human Physiology Laboratory

A minimum 2.5 grade point average is required for courses that are applied toward the diploma. Courses must be selected from an approved listing in consultation with a program advisor. Students interested in this program normally hold a BSc or equivalent. Students are responsible for satisfying the necessary prerequisites.

Certificate in Applied Human Nutrition

This certificate is intended for professionals who are not dietitians nor nutritionists, but are concerned with health and wellness promotion such as nurses, kinesiologists, professional coaches and personal trainers, teachers, trained food service supervisors, dietary technicians, pharmacists and clinical psychologists. The purpose is to provide these professionals with an enhanced understanding of the relationships among food, body composition, health, and human performance.

Please note that this certificate does not qualify the individual as a registered dietitian.

Admission is governed by the University’s admissions regulations. See “British Columbia and Yukon Applicants” on page 36. After being admitted to SFU, submission of a completed program approval form to the kinesiology undergraduate advisor is required for formal acceptance in the program.

Requirements
There is a maximum number of allowable transferable credits that count towards the certificate from any other institution, including the Open Learning Agency. See “Residency Requirements” on page 124.

Students must complete all of

KIN 105-3 Fundamentals of Human Structure and Function
KIN 142-3 Introduction to Kinesiology
KIN 143-3 Exercise Management
KIN 205-3 Introduction to Human Physiology
KIN 206-3 Introduction to Human Physiology
KIN 207-3 Information Processing in Human Motor Systems
KIN 241-3 Sports Injuries — Prevention and Rehabilitation
KIN 301-3 Biomechanics Laboratory
KIN 304-3 Inquiry and Measurement in Kinesiology
KIN 305-3 Human Physiology I
KIN 306-3 Human Physiology II
KIN 326-4 Functional Anatomy

and one of

KIN 301-3 Biomechanics Laboratory
KIN 407-3 Human Physiology Laboratory

A minimum 2.5 grade point average is required for courses that are applied toward the diploma. Courses must be selected from an approved listing in consultation with a program advisor. Students interested in this program normally hold a BSc or equivalent. Students are responsible for satisfying the necessary prerequisites.
TechOne Program

2400 Central City, Surrey, BC V3T 2W1, 604.268.7500 Tel, 604.268.7488 Fax, www.surrey.sfu.ca; www.sfu.ca/techone

Program Co-ordinator
E.J. Fee BA, MA, PhD (Br Col)

Program Assistant
Sandy Goettler BA
604.268-7412 Tel, 604.268.7478 Fax

TechOne is an innovative and challenging first year cohort program offered by the Faculty of Applied Sciences at Simon Fraser University, Surrey. TechOne offers a broad foundation centred around the interplay of creative arts and information technology in an entrepreneurial world. TechOne specifically prepares students for second year studies in business, computing science, and interactive arts and technology; however, students interested in any program at Simon Fraser University may choose TechOne as their first year of studies.

TechOne is run as a cohort program which means all students take their courses in smaller groups together with a set of other first year students. The program is taught in a blended learning format, where time on campus is spent in face-to-face classes and where online activities support traditional learning methods. TechOne consists of 30 credit hours of required and elective courses taken over two semesters. Students entering the TechOne Program must commit to full time study. Access to all TechOne core courses is guaranteed.

First Semester Core
The first semester of TechOne consists of nine credit hours of core course work plus six credit hours to satisfy the TechOne mathematics and elective requirements.
CMPT 120-3 Introduction to Computing Science and Programming I
IAT 100-3 Systems of Media Representation
TECH 100-3 Fundamentals of Teamwork and Communication I

Second Semester Core
The second semester of TechOne consists of the following nine credit hours of core courses plus six credit hours of course work to satisfy the TechOne mathematics and elective requirements.
CMPT 125-3 Introduction to Computing Science and Programming II
IAT 101-3 New Media Images
TECH 101-3 Fundamentals of Teamwork and Communication II

TechOne Mathematics Requirements
Students must complete at least three credit hours of MATH or MACM courses chosen from an annually approved list.

TechOne Elective Requirements
In addition to core and mathematics requirements, students choose electives that will help them complete the lower division requirements of their program major. If students have not yet chosen a program major a set of qualifying electives will be recommended.

After TechOne
Upon completion of TechOne, students may apply for admission to programs in business, computing science, interactive arts and technology, or other applied sciences disciplines. These programs may be subject to enrolment limitations, with competitive entry standards based on academic performance. Students who are unable to gain admission to these programs should consult the program advisor with respect to other options, such as the General Studies Program within the Faculty of Applied Sciences.
Faculty of Arts and Social Sciences

Academic Advice
Each Faculty of Arts and Social Sciences department provides an advisory service for assisting students to choose courses to satisfy degree requirements. Students who have made a formal program declaration should avail themselves of these services. Those who have not, but have completed 60 credit hours, will be advised by the faculty advisor in the Office of the Dean. Where specified, students should also consult the Office of the Dean of Arts and Social Sciences regarding regulations.

Students in all programs leading to Faculty of Arts and Social Sciences bachelor’s degrees must consult an advisor:
• prior to first registration at the University, and
• during that semester when they are taking their 45th credit hour, and
• during that semester when they are taking their 90th credit hour
Students in other programs such as certificate and post baccalaureate diploma programs are governed by the requirements of the specific programs.

Important Note
Students may count any SFU course for which credit is received toward the bachelor of arts degree with the exceptions of EDUC 401, 402, 405 and 406; ATHL 201, 202, 203 and 204.

The first five course duplications will count toward a BA. A maximum of five will count toward all programs taken in the Faculty of Arts and Social Sciences at SFU.

A maximum of nine credit hours taken through the Tri-Education Summer Institute may count toward a Faculty of Arts and Social Sciences degree or post baccalaureate program.

Co-operative Education Program in Liberal Arts

6046 Academic Quadrangle, 604.291.3041/5751/3776/5839 Tel

Co-ordinators
P. Johnston BA (S Fraser)
C. Rose BA (S Fraser)
E. Lewis BA (S Fraser)

This program is available for students who wish to acquire practical experience in conjunction with their academic programs. The student normally spends alternate semesters on campus and in paid, study-related jobs.

Refer also to Archaeology, Criminology, Economics, English, First Nations History, Humanities, Latin American Studies, Linguistics, Political Science, Psychology, Sociology/Anthropology, and Women's Studies as well as the Co-operative Education sections of this Calendar.

Students who are completing programs in departments that do not list co-operative education practicum courses can register in LBRL 101, 201, 301, 401 and 402.

Major Program
The following are recommended prior to entry in the co-op education program: one course from either set 2 or set 8 as listed under the Certificate in Liberal Arts (page 146), and at least 12 hours of required lower division courses in the major program.

Students Without Majors (BGS/BEd)
To be admitted, students must have completed a minimum of 30 credit hours with a minimum CGPA of 2.75. Prior to admission, all students must complete either ENGL 199-3 Introduction to University Writing or any two 100 division ENGL courses.

A quantitative research course in your area of interest is strongly recommended. Computer literacy is a requirement. For further information, contact one of the Faculty of Arts and Social Sciences co-operative education co-ordinators (see “Co-operative Education” on page 240 for a list of Faculty of Arts and Social Sciences co-op advisors).

Students are encouraged to complete a Certificate in Liberal Arts in conjunction with the co-operative education program.

Requirements
To be admitted, students must have completed a minimum of 30 credit hours with a minimum CGPA of 2.75. Prior to admission, all students must complete ENGL 199-3 University Writing (or any two 100 division English courses)

PHIL 001-3 Critical Thinking
A quantitative research course in your area of interest is strongly recommended. Computer literacy is a requirement. See the Faculty of Arts and Social Sciences co-op co-ordinators for further information.

Transfer Students
Transfer students should contact the co-ordinators in the first week of their first SFU semester. College transfer students who participated in co-op programs elsewhere may be credited with the semesters already taken. Students contemplating transfer to the SFU Faculty of Arts and Social Sciences co-op program should contact an admissions advisor in Student Services early.

Bachelor of Arts Degree
Students can meet the bachelor of arts requirements in one of five ways: through a major program; or through a joint major program; or through two extended minors; or through an honors program; or through a joint honors program. In addition to the degree requirements set out below, students may also fulfill the requirements for an extended minor or a minor as noted under the Options headings.

Major Program
To concentrate in a subject area, students may take a major consisting of at least 30 upper division credit hours in that subject area. A major provides a strong subject background and is preparation for a range of occupations, or for further study following graduation. The major program is the most common option chosen by students pursuing a bachelor of arts degree.

At least 120 credit hours are required including
• at least 65 credit hours in arts subjects
• at least 45 upper division credit hours, including at least 30 upper division credit hours in an arts major program.

No more than 15 upper division hours transferred from another institution may be used toward the requirements for a major.
• lower division requirements for at least one arts major
• satisfaction of the Faculty of Arts and Social Sciences breadth requirements (see below)
Note: A department may designate up to eight credit hours of program-related upper division courses offered by other departments as being acceptable in fulfilling part of the required hours in a major program.

Joint Major Program
A joint major is a combination of two subject areas. Students must complete at least 20 upper division credit hours in each of the two joint major subject areas. Students are advised to check individual department listings for possible additional requirements.

A joint major provides preparation for a range of occupations, or for further study following graduation. At least 120 credit hours are required which include:

- at least 65 credit hours in Faculty of Arts and Social Sciences subjects
- at least 45 credit hours in upper division courses which must include at least 20 upper division credit hours in each of the two joint major subjects. No more than 15 upper division credit hours transferred from another institution can be used toward this requirement.
- lower division prerequisites for both joint major programs
- satisfaction of the Faculty of Arts and Social Sciences breadth requirements (see below)

Extended Minor Program
Students wishing to prepare themselves in two subject areas, but not desiring to undertake a major or a joint major program, may complete an extended minor program consisting of two extended minors in the bachelor of arts degree.

An extended minor consists of the lower division requirements for a major, plus the upper division requirements for a minor. At least seven upper division credit hours counted toward this requirement must be taken at Simon Fraser University. At least 120 credit hours are required which include the following:

- at least 65 credit hours in Arts subjects
- at least 45 upper division credit hours, including 30 in two extended minor programs (at least 15 upper division credit hours in each of two extended minor programs). No more than 8 upper division hours transferred from another institution may count toward an extended minor.
- lower division requirements for at least two extended minor programs. The requirements for an extended minor program are the same as lower division requirements for a major program.
- satisfaction of the Faculty of Arts and Social Sciences breadth requirements (see below).

Note: There are programs in the School for the Contemporary Arts which have individually defined extended minors but which do not have majors. Students declaring this degree option must get approval from the advisors in their two extended minor departments as well as the approval of the degree advisor: Ms. M. Caulfield, 6171 Academic Quadrangle, 604.291.5921.

Minor Program
All Faculty of Arts and Social Sciences minor programs require at least 15 upper division credit hours within a single discipline unless otherwise specified in the Calendar. At least seven upper division credit hours counted towards this requirement must be taken at SFU.

Honors Program
At least 132 credit hours which include the following:

- at least 65 credit hours in Arts subjects
- at least 60 credit hours in upper division courses which must include at least 50 credit hours in upper division courses in an Arts honors program. No more than 15 upper division credit hours transferred from another institution can be used toward this requirement.
- lower division prerequisites for at least one Arts honors program
- satisfaction of the Faculty of Arts and Social Sciences breadth requirements (see below)

Note: A department may designate up to 12 credit hours of program-related upper division courses offered by other departments as being acceptable in fulfilling part of the required upper division credit hours in the honors program.

Joint Honors Program
At least 132 credit hours which include the following:

- at least 65 credit hours in Arts subjects
- at least 60 upper division credit hours which must include at least 28 in upper division courses in each of the two honors subjects. No more than 15 upper division credit hours transferred from another institution can be used.
- lower division prerequisites for both honors programs
- satisfaction of the Faculty of Arts and Social Sciences breadth requirements (see below)
- satisfactory completion of an honors essay jointly supervised by and acceptable to both honors departments

Students must maintain a 3.0 GPA in upper division courses in each subject of the joint honors program.

Breadth Requirements
In addition to completing courses required for any Faculty of Arts and Social Sciences degree, students must complete breadth requirements that provide knowledge and modes of thought outside a specialized discipline. The breadth requirements follow:

- a minimum of 30 credit hours outside the Arts honors, major or extended minor department (for this requirement, read 'school' as department)
- no fewer than five departments (other than the Arts honors, major or extended minor department) from the list below
- no more than nine credit hours from any one department may count toward the total of 30 required credit hours

For the purpose of this last requirement, the following academic units will count as separate 'departments':

Archaeology (ARCH)
Asia-Canada (ASC)
Biological Sciences (BISC)
Business Administration (BUS)
Canadian Studies (CNS)
Contemporary Arts (FPA)
Chemistry (CHEM)
Communication (CMNS)
Community Economic Development (CED)
Computing Science (CMPT)
Criminology (CRIM)
Earth Sciences (EASC)
Economics (ECON and BUEC)
Education (EDUC, except EDUC 401, 402, 405, and 406)
Engineering Science (ENS)
English (ENGL)
Environmental Studies: Environmental Science (EVSC), Resource and Environmental Management (REM)
First Nations (FNST)
French (FREN)

Geography (GEOG)
Gerontology (GERO)
History (HIST)
Humanities (HUM)
Kinesiology (KIN)
Languages: Chinese (CHIN), German (GERM), Italian (ITAL), Japanese (JAPN), Language (LANG), Spanish (SPAN)
Latin American Studies (LAS)
Linguistics (LING)
Mathematics (MATH)
Molecular Biology and Biochemistry (MBB)
Philosophy (PHIL)
Physics (PHYS)
Political Science (POL)
Psychology (PSYC)
Science (SCI)
Sociology and Anthropology (SA)
Statistics (STAT)
Women's Studies (WS)

Course enrolment in some of these may be limited to those with approved programs in these subjects. Courses that are not clearly within the above 'departments,' or courses transferred from other institutions in subjects without direct SFU equivalence may count toward these requirements on an individual basis and upon application to the Dean of Arts and Social Sciences Office (AQ 6168).

In completing the breadth requirements, students are encouraged to earn a Certificate in Liberal Arts, a program that is tailored for breadth of learning. Whether or not students complete the certificate, they may take the faculty breadth requirements to explore study in advance of choosing a major discipline.

Departments will advise about subject areas and specific courses to prepare for a major. A substantial proportion of these requirements may apply to many cross-disciplinary major, extended minor or minor programs within the faculty. To effectively plan ways to fulfill breadth requirements, students should seek advice from Student Academic Resources and in any departments in which they plan to major.

Program Declaration
Prior to or upon registering for the semester in which the 61st credit is taken, students must formally declare and be accepted into a major program or two extended minors and may, subject to the regulations below, apply for an honors program. The formal declaration establishes the exact major, or extended minor requirements for graduation as they appear in the Calendar in effect at the time of the declaration. Students are urged to keep a copy of this Calendar, known as the Graduating Calendar, for reference.

Degree programs may be changed any time prior to graduation. A new formal declaration must be approved by the new program department and the Dean of Arts and Social Sciences Office if a faculty change is involved. The Calendar then in effect becomes the new Graduating Calendar, and the requirements it specifies for the program must be fulfilled. 

Honors Program
Program acceptance is contingent upon satisfying the entrance requirements of the department concerned. Applicants normally have a 3.0 GPA in subject(s) of the honors field. When admission is granted, the student then registers as an honors student. To continue, this 3.0 GPA must be maintained. Failure to do so will place the student in the corresponding general degree program. Students will still be subject to the regulations of the original graduating Calendar. If a student is subsequently reinstated into the honors program, the graduating Calendar is that which was in effect at the time of the original program acceptance.
Graduation GPA Requirements
Please see “Grade Point Averages Needed for Graduation” on page 50 for current GPA requirements for graduation.

Individual departments/schools may have additional GPA requirements for graduation. Please check individual department/school Calendar listings for further information.

Please note that the minimum GPA requirements for graduation differed during the following time periods: September 1965 to August 1991; September 1991 to August 2003. Please see the appropriate Calendar(s) for information about GPA requirements during these time periods.

Calendar in effect at the time of entry to Simon Fraser University and the Calendar that was in effect at the time of approval to credential and/or program.

Bachelor of General Studies Degree
6170 Academic Quadrangle, 604.291.5426 Tel, 604.291.3033 Fax
Advisors
Ms. R. Lepp, 604.291.3909
Ms. M. Caulfield, BA, MALS (S Fraser), 604.291.5921

This non-specialist degree program, administered within the Faculty of Arts and Social Sciences, is designed for students whose educational goals are not met by other, more structured, undergraduate degree programs. Students may complete one or more minors or extended minors (but no major), in any academic area(s) as part of the BGS degree. Students considering this program are strongly urged to consult the advisor before declaring the BGS as the goal.

Requirements
Students must complete 120 credit hours, including at least 45 upper division credit hours. The graduation minimum is a graduation GPA of 2.0 and a cumulative GPA of 2.0 calculated on all upper division courses taken, except duplicate courses.

University regulations governing the duplication of courses (see “Limits on Duplications of Courses” on page 46) are rigorously applied in the Faculty of Arts and Social Sciences.

With the exception of EDUC 401, 402, 405 and 406, courses taken from any faculty may be used to satisfy the degree requirements, but admission to courses is subject to the prerequisite requirements of the various departments.

Graduation GPA Requirements
Please see “Grade Point Averages Needed for Graduation” on page 50 for current GPA requirements for graduation.

Individual departments/schools may have additional GPA requirements for graduation. Please check individual department/school Calendar listings for further information.

Please note that the minimum GPA requirements for graduation differed during the following time periods: September 1965 to August 1991; September 1991 to August 2003. Please see the appropriate Calendar(s) for information about GPA requirements during these time periods.

Calendar in effect at the time of entry to Simon Fraser University and the Calendar that was in effect at the time of approval to credential and/or program.

Transfer
Special transfer regulations for the BGS degree provide broadened opportunities for degree completion for students who may have difficulty in availing themselves of courses.

In accordance with normal University regulations, 60 credit hours of transfer and/or course challenge credit may count toward a Simon Fraser University degree. In addition, a further 30 credit hours of transferable credit from a degree granting institution recognized and accepted by Simon Fraser University may be credited toward the BGS degree, provided that the student also completes at least 30 of the required 45 credit hours of upper division credit in Simon Fraser University courses.

Even within these special transfer regulations, students must complete a total of 45 upper division credit hours. Any minor program within the BGS must include at least seven upper division credit hours earned at Simon Fraser University. See “Admission and Readmission” on page 33 for regulations.

Integrated Studies Program
Information is available from the director of integrated studies, Continuing Studies, at the SFU Vancouver Harbour Centre site. Integrated Studies programs within the bachelor of general studies degree are highly structured cohort based programs designed to meet the educational needs of specific student groups. Such programs integrate liberal studies with knowledge and skills associated with a particular field of practice, or with a background common to its students. Students may undertake this degree option only through special admission to an individual program. Integrated studies programs will typically be designed and structured in consultation with external agencies or employers and may therefore have special locations, admission requirements and fee structures.

Because these programs may require and build upon varying levels of previous post-secondary education, related employment experience, and demonstrated intellectual maturity, the credit hours required to earn a degree may in some instances be less than the normal 120 credit hours. All such programs will require a minimum of 60 credit hours in designated Simon Fraser University courses offered within the program, to include at least 45 upper division credit hours.

Each integrated studies program will be governed by an academic steering committee. The curriculum, including both designated courses and total credit hour requirements, admission criteria, and any other special conditions for each individual integrated studies program will be approved in advance by the Faculty of Arts and Social Sciences curriculum committee.

Post Baccalaureate Diploma Programs
The Faculty of Arts and Social Sciences offers disciplinary and interdisciplinary post baccalaureate diplomas. See “Post Baccalaureate Diploma Program” on page 30 in the General Information section.

Certificate Programs
The certificate programs below are administered by the Faculty of Arts and Social Sciences.

The certificate programs listed below may be applied toward a certificate or diploma, but may also be applied toward major programs or minor program requirements or toward a bachelor’s degree under the normal regulations governing those programs.

Certificate in Liberal Arts
This program provides broad exposure to areas of knowledge and methods of inquiry that are essential to a liberal education. It is for those who desire a breadth of learning program. It may be taken in conjunction with a degree program, or by students who are not seeking a degree. Those planning to obtain a BA within the Faculty of Arts and Social Sciences may complete the certificate in such a way that most or all of the Faculty of Arts and Social Sciences breadth requirements are fulfilled by the same courses.

The certificate requires ten courses comprising at least 30 credit hours from a designated courses list. These courses, which include both lower division and some upper division courses, have been carefully chosen for their suitability in providing accessible and valuable material for the generally interested student.

Course Sets
Applicable certificate courses are listed in 12 sets. Each set includes courses from various University departments. For a certificate student to be acquainted with various disciplines and approaches to knowledge, the ten required courses must be distributed across these sets as described below. See “Distribution Requirements” on page 147. The sets, with brief descriptions of the kinds of courses in each, are as follows.

Verbal Skills
These courses enhance the mastery of some basic tools of verbal reasoning and expression. They include courses on writing and critical thinking, and introductory language courses. Students who take an introductory course in a language other than English are strongly urged to complete a second course in that language as part of their certificate program.

The Study of Theory and Theory Building
These courses introduce the nature of explanatory systems in various fields of inquiry. They include various discipline courses that focus on dynamics of theory construction and historical evolution of theory within that discipline. Courses in this set provide appreciation for ways in which the processes of reasoning, argument, observation and analysis are included within the development of disciplines.

The Analysis of Contemporary Issues
These courses examine some current social problems and controversies, emphasizing the application of appropriate conceptual and investigatory methods to areas of public concern. Courses in this set will give students some appreciation for the ways in which careful reasoning and disciplinary knowledge can be applied in clarifying the discussion of public issues.

The Study of Literature
These courses introduce important literary works and to ways of understanding literary expression. They include courses on literature written in English and in other languages, as well as literature in translation.

Fine and Performing Arts
These courses familiarize students with non-literary modes of artistic expression and with important works of art. They include courses on the history and criticism of various arts forms.

Studies in Culture and Civilization
These courses introduce a wide study of cultures and civilizations. They include courses that consider the development of human values, and that take comparative and interdisciplinary approaches to culture, as well as historical studies that include substantial attention to cultural themes.

The Study of Period and Place
These courses study developments in human society with emphasis on historical or regional particularity.
and introduce methods associated with such study. They include courses that focus on regions and regionalism, as well as on specific historical periods.

**Foundations of Social Science**
These courses introduce fundamental concepts and investigation methods in various social science disciplines.

**Social and Behavioral Analysis**
These courses articulate an approach to social structures or to individual or group behavior and apply that perspective to a particular area of social investigation.

**Natural Science**
These courses introduce methods that are basic to natural sciences and to at least one specific science.

**The Impact of Science and Technology**
These courses investigate the social impact of developments in science, technology, and computational and quantitative methods.

**Quantitative Skills**
These courses enhance the mastery of mathematical skills and tools for quantitative reasoning. They include basic level mathematics and computing, and statistics oriented research methods courses.

**Distribution Requirements**
Eight of the required 10 courses must be distributed among the above sets as follows. (See course lists for applicable courses.)
- two courses drawn from any TWO of the sets 1-3
- two courses drawn from any TWO of the sets 4-6
- two courses drawn from any TWO of the sets 7-9
- two courses drawn from any TWO of the sets 10-12

The two additional courses required may be selected from any two sets. Within these distribution requirements, students select any listed courses, and may tailor choices toward their academic needs and interests. Courses applied towards the Certificate in Liberal Arts may also be applied to another degree program, but may not be applied to another certificate or diploma program.

**Course Lists**
Courses within each set, published annually, are available at Student Academic Resources, the Dean of Arts and Social Sciences office and online at www.sfu.ca/arts/cla/courses.htm. Lists include courses approved by senate for program inclusion and occasional courses approved as certificate courses only for a single offering. Some have prerequisites. In most instances, the specific prerequisites may also be completed within the certificate program.

Consult the Calendar and course outlines to understand the nature of courses and prerequisites. Advice is available through departmental advisors, the Office of the Dean of Arts and Social Sciences and Student Academic Resources.

**Transfer Credit**
A 15 credit hour maximum is permitted. Normally, only credit assigned as directly equivalent to a course regularly listed within the program may be transferred.

**Relation to Faculty of Arts and Social Sciences Breadth Requirements**
It is recommended that students planning to major within the Faculty of Arts and Social Sciences complete the Faculty's breadth requirements through the certificate program. Certificate completion does not ensure fulfillment of faculty breadth requirements.

**Certificate for Senior Citizens**
The program provides senior citizens with opportunities to participate in University life, to undertake study relevant to life goals, and to gain recognition for academic achievement. Each fall and spring the University offers courses for adults aged 60 and over at the SFU Vancouver Harbour Centre site. Courses may also be selected from regular University offerings.

**Admission**
Admission regulations apply, most as either secondary school graduates or under the terms of mature student entry (see “Admission and Readmission” on page 33). Also, applicants shall consult a program advisor concerning the demands of the program and their educational objectives.

**Program Requirements**
Successful completion, after age 60, of 30 credit hours, approved by the program co-ordinator or other official appointed by the Dean of Arts and Social Sciences is required.

**Note:** Normally, all courses for the certificate must be taken at SFU and not more than six credit hours of approved transfer credit for university/college work may be applied toward certificate requirements.

**Department of Archaeology**
9635 Education Building, 604.291.3135 Tel. 604.291.5666 Fax, www.sfu.ca/archaeology

- **Chair:** D.V. Burley BA, MA (New Br), PhD (S Fraser)
- **Professors Emeriti:** R.L. Carlson BA, MA (Wash), PhD (Ariz)
- **Professors:** R.M. Holbert BA (New Mexico), MA (Ariz)
- **Associate Professors:** J.C. Driver MA (Camb), PhD (Calg), Dean of Graduate Studies
- **Associate Professors:** M.F. Skinner BA (Alta), PhD (Camb)
- **Adjunct Professors:** L.S. Bell BSc (Brad), MSc, PhD (Univ Coll, London)
- **Assistant Professors:** R.W. Jamieson BSc (Trent), MA (William and Mary), PhD (Calg)
- **Adjunct Professors:** D. Yang BSc (Lanzhou), MSc (Chin Acad Sc), PhD (McM)
- **Associate Members:** D.J. Huntley, Physics
- **Adjunct Professors:** R.L. Carlson BA, MA (Wash), PhD (Ariz)

- **Chair:** Ms G. Wild, 6933A Education Building, 604.291.4687
  - [joint appointment with Resource and Environmental Management]
  - [joint appointment with First Nations Studies]

The department offers various programs leading to the BA degree. Students must meet requirements for the degree (described in the Faculty of Arts and Social Sciences section), should take courses in some complementary disciplines, and should seek departmental advice early in their university careers. Recommended courses: STAT 203 (prerequisite for ARCH 376 which is recommended for majors and required for honors); and SA 101 (recommended for majors and honors).

Upper division archaeology courses are divided into the following groups.

**Group I – Core Program**
ARCH 372-5 Material Culture Analysis
ARCH 373-5 Human Osteology
ARCH 376-5 Quantitative Methods in Archaeology
ARCH 471-5 Archaeological Theory

**Group II – Laboratory Courses**
ARCH 335-5 Special Laboratory Topics in Archaeology
ARCH 340-5 Zoarchaeology
ARCH 348-5 Archaeological Conservation
ARCH 349-5 Management of Archaeological Collections
ARCH 377-5 Historical Archaeology
ARCH 385-5 Paleoanthropology
ARCH 390-5 Archaeobotany
ARCH 432-5 Advanced Physical Anthropology
ARCH 442-5 Forensic Anthropology
ARCH 485-5 Lithic Technology

**Group III – Regional Courses**
ARCH 321-3 Archaeology of Britain
ARCH 330-3 Prehistory of Latin America
ARCH 360-5 Native Cultures of North America
ARCH 370-5 Western Pacific Prehistory
ARCH 378-3 Pacific Northwest North America

**Group IV – Topical Courses**
ARCH 301-3 Prehistoric and Indigenous Art
ARCH 302-5 Art of Ancient Civilizations
ARCH 311-5 Archaeological Dating
ARCH 336-3 Special Topics in Prehistoric and Indigenous Art
ARCH 344-3 Primate Behavior
ARCH 365-3 Ecological Archaeology
ARCH 386-3 Archaeological Resource Management
ARCH 438-5 Geoarchaeology

Special topics and/or directed studies courses may substitute for group II, III or IV courses, provided the content of the special topics and/or directed studies course suits a suitable substitution, and written department consent is obtained prior to registration.

**Major Program**

**Lower Division Requirements**
ARCH 131-3 Human Origins
ARCH 201-3 Introduction to Archaeology
ARCH 272-3 Archaeology of the Old World
ARCH 273-3 Archaeology of the New World

**Upper Division Requirements**
Students must complete at least 30 upper division archaeology credit hours which must include

- at least three group I courses (ARCH 372, 471, and either 373 or 376).

These are strongly recommended that majors students, students interested in physical anthropology, and those contemplating graduate studies, complete all four group I courses.

- at least one group II course
- at least one group III course
- at least two group IV courses

If students take both ARCH 373 and 376, they may use both as group I requirements, or use ARCH 373 as a group II requirement, or ARCH 376 as a group IV requirement.
Honors Program
Archaeology majors who wish honors program admission must have a minimum 3.0 CGPA and department permission. To remain in the program, students must maintain that CGPA and successfully complete 132 credit hours with 50 of those in upper division archaeology. As well as meeting group II, III, and IV requirements for the major, honors students complete all four group I courses, ARCH 498 and 499. See “Bachelor of Arts Degree” on page 144.

Minor Program

Lower Division Requirements
ARCH 131-3 Human Origins
ARCH 201-3 Introduction to Archaeology
and one of
ARCH 272-3 Archaeology of the Old World
ARCH 273-3 Archaeology of the New World

Upper Division Requirements
At least 16 hours of upper division archaeology are required including at least one course from each of groups I, II, III and IV listed above.

Extended Minor Program
This program consists of the lower division requirements for a major and the upper division requirements for an archaeology minor. Programs must be approved by the department advisor.

Languages Other Than English
Those contemplating graduate work are advised to acquire a reading knowledge of at least one language other than English.

Joint Major in Archaeology and Anthropology
Advisors
Ms. G. Wild, Department of Archaeology, 9633A Education Building, 604.291.4687
Ms. K. Payne, Department of Sociology and Anthropology, 5056 Academic Quadrangle, 604.291.3726

This program explores inter-relationships between anthropology and archaeology. Students should plan their program in consultation with both advisors.

Lower Division Anthropology Requirements
Students must complete the following courses.
SA 101-4 Introduction to Anthropology
SA 201-4 Anthropology of Contemporary Life
SA 295-4 Introduction to Social Research
plus four additional 200 level credit hours chosen from anthropology (A) or sociology/anthropology (SA) courses.

Strongly Recommended
SA 286-4 Aboriginal Peoples and British Columbia: Introduction

Lower Division Archaeology Requirements
Students must complete the following courses.
ARCH 131-3 Human Origins
ARCH 201-3 Introduction to Archaeology
ARCH 272-3 Archaeology of the Old World
ARCH 273-3 Archaeology of the New World

Upper Division Anthropology Requirements
At least 20 credit hours of upper division anthropology are required including the following.
SA 301-4 Contemporary Ethnography
SA 356-4 Ethnography and Qualitative Methods
SA 386-4 The Ethnography of Politics
SA 402-4 The Practice of Anthropology
and one other upper division anthropology course.

Highly Recommended
SA 486-4 Aboriginal Peoples and British Columbia: Advanced Seminar (A)

Upper Division Archaeology Requirements
Students are required to complete at least 23 credit hours of upper division archaeology including one of
ARCH 301-3 Prehistoric and Indigenous Art
ARCH 386-3 Archaeological Resource Management
and all of
ARCH 360-5 Native Cultures of North America
ARCH 372-5 Material Culture Analysis
ARCH 471-5 Archaeological Theory
plus one group II archaeology course.
ARCH 378 and 385 are strongly recommended.

Joint Major in Archaeology and First Nations Studies
See “Joint Major in Archaeology and First Nations Studies” on page 167 for program information.

Joint Major in Archaeology and Latin American Studies
See “Joint Major Programs” on page 180.

Co-operative Education Program
This program offers work experience in archaeology and physical anthropology and entails planned semesters of study and employment (term practicum) in an area of the student’s choice.

Requirements
To be admitted, a major must have been declared and the student must have at least 45 credit hours, with a minimum CGPA of 3.0. The following courses (or equivalent as approved by the department co-op education co-ordinator) are recommended.

both
ARCH 131-3 Human Origins
ARCH 201-3 Introduction to Archaeology

one of
ARCH 272-3 Archaeology of the Old World
ARCH 273-3 Archaeology of the New World

three of
ARCH 372-5 Material Culture Analysis
ARCH 373-5 Human Osteology
ARCH 376-5 Quantitative Methods in Archaeology
ARCH 377-5 Historical Archaeology
ARCH 386-3 Archaeological Resource Management
ARCH 442-5 Forensic Anthropology

Contact the co-op co-ordinator, undergraduate chair, and/or departmental assistant at least one semester before the first work semester to participate. See page 240 regarding job competition, student employer responsibilities, student fees, pay rates and evaluation. During work semesters, co-op students are formally registered in a job practicum course and are assessed a fee.

Program continuation requires a minimum 3.0 CGPA in all courses. College transfer students must have at least 15 SFU credit hours to be eligible for co-op admission. Transfer students who have participated in co-operative education programs elsewhere may be credited with the semester(s) already taken pending evaluation and approval of the SFU co-op program.

Asia-Canada Program
5115 Academic Quadrangle, 604.291.3689 Tel, 604.291.4504 Fax, www.sfu.ca/AsiaCanada

Director
(to be announced)
Advisory Committee
S. Duguid, Humanities
J. Eyferth, History
T. Kawasaki, Political Science/Humanities
Z. McRobbie, Linguistics
R. Miki, English
B. Ng, Linguistics
N. Omae, Linguistics
T. Perry, Linguistics
J.W. Walls, Humanities
Y. Wang, Linguistics
D. Yang, Archaeology
T. Yu, Humanities

Advisor
Ms. C. Pirsland, 5114 Academic Quadrangle, 604.291.4094, pirsland@sfu.ca

The Asia-Canada Program offers opportunities to investigate connections between contemporary Canadian society and culture, and that of a variety of Asian countries. Part of the program is a study of one or more Asian languages. The goal of this minor program is to introduce students to the economic, social and cultural connections between Asian countries and Canada.

Minor Program

Lower Division Requirements
18 credit hours including
ASC 101-3 Introduction to Asia-Canada Studies I
ASC 102-3 Introduction to Asia-Canada Studies II
plus one of
ASC 200-3 Introduction to Chinese Culture
ASC 201-3 Introduction to Japanese Culture and History
ASC 202-3 Studies in Asian Cultures
plus one of
CNS 160-3 The Social Background of Canada
CNS 210-3 Foundations of Canadian Culture
HIST 102-3 Canada Since Confederation
HIST 204-3 The Social History of Canada
SA 100-4 Perspectives on Canadian Society

and six credit hours of Chinese or Japanese or another Asian language (to be approved by the advisor). Students who can demonstrate prior knowledge and proficiency that is equivalent to a 100 level course in an Asian language are encouraged to choose another Asian language, or they can substitute the six language credit hours with further lower division Asia-Canada courses. Students eligible for these options must have their language level assessed and receive prior approval from the director and advisor.

Upper Division Requirements
15 credit hours including at least one of
Undergraduate

ASC 300-3 Asians and North Americans in Public Discourse
ASC 301-3 Asia-Canada Identities: Experiences and Perspectives

and at least one other upper division Asia-Canada course.

Note: If both ASC 300 and 301 are taken, students can count one course toward fulfilling the remaining upper division requirements.

To satisfy the remaining nine required credit hours, students must complete courses from the following. With prior permission from the director, students may count other Asia-Canada related courses at the upper division which do not appear on this list. Consult with the program advisor.

ASC 302-3 Selected Topics in Chinese Studies
ASC 303-3 Selected Topics in Japanese Studies
ASC 400-3 Selected Topics in Asia-Canada Studies
ASC 401-3 Directed Studies
BUS 431-3 Business with East Asian Countries
ENGL 394-4 World Literature in English II: Designated by Topic*
HIST 365-4 Self and Society in Imperial China
HIST 471-3 Women in Modern Japanese History
HIST 474-4 Modern Chinese Identities
HIST 481-4 British India
HUM 340-4 Great Cities in Their Time*
HUM 350-4 Great Figures in the Humanities*
POL 335-4 Government and Politics: People's Republic of China I
POL 336-4 Government and Politics: People's Republic of China II
POL 381-4 Politics and Government of Japan I
POL 382-4 Politics and Government of Japan II
POL 430-4 Government and Politics: Selected Asian Nations

*when the topic is Asia-Canada related. Consult program advisor.

Note: Students are responsible for meeting the prerequisites for the upper division courses they are applying to the minor.

Certificate in Chinese Studies

This program offers a course series related to contemporary China. Students receive an introduction to Chinese language and take other related courses. Part of the program involves courses (ASC 205 and six credits of language) that can be taken at a university in China during the SFU Chinese summer field school. The field school requires extra travel and living expenditures. It is, however, not a requirement for the certificate program.

The program is offered by the Asia-Canada Program/Department of Humanities and is administered by the program advisory committee appointed by the Dean of Arts and Social Sciences. Those who plan to do part of their program in China should contact the advisor at least two semesters before the field school.

Admission

There are no special admission requirements. See the Asia-Canada advisor for certificate program approval. China Field School students must apply to the SFU International office. Acceptance into this part will normally require that the student have completed 30 credit hours and be in good academic standing.

Program Requirements

Eighteen credit hours of which 12 are earned by completing four required core courses. The remaining six are selected from the list of electives below.

Core (12 credit hours)

Students must take one of

ASC 200-3 Introduction to Chinese Culture and History
ASC 205-3 Field Studies in Chinese Culture and all of
CHIN 100-3 Mandarin Chinese I*
CHIN 101-3 Mandarin Chinese II*
HIST 255-3 China Since 1800

*Students who take CHIN 185-6 (Intensive Mandarin Chinese in the China Field School) can apply the credit towards either the core or elective requirements or a combination thereof for complete or partial replacement of CHIN 100/101/200/201.

Elective (6 credit hours)

ASC 202-3 Studies in Asian Cultures*
ASC 302-3 Selected Topics in Chinese Studies
CHIN 200-3 Mandarin Chinese III
CHIN 201-3 Mandarin Chinese IV
HIST 254-3 China to 1800
HIST 474-4 Modern Chinese Identities
HUM 203-3 Great Texts in the Humanities II*
HUM 382-4 Selected Topics in the Humanities II*
POL 335-3 Government and Politics: People's Republic of China I
POL 336-3 Government and Politics: People's Republic of China II
SA 275-4 China: Sociological and Anthropological Perspectives

*when the topic is China related. Consult the program advisor.

With prior permission from the director, students may count other China-related courses which do not appear on this list. Consult with the program advisor.

Centre for Canadian Studies

6067 Academic Quadrangle, 604.291.4293 Tel, 604.291.4786 Fax, www.sfu.ca/cns
Director
K. Froschauer BA, MA (Br Col), PhD (Car)
Associated Faculty

Faculty of Applied Sciences

School of Communication

Faculty of Arts and Social Sciences

Department of Archaeology
D.V. Burley, J. Driver, K.R. Fladmark, P.M. Hobler, M.F. Skinner
Centre for Distance Education
K. McManus
School for the Contemporary Arts
C. Browne
School of Criminology

Department of Economics

Department of English
S. Djwa, C. Gerson, R.A. Miki, D. Stouck, P.M. St Pierre

Department of French
L. Bonenfant, R. Canac-Marquis, R. Davison, C. Guilbault, J. Viswanathan, P. Wrenn, S. Steele

Department of Geography
N.K. Blomley, B.E. Bradshaw, A.M. Gill, M. Hayes, R. Hayter, P.M. Koroscil, J.T. Pierce, M. Roseland

Department of History

Department of Humanities
I. Angus, K. Mezey

Department of Political Science

Department of Sociology and Anthropology

Department of Women's Studies
M.G. Cohen

Faculty of Business Administration
G.A. Mauser, J.G. Richards, W.C. Wedley, M. Wexler

Faculty of Education
J.D. Beynon, S.C. de Castell, A.A. Obadia

Faculty of Science

Department of Biological Sciences
R.W. Mathewes

Library
J. Corse
Advisor
Mrs. C. Sauro, 604.291.3588

The Centre for Canadian Studies promotes study and understanding of Canada from a comprehensive cultural, social, political and economic perspective, emphasizing both historical context and contemporaneous development. The centre fully utilizes programs developed by other academic departments that contain relevant Canadian subject matter, and offers limited interdisciplinary courses that integrate knowledge from several relevant disciplines.

For those with a predominant interest in Canadian studies, a major and honors program is provided. The centre also accommodates students whose primary interest is in another discipline. Such students may enrol in a joint major or honors program, combining specialization in the department of their choice with complementary work in Canadian studies.

A certificate in French Canadian studies may be taken concurrently with, and as part of, specialization in Canadian studies honors, major or minor programs, or it may be taken independent of such specialization. Details are given at the end of this section.

Major Program

The requirements are as follows. See “General Information” on page 29 for additional information.

Lower Division Requirements

Students must complete all of
CNS 160-3 The Social Background of Canada
CNS 210-3 Foundations of Canadian Culture
HIST 102-3 Canada Since Confederation and one of
CNS 280-3 Canadian Political Economy
POL 223-3 Canadian Political Economy and one of
POL 221-3 Introduction to Canadian Government
POL 222-3 Introduction to Canadian Politics

Students must demonstrate a working knowledge of French determined by completing FREN 122, or the
**Upper Division Requirements**

one of

CNS 490-5 The Canadian Intellectual Tradition
CNS 491-3 Technology and Canadian Society

At least three other 300-400 level CNS courses must be completed plus 18 additional hours in upper division Canadian studies/Canadian content courses.

No more than 12 credit hours of this requirement may be from curriculum of any single department or program other than Canadian studies.

**Distribution Requirements**

To ensure adequate breadth of knowledge, students must complete at least eight required key courses from at least five departments having courses recognized as carrying Canadian studies credit. These courses can be both upper and lower division.

**Honors Program**

For Canadian Studies honors, students take the same lower division courses and meet the same distribution requirements that apply to the Canadian Studies major, and must also complete the following courses.

**Lower Division Requirements**

HIST 101-3 Canada to Confederation
POL 221-3 Introduction to Canadian Government
POL 222-3 Introduction to Canadian Politics

**Upper Division Requirements**

CNS 490-5 The Canadian Intellectual Tradition
CNS 491-3 Technology and Canadian Society
CNS 495-5 Canadian Studies Honors Essay

At least two other 300-400 level CNS courses must be completed, plus 33 additional upper division credit hours in Canadian studies/Canadian content. No more than 18 hours of this requirement may be from curriculum of any single department or program other than Canadian studies.

Honors students must demonstrate functional bilingual English/French proficiency by completing FREN 221.

See below in the Joint Honors Program regarding level of entry and course challenge procedures.

**Minor Program**

Students must complete nine Canadian studies lower division credit hours which must include two of:

CNS 160-3 The Social Background of Canada
CNS 210-3 Foundations of Canadian Culture
CNS 280-3 Canadian Political Economy

Also, 15 hours of upper division Canadian studies/Canadian content course work are required, one of which must be a CNS 300-400 level course.

Students taking the Canadian studies minor with a major, minor or honors in another department or program may not count any Canadian content course being used by that department or program as part of their Canadian studies minor requirement. A working knowledge of French is recommended. Students pursuing a Canadian studies minor do not have to satisfy any key course requirements.

**Joint Major Programs**

Joint majors with the Centre for Canadian Studies are available with the Departments of Archaeology. Criminology, English, Geography, History, Political Science, and Sociology and Anthropology, and with the School of Communication.

With the exception of a joint major in history (see page 150), students must complete all requirements for a Canadian studies major and the other subject. Any lower division course that counts toward the separate requirements for Canadian studies and for the other subject may be counted towards both. Up to 12 upper division credit in both Canadian studies and the other subject may be counted toward the upper division credit requirements of both. A joint major in Canadian studies and another subject that also specifies 30 upper division credit hours will therefore require a total of 48 upper division credit hours in the two subjects (30 Canadian studies plus 30 in the other subject minus 12 overlap).

Joint major students are required to complete all the key courses listed for the department in which they are pursuing the other major.

**Joint Major in Canadian Studies and Sociology and/or Anthropology**

There are three joint major combinations of Canadian studies with sociology and anthropology. The total upper division credit requirement for this is 58 credit hours (30 Canadian studies plus 20 sociology plus 20 anthropology minus 12 overlaps).

**Joint Major in Canadian Studies and History**

Students must complete all requirements for a Canadian Studies major plus 24 upper division history credit hours, of which 12 credit hours must be at the 400 level. All upper division courses must be distributed within groups 1, 2 and 3. Students must take at least two from any two groups, and at least one from the remaining group. For a description of the three groups, see “Major Program” on page 175.

**Joint Honors Program**

Students complete all requirements for a Canadian studies major and honors in the other subject. Any lower division course that counts toward the separate Canadian studies requirements and the other subject may be counted towards both. Up to 15 upper division credit hours in both Canadian studies and the other subject may count towards the upper division requirements of both. Joint honors in Canadian studies and another subject that require 50 upper division credit hours will therefore require 65 upper division credit hours in the two subjects (30 CNS plus 50 in the other subject minus 15 overlap). For joint honors with sociology or anthropology, 75 upper division credit hours are required (30 CNS plus 28 sociology plus 20 anthropology plus four additional sociology or anthropology minus 15 overlap with Canadian studies).

Students must also complete the key overlap courses specified below for the Canadian studies joint major and the other subject, as well as the French language qualification specified above. To determine the level of entry in the French language program, students must take a Department of French placement test. Students may challenge FREN 210, 211, 221 and 222. Please see “Course Challenge” on page 46.

**Extended Minor Program**

This program consists of the lower division requirements for a major and the upper division requirements for a minor. Certain other criteria may be set by individual departments. Students must have their program approved by the advisor.

**Canadian Content Courses**

There are two categories that carry Canadian studies credit. ‘Internal’ Canadian studies (CNS) courses are multidisciplinary or may be special topics courses, and are unique to the Canadian studies curriculum. See “Canadian Studies CNS” on page 339. The other category comprises predominantly Canadian content courses offered by other departments. These are listed below. Some are considered key and are identified at the bottom of each departmental listing. Asterisked courses (*) taken for Canadian studies credit require the approval of the Centre for Canadian Studies director.

Additional courses may be approved for Canadian studies credit while others may be dropped. Check with the Centre for Canadian Studies for a current list.

---

**Undergraduate**

150 Faculty of Arts and Social Sciences – Centre for Canadian Studies

Simon Fraser University 2005 • 2006
Key courses for Geography: GEOG 162, 462; one of 469, 470

Department of History
HIST 101-3 Canada to Confederation
HIST 102-3 Canada Since Confederation
HIST 201-3 History of Western Canada
HIST 204-3 The Social History of Canada
HIST 326-4 History of Aboriginal Peoples of North America since 1850
HIST 327-4 Canadian Labour and Working Class History
HIST 328-4 The Province of Quebec from Confederation
HIST 329-4 Canadian Family History
HIST 424-4 Problems in the Cultural History of Canada
HIST 425-4 Gender and History
HIST 428-4 Problems in the Social and Economic History of Canada
HIST 430-4 New France
HIST 431-4 Problems in the History of British North America 1760-1850
HIST 432-4 Problems in Environmental History
HIST 435-4 Problems in the History of the North American West
HIST 436-4 British Columbia
Key courses for History: HIST 101, 102, 328; one of 201, 435, 436; one of 424, 428; one of HIST 326, 327, 329

Latin American Studies Program
LAS 320-3 Canada and Latin America
Key course for Latin American Studies: LAS 320

Department of Political Science
POL 151-3 The Administration of Justice
POL 221-3 Introduction to Canadian Government
POL 222-3 Introduction to Canadian Politics
POL 251-3 Introduction to Canadian Public Administration
POL 252-3 Local Democracy and Governance
POL 321-4 The Canadian Federal System
POL 322-4 Canadian Political Parties
POL 323-4 Provincial Government and Politics
POL 324-4 The Canadian Constitution
POL 327-4 Globalization and the Canadian State
POL 347-4 Introduction to Canadian Foreign Policy
POL 352-4 Local and Urban Governance in Canada
POL 353-4 Public Sector Management
POL 354-4 Comparative Metropolitan Governance
POL 355-4 Governing Instruments
POL 422-4 Canadian International Security Relations
POL 423-4 BC Government and Politics
POL 424-4 Quebec Government and Politics
POL 426-4 Canadian Political Behavior
POL 428-4 Selected Topics in Canadian Government and Politics I
POL 429-4 Selected Topics in Canadian Government and Politics II
POL 451-4 Public Policy Analysis
POL 454-4 Urban Public Policy Making*
POL 455-4 Issues in Economic and Social Policy*
POL 458-4 Selected Topics in Local and Urban Government and Politics*
POL 459-4 Selected Topics in Public Policy, Public Administration and Public Law*
Key courses for Political Science: POL 221, 222, 321, 324, 451

Department of Sociology and Anthropology
SA 100-4 Perspectives on Canadian Society
SA 296-4 Aboriginal Peoples and British Columbia: Introduction
SA 292-4 Special Topics in Sociology*
SA 293-4 Special Topics in Anthropology*
SA 300-4 Canadian Social Structure
SA 334-4 Gender Relations and Social Issues*
SA 386-4 Native Peoples and Public Policy*
SA 396-4 Selected Regional Areas*
SA 400-4 Canadian Ethnic Minorities
SA 486-4 Aboriginal Peoples and British Columbia: Advanced Seminar
Key courses for Anthropology: SA 100, 400, 486
Key courses for Sociology: SA 100, 300, 400
Key courses for Sociology and Anthropology: SA 100, 300, 400, 486

Department of Women's Studies
WS 101-3 Introduction to Women's Issues in Canada
WS 201-3 Women in Canada 1600-1920
WS 202-3 Women in Canada 1920 to the Present
WS 301-4 Special Topics in Women's Studies*
WS 302-4 Special Topics in Women's Studies*
WS 303-4 Special Topics in Women's Studies*
WS 307-3 Women and British Columbia
Key courses for Women's Studies: WS 101, 201, 202, 307

Faculty of Business Administration
BUEC 280-3 Introduction to Labor Economics
BUEC 391-3 Law in the Economic Society
BUEC 396-3 The Structure of Industry
BUEC 433-3 Forecasting in Business and Economics
BUEC 485-3 Collective Bargaining
BUS 490-3 Selected Topics in Business Administration
BUS 491-3 Selected Topics in Business Administration
BUS 492-3 Selected Topics in Business Administration
BUS 493-3 Selected Topics in Business Administration
BUS 494-3 Selected Topics in Business Administration
BUS 495-5 Selected Topics in Business Administration
BUS 498-3 Directed Studies
BUS 499-5 Directed Studies*
Key courses for Business Administration: BUS 303, BUEC 280, BUEC 396.
Key courses for Business Administration and Economics: BUS 303, ECON 353, BUEC 391; any three of ECON 381, 390, BUEC 396.

Faculty of Science
Department of Biological Sciences
BISC 310-3 The Natural History of British Columbia

Certificate in French Canadian Studies
The program serves full and part time students, and those seeking educational enrichment only who may be attracted by the opportunities which the Office of Continuing Studies offers, particularly through evening courses. French Canadian background material requires basic French language competency.

Requirements
Students must complete
FREN 230-3 Introduction to French-Canadian Literature
FREN 329-4 The Province of Quebec from Confederation
POL 424-4 Quebec Government and Politics
Students must also achieve competence in the French language by either
• completing six credit hours from group B courses below, or equivalent transfer credit as confirmed by a placement test administered by the Department of French. (Students who wish to concentrate on reading knowledge of French should take FREN 198

Simon Fraser University 2005 • 2006
In the last 30 years, research has surged in various aspects of cognition affecting many fields including psychology, linguistics, philosophy, computing science, education, anthropology, communications, and sociology. The extent of the influence varies, but the greatest impact within psychology has been the subfields of psycholinguistics, cognitive psychology, and developmental psychology; within philosophy, on philosophy of language, philosophical logic, and philosophy of mind; within linguistics, on semantics, syntax, phonology, and phonetics; and within computing science, on artificial intelligence.

Those working in these areas find they read the same literature and ask closely related questions in research and teaching. Evidently, an increasing work in these fields belongs to a common area which cuts across traditional departmental organization. Several journals and many essay collections contain articles from each of these fields. At SFU, this interrelation is reflected in courses which draw on research; courses in cognition and language are spread over different departments. This program offers students a structured and integrated study of cognition.

**Breadth Requirements**

Students must fulfil the Faculty of Arts and Social Sciences breadth requirements (see page 145).

**Languages Other Than English**

Most graduate schools require some proficiency in one or two languages other than English. Those who contemplate graduate studies are advised to include language courses in their programs.

**Major Program**

A 2.0 GPA or higher in each discipline is required for continuation and graduation. Only courses from each discipline, that satisfy the requirements of the program, will be used to calculate this GPA.

**Lower Division Requirements**

**Introductory Courses (21–27 credit hours)**

A student must take COGS 100 plus the following.

**Computing Science**

Students must complete CMPT 150-3 Introduction to Computer Design and either CMPT 126-3 Introduction to Computing Science and Programming or both of CMPT 120-3 Introduction to Computing Science and Programming I CMPT 125-3 Introduction to Computing Science and Programming II

Additionally, students who choose intermediate level computing science, must complete the following.

**LINGUISTICS**

LING 220-3 Introduction to Linguistics

Additionally, students who choose intermediate level linguistics must complete the following course.

LING 130-3 Discrete Mathematics I

**PHILOSOPHY**

PHIL 100-3 Knowledge and Reality

**PSYCHOLOGY**

PSYC 100-3 Introduction to Psychology I PSYC 102-3 Introduction to Psychology II

**Intermediate Courses (13–24 credit hours)**

A student must fulfil the requirements listed below for at least three of the four disciplines.

**Computing Science**

CMPT 225-3 Data and Structure and Programming

**LINGUISTICS**

LING 221-3 Introduction to Phonology

**PHILOSOPHY**

PHIL 210-4 Elementary Formal Logic I

**Psychology**

PSYC 201-4 Introduction to Research Methods in Psychology

PSYC 210-4 Introduction to Data Analysis in Psychology

PSYC 221-3 Introduction to Cognitive Psychology

PSYC 280-3 Introduction to Biological Psychology

**Upper Division Requirements**

A student must choose COGS 300, plus fulfil the requirements listed below for the three disciplines selected previously at the intermediate level.

**Computing Science**

one of CMPT 383-3 Comparative Programming Languages CMPT 384-3 Symbolic Computing plus any two of CMPT 351-3 Artificial Intelligence Survey CMPT 411-3 Knowledge Representation CMPT 412-3 Computational Vision CMPT 413-3 Computational Linguistics CMPT 414-3 Model-based Computer Vision

**LINGUISTICS**

any three of LING 321-3 Phonology LING 322-3 Syntax LING 323-3 Morphology LING 324-3 Semantics LING 330-3 Phonetics

**PHILOSOPHY**

any three of PHIL 341-3 Philosophy of Science PHIL 343-3 Philosophy of Mind PHIL 344-3 Philosophy of Language I PHIL 444-4 Philosophy of Language II

**Psychology**

any three of PSYC 303-3 Perception PSYC 325-4 Memory and Mind PSYC 330-3 Attention PSYC 335-3 Sensation PSYC 382-3 Cognitive Neuroscience

**Honors Program**

A GPA of 3.0 in all courses in the cognitive science program is required for entrance and continuation in this program. Those interested in the honors program should consult the co-ordinator of the cognitive science program.

Two options are available: option A and option B.

**Option A**

A student must fulfil the requirements for a major in cognitive science and choose the courses listed below for one of the disciplines, and complete COGS 490-5 Honors Project I COGS 491-5 Honors Project II

**Computing Science**

MACM 300-3 Formal Languages and Automata with Applications MACM 402-3 Automata and Formal Languages

**LINGUISTICS**

CMPT 383-3 Comparative Programming Languages CMPT 384-3 Symbolic Computing CMPT 411-3 Knowledge Representation CMPT 412-3 Computational Vision CMPT 413-3 Computational Linguistics CMPT 414-3 Model-based Computer Vision CMPT 419-3 Topics in Artificial Intelligence

**PHILOSOPHY**

any four of LING 400-3 Formal Linguistics

---

**Cognitive Science Program**

5605 Diamond Building, 604.268.7127 Tel, 604.268.7128 Fax, www.sfu.ca/cognitive-science

Co-ordinator

F. Popowich, BSc, MSc (S Fraser), PhD (Edin)

604.291.4193, popowich@sfu.ca

Advisor

Ms S. Senaratne, 5605 Diamond Building, 604.268.7127, ssenarat@sfu.ca

The following programs are offered.

**BA with a major in cognitive science**

* Honors in cognitive science: option A and option B

In the last 30 years, research has surged in various aspects of cognition affecting many fields including psychology, linguistics, philosophy, computing science, education, anthropology, communications, and sociology. The extent of the influence varies, but the greatest impact within psychology has been the subfields of psycholinguistics, cognitive psychology, and developmental psychology; within philosophy, on philosophy of language, philosophical logic, and...
LING 401-3 Advanced Phonetics
LING 403-3 Topics in Phonology
LING 405-3 Advanced Syntax
LING 406-3 Advanced Semantics
LING 423-3 Advanced Morphology

Philosophy
PHIL 301-3 Epistemology
PHIL 331-3 Selected Topics II
PHIL 340-3 Philosophical Methods
PHIL 453-4 Background to Analytical Philosophy

Psychology
any three of the following courses which have not been taken previously
PSYC 303-3 Perception
PSYC 330-3 Attention
PSYC 430-4 Selected Topics in Cognition
PSYC 432-4 Selected Topics in Cognition II
PSYC 480-4 Selected Topics in Biological Psychology I
PSYC 482-4 Selected Topics in Biological Psychology II

Option B
A student must fulfill the requirements for a major in cognitive science and choose any combination of courses listed above totalling at least eleven credit hours accepted by the cognitive science steering committee, and choose COGS 490 and 491.

Co-operative Education
This program, for qualified students who wish cognitive science practical experience, entails planned study and employment semesters. To be eligible, students must normally have completed 30 credit hours including COGS 100 and four other COGS courses. At least 15 of these 30 must be completed at SFU with a minimum CGPA of 2.75. College transfer students must complete at least 15 credit hours at SFU for co-op admission and must satisfy the requirements given above, or their equivalents. College transfer students who participated in co-op programs elsewhere may be credited with the semester(s) already taken. The applicability of such semesters depends on the evaluation of the Cognitive Science Program. The following four courses are completed during four work semesters.

COGS 370-0 Cognitive Science Practicum I
COGS 371-0 Cognitive Science Practicum II
COGS 470-0 Cognitive Science Practicum III
COGS 471-0 Cognitive Science Practicum IV

Arrangements for work semesters are made through the Faculty of Arts and Social Sciences co-op co-ordinator at least one semester in advance. To continue in the program, students must maintain a minimum 2.75 CGPA in the academic course work.

Contact the cognitive science co-ordinator for further information; see Co-operative Education (page 240).

School for the Contemporary Arts
Room 600 SCA, 604.291.3363 Tel.
604.291.5907 Fax, www.sfu.ca/scsa, ca@sfu.ca

Director
M.S. Gotfrit BA (C'dia), MA (McG)

Professors Emeriti
S.A. Aloï BA (Cornell), MA (Col) – dance
G. Strate BA, LLB (Alta) – dance

Dena Wask University Professorship in Art and Culture Studies
L. Marks BA (Swarthmore), MA, PhD (Roch)

Professors
C.V.A. Browne BA (RMC), MA (S Fraser) – film
A. Clay BFA (Nova Scotia Art & Des), MFA (Br Col) – visual art
M. Diamond BA (WOnt), MA, PhD (Tor) – theatre
D.K. MacIntyre BMus, MMus (Vic, BC) – music/interdisciplinary
G. Snider BS, MFA (Wash) – visual art
B.D. Truax BSc (Que), MMus (Br Col) – music*
O. Underhill BMus (Vic, BC), MA (NY State) – music
C. Weslaby BA (Lond Inst) – film

Associate Professors
H. Daniel MA (City University, London, UK) – dance
H. Dawkins BFA (Nova Scotia Art & Des), MA, PhD (Leeds) – interdisciplinary
M. Eist BA (American DC), MFA (NY) – dance
J. Garay – dance
M.S. Gotfrit BA (C’dia), MA (McG) – music
P. Gruben BA (Rice) – film
D.D. Kugler BA (Ohio Northern), MFA (York, Can) – theatre
J. Levitin BA, MA (Wash), PhD (NY State) – film**
J. Radul BA (S Fraser), MFA (Bard) – visual art
P. Stella AB (III) – theatre
J. Yoon BA (Br Col), BFA (Emily Carr), MFA (C’dia) – visual art

Assistant Professors
A. Eigenfeldt BMus (Br Col), MA (S Fraser), DM (Northwestern) – music
R. Kitsos BA (Bard), MFA (Wash) – dance
D. Oleksiuk BA, MA (Tor), PhD (Br Col)

Senior Lecturers
R. Groeneboer BA (Calvin Coll, Michigan), MSc (Wash) – film
G. Harris – production and design, technical theatre
B. Hegland BA (Leth), MFA (III) – production and design, technical theatre
J.A. Macfarlane BA (Reed) – production and design, technical theatre
C. Prophet BA (York, Can) – dance

Laboratory Instructors
T. Kerr – film
A. Smith – dance, music

Advisor
Ms. L. Hegland BGS (S Fraser), CA 601,
604.291.3363, lhegland@sfu.ca

*joint appointment with communication
**joint appointment with women’s studies

The school is committed to the study, production and promotion of contemporary art. The school’s philosophy is that the theory and practice of art, the doing and thinking, cannot be separated: all programs within the school, therefore, combine theoretical and critical study with practical experience. Theoretical and critical studies include the historical development of and the interrelationships among the arts, the process of art-making, and the relationship between art and the world within which it is made. Practical experience is available within studio or laboratory courses, and students are encouraged to acquire additional practical experience by participating in extracurricular productions, exhibitions or performances.

The School for the Contemporary Arts offers general interest courses and sponsors a variety of public events in order to make contemporary art more accessible to, and to provide cultural activities for, the wider community.

Admission
Admission to all contemporary arts programs and courses is contingent upon admission to the University. Contact Student Services for information on admission procedures, requirements and deadlines.

Entry to all programs and to many courses is by audition, interview or application. Contact the office for information on procedures and deadlines.

Although the University operates on a trimester system, most FPA courses are planned in a two semester (fall and spring) sequence. Consequently, students must seek fall semester (September) entry to the School for the Contemporary Arts programs and are advised to contact the school in the preceding January for information on program entry and requirements.

Transfer Credit and Advanced Placement
Unassigned or general elective (type 2 and 3, respectively) transfer credit which has been awarded for courses completed at other recognized post-secondary institutions, will not automatically entitle students to advanced placement in the school’s programs. Advanced placement is generally given on an individual basis as a result of an audition or interview.

Programs Offered
The School for the Contemporary Arts offers the following programs:
Major in Art and Culture Studies (BA)
Major in Dance (BA)
Major in Film (BA)
Major in Music (BA)
Major in Theatre (BA)
Major in Visual Art (BA)
Joint Major in Art and Culture Studies and Anthropology
Joint Major in Art and Culture Studies and Sociology
Extended Minor in Dance
Extended Minor in Film
Extended Minor in Music
Extended Minor in Theatre
Extended Minor in Visual Arts
Minor in Art and Culture Studies
Minor in Fine and Performing Arts
Minor in Film and Video Studies
Master of Fine Arts – page 285

About the School’s Course Offerings
Students are encouraged to take advantage whenever possible of interdisciplinary offerings with the school. As many of the programs depend on a continuing sequence of courses to be taken in order, students should plan their programs carefully to gain the maximum benefit and efficiency from their course of study. Note that not all courses are offered every semester and several are offered on a rotational basis, i.e. every third or fourth semester. An advisor is available in the school's main office to help students plan their programs.

Students are reminded that the school is an interdisciplinary fine and performing arts department, and are strongly advised to acquaint themselves with the many disciplinary courses that are available.

Non-Specialist FPA Courses
The following FPA courses may be of particular interest to students in other departments.
Art and Culture Studies: FPA 111, 210, 289, 310, 311, 312, 313, 314, 389, 411, 412, 414, 416
Dance: FPA 120, 129, 226, 227, 229
Film: FPA 136, 137, 236, 237, 335, 337, 436
Music: FPA 104, 140, 243, 249, 341
Theatre: FPA 150, 151, 170, 171, 257, 259, 270, 357
Visual Art: FPA 160, 161, 167, 168
Special Topics Courses
The subject matter (and prerequisites) of special or selected topics courses vary by semester.

Prior Approval Prerequisite
Where a prerequisite is or includes "prior approval," approval must be obtained before registering in the course. Contact the school for further information.

Courses Divided by Discipline
FPA course disciplines are indicated by the middle digit of the course number:
0, interdepartmental or school-wide
1, art and culture studies
2, dance
3, film
4, music
5 and 6, performance stream in theatre
7, visual art
8, production stream in theatre
9, video (film)

Examples: FPA 120 – dance; FPA 140 – music; FPA 111 – art and culture studies

Suggested Courses for Interdisciplinary Requirements
For clarification, the courses listed below are the offerings from individual areas available to students in the school requiring credits in other disciplines, either in studio or in theory/history. Students from the university at large may also find these courses of interest. Students are also advised that some of the courses listed below may have prerequisites.

Lower Division Theory and History Courses
FPA 111-3 Issues in the Fine and Performing Arts
FPA 210-3 Arts, Theories, Contexts
FPA 136-3 The History and Aesthetics of Cinema I
FPA 137-3 The History and Aesthetics of Cinema II
FPA 140-3 Music in the Twentieth Century
FPA 167-3 Visual Art and Culture I
FPA 168-3 Visual Art and Culture II
FPA 227-3 History of Dance, Twentieth Century
FPA 229-3 Selected Topics in Dance I
FPA 236-3 Cinema in Canada
FPA 237-3 Selected Topics in Film and Video
FPA 243-3 Theory of Contemporary Music
FPA 244-3 Selected Topics in Music I
FPA 257-3 Context of Theatre I
FPA 259-3 Selected Topics in Theatre I
FPA 269-3 Selected Topics in Visual Arts I
FPA 289-3 Selected Topics in the Fine and Performing Arts I

*this course may only count in this category when it is offered as a studio course

Lower Division Studio Courses
FPA 120-3 Introduction to Contemporary Dance
FPA 124-3 Dance Improvisation
FPA 129-3 Fundamental Integration of Human Movement
FPA 145-3 Introduction to Music Composition
FPA 147-3 Introduction to Electroacoustic Music
FPA 150-3 Introduction to Acting I
FPA 151-3 Introduction to Acting II
FPA 160-3 Introductory Studio in Visual Arts I
FPA 161-3 Introductory Studio in Visual Arts II
FPA 170-3 Introduction to Production Technology
FPA 171-3 Stage and Production Management
FPA 229-3 Selected Topics in Dance II
FPA 232-3 Film Sound
FPA 243-3 Gamelan I
FPA 247-3 Electroacoustic Music I
FPA 249-3 Selected Topics in Music I
FPA 259-3 Selected Topics in Theatre I
FPA 262-3 Methods and Concepts: Drawing Practices
FPA 263-3 Methods and Concepts: Painting Practices

FPA 265-3 Methods and Concepts: Photographic Practices
FPA 268-3 Methods and Concepts: Spatial Presentation
FPA 269-3 Methods and Concepts: Selected Topics
FPA 270-3 Technical Theatre
FPA 289-3 Selected Topics in the Fine and Performing Arts I
FPA 290-3 Video Production I

*this course may only count in this category when it is offered as a studio course

Upper Division Theory and History Courses
FPA 310-4 The Interdisciplinary Methods
FPA 311-4 Interdisciplinary Studies in the Arts
FPA 312-3 Intermediate Seminar in Art and Culture
FPA 313-5 Arts, Audience, Patronage, Institutions
FPA 314-3 Readings in the History of Art and Culture
FPA 325-3 Introduction to Film Theory
FPA 337-3 Intermediate Selected Topics in Film and Video Studies
FPA 341-3 World Music
FPA 344-3 Contemporary Music Analysis and Criticism
FPA 349-3 Selected Topics in Music II
FPA 357-3 Context of Theatre II
FPA 359-3 Selected Topics in Theatre II
FPA 366-3 Seminar in Visual Art I
FPA 367-3 Seminar in Visual Art II
FPA 369-3 Selected Topics in Visual Art II
FPA 389-3 Selected Topics in the Fine and Performing Arts II
FPA 411-3 Interdisciplinary Topics in the Contemporary Arts
FPA 412-4 Advanced Seminar in Art and Culture Studies
FPA 414-3 Advanced Topic in the History of Art and Culture
FPA 416-3 Practices in Art and Culture
FPA 436-3 Advanced Seminar in Film and Video Studies
FPA 457-3 Context of Theatre III

*this course may only count in this category when it is offered as a theory/history course

Upper Division Studio Courses
FPA 324-3 New Dance Composition
FPA 325-3 Special Project in Dance Composition
FPA 343-3 Gamelan II
FPA 349-3 Selected Topics in Music II
FPA 359-3 Selected Topics in Theatre II
FPA 369-3 Selected Topics in Visual Art II
FPA 375-3 Stage Design
FPA 389-3 Selected Topics in the Fine and Performing Arts II
FPA 390-3 Video Production II
FPA 425-5 Intensive Studies in Performance
FPA 426-3 Dance/Movement Analysis
FPA 443-3 Gamelan II
FPA 489-3 Interdisciplinary Project in Fine and Performing Arts

*this course may only count in this category when it is offered as a studio course

Bachelor of Arts Degree Program

Art and Culture Studies Major Program
This major leads to a bachelor of arts degree. Within the fine and performing arts, there are lively debates about the meaning and significance of individual artworks, as well as their relationships to audiences and to other forms of culture. The program investigates art and culture with attention to the historically changing forms of class, gender, race, ethnicity, sexuality and aesthetics. It aims to provide students with the knowledge, research and communication skills needed to participate effectively in contemporary debates about art and culture. The core program includes two introductory studio courses from a multidisciplinary range of choices; these provide students with experience of the creative process in dance, music, theatre, video or visual art. The program is interdisciplinary in nature, but also provides a knowledge of and sensitivity to the distinctive qualities of specific art forms. Course selection beyond the program’s core is flexible and students are encouraged to shape their studies in the school, or in the University at large, in relation to their own interests and curiosity.

Lower Division Requirements
Students must complete 27 credit hours, as follows.
All of
FPA 136-3 History and Aesthetics of Cinema I
FPA 137-3 History and Aesthetics of Cinema II
FPA 167-3 Visual Art and Culture I
FPA 170-3 Introduction to Production Technology
FPA 210-3 Arts, Theories, Contexts

Additional Disciplinary History and Theory Courses
Students must complete at least six credit hours of lower division disciplinary history or theory courses from within the School for the Contemporary Arts.

Note: with permission, other courses that are germane to the student’s Art and Culture Studies program may count toward this requirement.

Studio Courses
Students must complete at least six credit hours of studio courses from within the School for the Contemporary Arts.

Upper Division Requirements
A minimum of 30 credit hours must be completed as follows.
FPA 310-4 Interdisciplinary Methods
plus 18 to 20 credit hours from the following
FPA 311-4 Interdisciplinary Studies in the Arts*
FPA 312-3 Intermediate Seminar in Art and Culture*
FPA 313-5 Arts, Audience, Patronage, Institutions*
FPA 314-3 Readings in the History of Art and Culture*
FPA 411-3 Interdisciplinary Studies in the Contemporary Arts*
FPA 412-4 Advanced Seminar in Art and Culture*
FPA 414-3 Advanced Topic in the History of Art and Culture*
FPA 416-3 Practices in Art and Culture*
FPA 436-3 Advanced Seminar in Film and Video Studies*
FPA 457-3 Context of Theatre III*

*this course may be taken more than once for credit if the topic changes

Additional Courses
Six to eight credit hours of additional upper division courses in the fine or performing arts must be completed. Courses in the above list of Art and Culture courses can be used to fulfill this requirement, as can other history, theory or studio courses offered by the School for the Contemporary Arts.

Relevant courses in other departments may also be used to fulfill this requirement. Students advisors in the School for the Contemporary Arts can provide students with a list of courses in other departments that are pertinent to the Art and Culture program. Students can also obtain individual approvals for courses other than FPA courses by providing course descriptions to the student advisors in the school.

Students are encouraged to plan in advance as some upper division courses in the school and in other departments may not be offered each year. Students who wish to take upper division courses must make sure they have the disciplinary prerequisites and should be aware that studio courses may have limited enrollments.
Art and Culture Studies Minor

Within the fine and performing arts, there are lively debates about the meaning and significance of individual artworks, as well as their relationships to audiences and to other forms of culture. Art and Culture studies investigates the arts with attention to the historically changing forms of class, gender, race, ethnicity, sexuality and aesthetics. The program is interdisciplinary in nature, but also provides a knowledge of and sensitivity to the specific qualities of diverse artforms. The minor program is an excellent foundation for a dynamic, lifelong interest in the fine and performing arts, while complementing other programs of study.

Lower Division Requirements

Students are required to complete a minimum of 12 credit hours as follows.

one of

FPA 167-3 Visual Art and Culture I
FPA 168-3 Visual Art and Culture II

one of

FPA 136-3 History and Aesthetics of Cinema I
FPA 137-3 History and Aesthetics of Cinema II

plus

FPA 210-3 Arts, Theories, Contexts

plus three credit hours of lower division history, theory, or studio courses within the School for the Contemporary Arts.

Upper Division Requirements

A minimum of 17 credit hours must be completed as follows.

FPA 310-4 Interdisciplinary Methods

plus a minimum of 10 credit hours from the following.

FPA 311-4 Interdisciplinary Studies in the Arts*
FPA 312-3 Intermediate Seminar in Art and Culture*
FPA 313-5 Arts, Audience, Patronage, Institutions*
FPA 314-3 Readings in the History of Art and Culture*
FPA 411-3 Interdisciplinary Studies in the Arts*
FPA 412-4 Advanced Seminar in Art and Culture*
FPA 414-3 Advanced Topic in the History of Art and Culture*
FPA 416-3 Practices in Art and Culture*

(FPA 311, 312, 313, 314, 315 taken prior to 99-2 will count toward this requirement.)

"this course may be taken more than once for credit if the topic changes.

plus three credit hours of upper division history or theory courses from within the School for the Contemporary Arts. The Art and Culture courses in the list above can be used to fulfill this requirement.

Bachelor of Fine Arts Degree Program

Degree Requirements

To complete a Bachelor of Fine Arts, students must complete a minimum of 120 credit hours, 30 of which must satisfy the Faculty of Arts and Social Sciences breadth requirements. (See "Breadth Requirements" on page 145.) Within the minimum total of 120 credit hours, a minimum of 45 credit hours must be in upper division courses.

To complete a Contemporary Arts major, students must include the following credit hours in the 120 that are required for this degree.

- dance major 80 credit hours
- film major 74 credit hours
- music major 76 credit hours
- theatre major (performance stream) 74 credit hours
- theatre major (production and design stream) 69 credit hours
- visual arts major 75 credit hours

Dance Major Program

The BFA major in dance approaches dance as an art form and integrates theory with creative and technical studio courses. Emphasis is given to contemporary dance technique, composition and experimentation. Courses are also offered in body conditioning practices, ballet history and criticism, and movement analysis. Course work in other artistic disciplines is encouraged, and opportunities for participation in a variety of productions are available. The program is intended for students who desire to study dance in relation to other contemporary art disciplines and academic fields.

Entry to FPA 122 Contemporary Dance I is by audition/interview usually scheduled for early spring or late summer. Contact the general office to make an appointment.

Continuation in the dance major will be contingent upon the successful completion of FPA 122, 123, 124 and 129 and the approval of the Dance Area. Interviews will be held at the end of the first year and approval will be based on the student’s potential, progress, academic record and suitability for the program.

Students are encouraged to plan their program in consultation with the School for the Contemporary Arts’ advisor.

Lower Division Requirements

A minimum of 40 credit hours must be completed including all of

FPA 111-3 Issues in the Fine and Performing Arts
FPA 122-4 Contemporary Dance I
FPA 123-4 Contemporary Dance II
FPA 124-3 Dance Improvisation
FPA 129-3 Fundamental Integration of Human Movement
FPA 220-4 Contemporary Dance II
FPA 221-4 Contemporary Dance IV
FPA 224-3 Dance Composition I
FPA 227-3 History of Dance: The 20th Century

plus six additional credit hours in lower division FPA courses outside of dance.

Upper Division Requirements

A minimum of 40 credit hours must be completed including all of

FPA 220-4 Contemporary Dance I
FPA 221-4 Contemporary Dance II
FPA 224-3 Dance Composition I
FPA 227-3 History of Dance: The 20th Century

plus one of

FPA 321-3 Issues in Dance
FPA 322-3 Ballet I
FPA 323-3 Ballet II
FPA 325-3 Special Project in Dance Composition
FPA 326-4 Repertory I
FPA 327-4 Repertory II
FPA 420-4 Contemporary Dance VII
FPA 421-4 Contemporary Dance VIII
FPA 425-4 Intensive Studies in Performance
FPA 427-3 Ballet III
FPA 428-3 Ballet IV
FPA 429-3 Dance/Movement Analysis

*plus 18 credit hours selected from the following

FPA 322-3 Ballet I
FPA 323-3 Ballet II
FPA 325-3 Special Project in Dance Composition
FPA 326-4 Repertory I
FPA 327-4 Repertory II
FPA 420-4 Contemporary Dance VII
FPA 421-4 Contemporary Dance VIII
FPA 425-4 Intensive Studies in Performance
FPA 427-3 Ballet III
FPA 428-3 Ballet IV

*other dance related courses may be substituted with permission of the school

plus one of

FPA 311-4 Interdisciplinary Studies in the Arts
FPA 313-5 Arts, Audience, Patronage, Institutions

plus three additional credit hours in an upper division FPA course outside of dance.

Program with National Ballet School

In addition to the BFA in dance and the extended minor, the School for the Contemporary Arts offers a combined degree/diploma program with the National Ballet School Teachers’ Training Program. This five year program allows students to initiate their studies at SFU or at the National Ballet School (NBS). The students who begin this program at SFU will spend three years at SFU and two years at NBS and receive a BFA degree and a National Ballet School Teachers’ Training diploma. Students who transfer to SFU after three years of study at NBS will complete two years at SFU and receive a Bachelor of General Studies degree and the NBS Teachers’ Training Diploma.

Dance Extended Minor

This program is intended primarily for students who wish to obtain a BA degree with a view to teaching dance in the public schools. It may be used in combination with another extended minor. The program is balanced with dance technique, composition and theory, and some work in a relevant art discipline other than dance.

Entry to FPA 122 is by audition/interview usually scheduled for early spring and late summer. Contact the general office to make an audition appointment.

Continuation in the dance extended minor will be contingent upon the successful completion of FPA 122, 123, 124 and 129 and the approval of the Dance Area. Interviews will be held at the end of the first year and approval will be based on the student’s potential, progress, academic record and suitability for the program.

Students are encouraged to plan their program in consultation with the School for the Contemporary Arts’ advisor.

Students without sufficient dance training to audition for program entry may register in FPA 120.

Lower Division Requirements

A minimum of 31 credit hours in dance must be completed including all of

FPA 111-3 Issues in the Fine and Performing Arts
FPA 122-4 Contemporary Dance I
FPA 123-4 Contemporary Dance II
FPA 124-3 Dance Improvisation
FPA 129-3 Fundamental Integration of Human Movement
FPA 220-4 Contemporary Dance II
FPA 221-4 Contemporary Dance IV
FPA 224-3 Dance Composition I
FPA 227-3 History of Dance: The 20th Century

plus one of

FPA 321-3 Issues in Dance
FPA 322-3 Ballet I
FPA 323-3 Ballet II
FPA 325-3 Special Project in Dance Composition
FPA 326-4 Repertory I
FPA 327-4 Repertory II
FPA 420-4 Contemporary Dance VII
FPA 421-4 Contemporary Dance VIII
FPA 425-4 Intensive Studies in Performance
FPA 427-3 Ballet III
FPA 428-3 Ballet IV

*other dance related courses may be substituted with permission of the school

plus one of

FPA 311-4 Interdisciplinary Studies in the Arts
FPA 313-5 Arts, Audience, Patronage, Institutions

plus three additional credit hours in an upper division FPA course outside of dance.

Upper Division Requirements

A minimum of 17 credit hours in dance must be completed including all of

FPA 320-4 Contemporary Dance V
FPA 321-4 Contemporary Dance VI
FPA 426-3 Dance/Movement Analysis

plus six credit hours minimum selected from

FPA 322-3 Ballet I
FPA 323-3 Ballet II
FPA 325-3 Special Project in Dance Composition
FPA 326-4 Repertory I
FPA 327-4 Repertory II
FPA 420-4 Contemporary Dance VII
FPA 421-4 Contemporary Dance VIII
FPA 425-4 Intensive Studies in Performance
FPA 427-3 Ballet III
FPA 428-3 Ballet IV

plus one of

FPA 311-4 Interdisciplinary Studies in the Arts
FPA 313-5 Arts, Audience, Patronage, Institutions

plus three additional credit hours in an upper division FPA course outside of dance.

Film Major Program

The intent of the BFA major in film is to provide a balanced program of creative, technical and analytical studies within the interdisciplinary setting of the School for the Contemporary Arts. Film and video production courses emphasize the creation of original work as well as the acquisition of technical skills. Film courses which familiarize students with the aesthetic and social issues surrounding contemporary film and video practice are an integral part of the curriculum.
Students augment their understanding of the components of film and video through interdisciplinary studies and projects. Directed study courses are available for upper division students wishing to work independently beyond regular course offerings.

**Entry to all first year film production courses required for the major or extended minor is by questionnaire and interview.** Contact the school in early January prior to your attendance at Simon Fraser University to request an information letter and questionnaire.

Film students who wish to complete the film major may apply for admission to the BFA major program after completing FPA 231, normally at the end of the second year of study. Approval will be based on the student's creative work and academic record in required lower division courses. The attention of students whose interest in film is related primarily to its historical, critical, or theoretical aspects, is directed to the art and culture studies major program, leading to a BA degree, and to the film and video studies minor program.

**Lower Division Requirements**
A minimum of 43 credit hours must be completed including the following.

- FPA 111-3 Issues in the Fine and Performing Arts
- FPA 130-4 Fundamentals of Film
- FPA 131-4 Filmmaking I
- FPA 136-3 The History and Aesthetics of Cinema I
- FPA 137-3 The History and Aesthetics of Cinema II
- FPA 230-5 Filmmaking II
- FPA 231-5 Filmmaking III
- FPA 232-3 The Techniques of Film
  *plus one of
  - FPA 236-3 Cinema in Canada
  - FPA 237-3 Selected Topics in Film and Video Studies**

**Upper Division Requirements**
A minimum of 31 credit hours must be completed including the following.

- three of
  - FPA 335-4 Introduction to Film Theory**
  - FPA 337-3 Intermediate Selected Topics in Film and Video Studies**
  - FPA 436-3 Advanced Seminar in Film and Video Studies***
  *with prior approval, students may substitute upper division courses devoted to a film or video topic to fulfill this requirement
**may be repeated under another topic

**Film Extended Minor**
This program is for students who wish to apply their broad range studies from other University programs to film and video production. Film has affinities with many disciplines within the social sciences and humanities, as well as business and communication. Students from other contemporary arts areas may develop specific skills such as composing for film, multimedia installation, or directing actors through a combination of a film extended minor in an appropriate area.

**Entry to all film production courses is by questionnaire and interview.** Contact the school by early January to request an information letter and questionnaire.

**Lower Division Requirements**
A minimum of 28 credit hours must be completed including all of

- FPA 111-3 Issues in the Fine and Performing Arts
- FPA 130-4 Fundamentals of Film
- FPA 131-4 Filmmaking I
  *plus two of
  - FPA 136-3 The History and Aesthetics of Cinema I
  - FPA 137-3 The History and Aesthetics of Cinema II
  - FPA 236-3 Cinema in Canada
  - FPA 237-3 Selected Topics in Film and Video Studies*
  *plus at least eight credit hours from among
  - FPA 230-5 Filmmaking II
  - FPA 231-5 Filmmaking III
  - FPA 232-3 Film Sound
  - FPA 233-2 The Techniques of Film
  - FPA 238-3 Screenwriting I
  - FPA 290-3 Video Production I
  plus three credit hours from another lower division FPA studio courses outside Film. Students may apply CMNS 258 toward this requirement.

**Film and Video Studies Minor**
This minor focuses on theoretical, analytical, historical and critical aspects of film and video.

**Lower Division Requirements**
A minimum of 12 credit hours must be completed including the following.

- FPA 136-3 The History and Aesthetics of Cinema I
- FPA 137-3 The History and Aesthetics of Cinema II
  *plus two of
  - FPA 236-3 Cinema in Canada
  - FPA 237-3 Selected Topics in Film and Video Studies*
  - FPA 238-3 Introduction to Screenwriting

**Upper Division Requirements**
A minimum of 17 credit hours must be completed including 12 credit hours from

- FPA 335-4 Introduction to Film Theory**
- FPA 337-3 Intermediate Selected Topics in Film and Video Studies*
- FPA 338-3 Advanced Screenwriting
- FPA 436-3 Advanced Seminar in Film and Video Studies*
  *plus one of
  - FPA 310-4 Interdisciplinary Methods
  - FPA 311-4 Interdisciplinary Studies in the Arts
  - FPA 312-3 Intermediate Seminar in Art and Culture
  - FPA 313-5 Arts, Audience, Patronage, Institutions
  - FPA 314-3 Readings in the History of Art and Culture
  - FPA 411-3 Interdisciplinary Studies in the Contemporary Arts
- FPA 412-4 Advanced Seminar in Art and Culture Studies
- FPA 414-3 Advanced Topic in the History of Art and Culture
- FPA 416-3 Practices in Art and Culture

*these courses may include studies in film and video analysis, national cinemas, genre, political cinema, etc. and may be repeated for credit when a different topic is offered.

**Note:** Courses devoted to film or video are occasionally offered by other departments. With prior permission, students may substitute one or more of these courses to fulfill requirements, up to a maximum of eight credit hours.

Students augment their understanding of the components of film and video through interdisciplinary studies and projects. Directed study courses are available for upper division students wishing to work independently beyond regular course offerings.
Music Major Program

The bachelor of fine arts – major in music is a flexible program that offers several options for the music student who wishes to pursue an interest in composition, electroacoustic music, world music or interdisciplinary collaboration. Complementary courses in music history, theory and criticism provide an integral balance to the in-depth studio nature of the program.

The program takes full advantage of the opportunities to experience and study other art forms that are provided in the School for the Contemporary Arts. Students are required to take studio courses in other art disciplines as well as interdisciplinary courses in history, theory and criticism.

Entry to specific courses required for the Music major is by interview, usually scheduled for early spring and late summer. Contact the general office to make an appointment.

The attention of students whose interest in music is related primarily to its historical, critical, or theoretical aspects, is directed to the art and culture studies major program, leading to a BA degree.

Lower Division Requirements

Students must complete a minimum of 39 credit hours including

- all of
  - FPA 111-3 Issues in the Fine and Performing Arts
  - FPA 140-3 Music in the 20th Century
  - FPA 145-3 Introduction to Music Composition and Theory
  - FPA 147-3 Introduction to Electroacoustic Music
  - FPA 240-3 Contemporary Music Performance I
  - FPA 244-3 Theory of Contemporary Music
  - plus four of
    - FPA 243-3 Gamelan I
    - FPA 245-3 Music Composition I
    - FPA 246-3 Music Composition II
    - FPA 247-3 Electroacoustic Music I
    - FPA 249-3 Selected Topics in Music I
    - CMNS 258-3 Introduction to Electroacoustic Communication
  - plus two FPA studio courses outside Music
  - plus one FPA theory or history course outside Music.

Upper Division Requirements

A minimum of 37 upper division credit hours must be completed including all of

- FPA 140-3 Music in the 20th Century
- FPA 145-3 Introduction to Music Composition and Theory
- FPA 147-3 Introduction to Electroacoustic Music
- plus five of
- FPA 240-3 Contemporary Music Performance I
- FPA 243-3 Gamelan I
- FPA 244-3 Theory of Contemporary Music
- FPA 245-3 Music Composition I
- FPA 246-3 Music Composition II
- FPA 247-3 Electroacoustic Music I
- FPA 249-3 Selected Topics in Music I
- plus one FPA lower division theory or history course outside music.

Lower Division Requirements for the Performance Stream

Entry to FPA 250, 252, 254 and to the major in theatre (performance stream) is by audition, usually scheduled for early spring and late summer. Contact the general office to make an appointment.

Students who wish to enrol in the theatre performance major program normally take FPA 150, 151, and 170, and are advised to take other courses required for the major prior to auditioning for entry to the program.

A minimum of 41 credit hours must be completed including all of
- FPA 129-3 Fundamental Integration of Human Movement
- FPA 150-3 Introduction to Acting I
- FPA 151-3 Introduction to Acting II
- FPA 170-3 Introduction to Production Technology
- FPA 250-3 Acting I
- FPA 251-3 Acting II
- FPA 252-3 Playmaking I
- FPA 253-3 Playmaking II
- FPA 254-2 Theatre Laboratory I
- FPA 255-3 Theatre Laboratory II
- FPA 257-3 Context of Theatre I
- plus one of
  - FPA 171-3 Stage and Production Management
  - FPA 270-3 Technical Theatre
  - plus two FPA studio courses other than theatre

Upper Division Requirements for the Performance Stream

A minimum of 33 credit hours must be completed including all of
- FPA 350-3 Acting III
- FPA 351-3 Acting IV
- FPA 354-2 Theatre Laboratory I
- FPA 355-2 Theatre Laboratory IV
- FPA 357-3 Context of Theatre II
- plus an additional 20 credit hours of upper division credit. Please note that no more than eight upper division credit hours from outside FPA may be used toward the major.

Lower Division Requirements for the Production and Design Stream

Entry to FPA 270 and/or 271 and to the major in theatre (production and design stream) is by interview, usually scheduled for early spring and late summer. Contact the general office to make an appointment.

Students who wish to enrol in the theatre production and design stream major normally take FPA 170, 171 and 150, and are advised to take other courses required for the major prior to interviewing for entry into the program.

Students complete a minimum of 33 credit hours including all of
- FPA 147-3 Introduction to Electroacoustic Music
- FPA 150-3 Introduction to Acting I
- FPA 170-3 Introduction to Production Technology
- FPA 171-3 Stage and Production Management
- FPA 257-3 Context of Theatre I
- FPA 270-3 Technical Theatre
- FPA 271-3 Stage Management Practice
- plus one of
  - FPA 120-3 Introduction to Contemporary Dance
  - FPA 124-3 Dance Improvisation
  - FPA 129-3 Fundamental Integration of Human Movement
  - FPA 226-3 Dancing in Cyberspace
Visual Art Major Program
The bachelor of fine arts – major in visual art prepares students to become practicing artists. A combination of broad-based practical studio courses in conjunction with theoretical and historical seminars allows students to understand their own production in relation to current developments in visual art and other disciplines. A strong emphasis is placed on developing an understanding of the position and responsibilities of the artist in contemporary society.

**Entry to the visual art major (BFA) program, after completion of FPA 111, 160, 161 and 168 in the first year, is determined by grades and portfolio assessment, usually scheduled at the end of the spring semester.** Contact the general office for further information.

Methods and Concepts courses are offered simultaneously as upper and lower division courses; with the exception of FPA 269/369, they may only be taken once for credit, either as a lower division course or an upper division course, but not both.

The attention of students whose interest in visual art is related primarily to its historical, critical, or theoretical aspects, is directed to the art and culture studies major program, leading to a BA degree.

**Lower Division Requirements**

**Upper Division Requirements**

*This course may be taken more than once for credit under a different topic. Topics may change every semester and include, but are not limited to, installation practices, performance practices, digital 2D practices, and time-based media practices. Contact the general office for further information.

Visual Art Extended Minor
This extended minor may be of interest to students who wish to obtain a BA degree by completing two extended minors. The program offers a balanced selection of studio, history and theory courses in the visual art area, giving students a good introduction to contemporary art issues and practices. Students may use this extended minor for the purpose of teaching in the schools.

**Entry to the Visual Art Extended Minor program, after completion of FPA 111, 160, 161 and 168 in the first year, is determined by grades and portfolio assessment, usually scheduled at the end of the spring semester.** Contact the general office for further information.

Methods and Concepts courses are offered simultaneously as upper and lower division courses; with the exception of FPA 269/369, they may only be taken once for credit, either as a lower division course or an upper division course, but not both.

**Lower Division Requirements**
A minimum of 30 credit hours must be completed including all of FPA 111-3 Issues in the Fine and Performing Arts FPA 160-3 Introductory Studio in Visual Art I FPA 161-3 Introductory Studio in Visual Art II FPA 167-3 Visual Art and Culture I FPA 168-3 Visual Art and Culture II FPA 260-3 Studio in Visual Art I FPA 261-3 Studio in Visual Art II plus additional upper division FPA courses to total at least 15 credit hours.

**Upper Division Requirements**

*This course may be taken more than once for credit under a different topic. Topics may change every semester and include, but are not limited to, installation practices, performance practices, digital 2D practices, and time-based media practices. Contact the general office for further information.

Simon Fraser University 2005 • 2006
Other Minor Program

Fine and Performing Arts Minor
The FPA minor program can accommodate a wide range of interests in the fine and performing arts, but some exposure to both the practical and the theoretical aspects of art is assured by the studio course requirement at the lower division and the seminar in art and culture studies at the upper division.

Lower Division Requirements
A minimum of 12 credit hours in FPA must be completed including one studio course.

Upper Division Requirements
A minimum of 17 credit hours in FPA must be completed including at least one of FPA 311 or 313.

Joint Major Program

Joint Major in Anthropology or Sociology, and Art and Culture Studies
These joint majors are interdisciplinary programs that link the study of contemporary arts with the social sciences. Students explore interrelationships between fine, performing and media arts, cultural criticism, intercultural relations, and social, economic or political processes. Alternatively, they may choose courses that pertain to one or two areas in particular.

Art and Culture Studies Lower Division Requirements
Students must complete 18 credit hours as follows.
one of
FPA 167-3 Visual Art and Culture I
FPA 168-3 Visual Art and Culture II
one of
FPA 136-3 History and Aesthetics of Cinema I
FPA 137-3 History and Aesthetics of Cinema II
plus
FPA 210-3 Artworks, Theories, Contexts

Additional Disciplinary History Courses
Students must complete at least six credit hours of lower division disciplinary history or theory courses from within the School for the Contemporary Arts.

Studio Courses
Students must complete three to six credit hours of lower division studio courses from within the School for the Contemporary Arts.

Note: For some studio courses, permission to register is selective and may be based on an audition or audition. Contact the school for more detail regarding specific studio courses.

Art and Culture Studies Upper Division Requirements
Students are required to complete 20 credit hours as follows.

Interdisciplinary Theory Core
Students must complete
FPA 310-4 Interdisciplinary Methods
plus a minimum of 16 credit hours chosen from
FPA 311-4 Interdisciplinary Studies in the Arts*
FPA 312-3 Intermediate Seminar in Art and Culture*
FPA 313-5 Arts, Audience, Patronage, Institutions*
FPA 314-3 Readings in the History of Art and Culture*
FPA 337-3 Intermediate Selected Topics in Film and Video Studies*
FPA 390-3 Video Production II
FPA 393-2 Techniques of Video
FPA 411-3 Interdisciplinary Studies in the Contemporary Arts*
FPA 412-4 Advanced Seminar in Art and Culture*
FPA 413-4 Advanced Topic in the History of Art and Culture*
FPA 416-3 Practices in Art and Culture*
FPA 436-3 Advanced Seminar in Film and Video Studies*

Note: Some courses listed have prerequisites beyond those that can be applied to the joint major program requirements.

"this course may be taken more than once for credit if the topic changes"

Anthropology Lower Division Requirements
Students complete 20 credit hours including all of
SA 101-1 Introduction to Anthropology (A)
SA 245-4 Cultures and Images (A)
SA 255-4 Introduction to Social Research (SA)
eight additional credit hours at the 200 division chosen from the following.

SA 201-4 Anthropology of Contemporary Life (A)
SA 203-4 Comparative Ethnic Relations (SA)
SA 218-4 Illness, Culture and Society (SA)
SA 263-4 Peasants, Proletarians and the Global Economy (A)
SA 286-4 Aboriginal Peoples and British Columbia: Introduction (A)
SA 293-4 Special Topics in Anthropology (A)
SA 294-4 Special Topics in Anthropology and Sociology*
WS 200-3 Women in Cross-Cultural Perspective

"highly recommended
"applicable only when the topic is anthropology"

Anthropology Upper Division Requirements
Students must complete 20 credit hours including both of
SA 301-4 Contemporary Ethnography (A)
SA 356-4 Ethnography and Qualitative Methods (SA)
and 12 additional credit hours chosen from
SA 303-4 Ethnic Conflict (SA)
SA 316-4 Tourism and Social Policy (SA)
SA 318-4 The Anthropology of Medicine (A)
SA 319-4 Culture, Ethnicity and Aging (SA)
SA 320-4 Population and Society (SA)
SA 323-4 Symbol, Myth and Meaning (A)
SA 332-4 The Archaeology of Childhood (A)
SA 340-4 Social Issues and Social Policy Analysis (SA)
SA 345-4 Issues in Canadian Ethnic Relations (SA)
SA 360-4 Special Topics in Sociology and Anthropology (SA)**
SA 363-4 Processes of Development and Underdevelopment (SA)
SA 364-4 Urban Communities and Cultures (SA)
SA 365-4 Selected Regional Areas (SA)
SA 371-4 The Environment and Society (SA)
SA 374-4 South Africa: Socio-Political Development (SA)
SA 386-4 Native Peoples and public Policy (SA)
SA 387-4 Canadian Native Peoples (SA)
SA 388-4 Comparative Studies of Minority Indigenous Peoples (SA)
SA 400-4 Canadian Ethnic Minorities (SA)
SA 402-4 The Practice of Anthropology (A)
SA 447-4 Selected Issues in Social Policy Analysis (SA)
SA 451-4 Issues in Anthropological Theory (A)
SA 455-4 Special Topics in Applied Social Research (SA)
SA 460-4 Special Topics in Sociology and Anthropology (SA)**
SA 463-4 Special Topics in Development Studies (SA)
SA 472-4 Anthropology and the Past (A)
SA 486-4 Aboriginal Peoples and British Columbia: Advanced Seminar (A)
SA 496-4 Directed Readings in Anthropology (A)

"highly recommended
"applicable only when the topic is sociology"

Anthropology Lower Division Requirements
Students complete 19 credit hours including all of
SA 150-4 Introduction to Sociology (S)
SA 250-4 Introduction to Sociological Theory (S)
SA 256-4 Introduction to Social Research (SA)
STAT 203-3 Introduction to Statistics for the Social Sciences
plus four credit hours chosen from
SA 202-4 Post-Industrial Societies (S)
SA 203-4 Comparative Ethnic Relations (SA)
SA 216-4 Sociology of Leisure (S)
SA 231-4 The Sociology of Domestic Life (S)
SA 260-4 Individual and Society (S)
SA 292-4 Special Topics in Sociology (S)
SA 294-4 Special Topics in Sociology and Anthropology (SA)**

"applicable only when the topic is sociology"

Sociology Upper Division Requirements
Students must complete 20 credit hours as follows.
both of
SA 350-4 Classical Sociological Thought
SA 355-4 Quantitative Methods
plus an additional 12 credit hours chosen from
CMNS 334-4 Cultural Policy*
SA 300-4 Canadian Social Structure (SA)
SA 303-4 Ethnic Conflicts (SA)
SA 304-4 Social Control (S)
SA 316-4 Tourism and Social Policy (SA)
SA 319-4 Culture, Ethnicity and Aging (SA)
SA 320-4 Population and Society (SA)
SA 321-4 Social Movements (S)
SA 322-4 Sociology of Religion (S)
SA 325-4 Political Sociology (S)
SA 326-4 Ecology and Social Thought (S)
SA 327-4 Sociology of Knowledge (S)
SA 333-4 Schooling and Society (S)
SA 335-4 Gender Relations and Social Issues (S)
SA 346-4 Social Issues and Social Policy Analysis (SA)**
SA 345-4 Issues in Canadian Ethnic Relations (SA)
SA 351-4 Classical Marxist Thought (SA)
SA 357-4 Survey Methods (SA)*
SA 360-4 Special Topics in Sociology and Anthropology (SA)**
SA 362-4 Society and the Changing Global Division of Labor (S)
SA 363-4 Processes of Development and Underdevelopment (SA)
SA 364-4 Urban Communities and Cultures (SA)
SA 365-4 Selected Regional Areas (SA)
SA 371-4 The Environment and Society (SA)
SA 374-4 South Africa: Socio-Political Development (SA)
SA 400-4 Canadian Ethnic Minorities (SA)
SA 416-4 Sociology of Art Forms (S)
SA 420-4 Sociology of Aging (SA)
SA 447-4 Selected Issues in Social Policy Analysis (SA)
SA 450-4 Advanced Sociological Theory (S)
SA 455-4 Special Topics in Applied Social Research (SA)
SA 460-4 Special Topics in Sociology and Anthropology (SA)**
SA 463-4 Special Topics in Development Studies (SA)
SA 497-4 Directed Readings in Sociology (S)

"highly recommended
"applicable only when the topic is sociology"

Praxis Centre for Screenwriters
Suite 3120, 515 West Hastings Street, Vancouver, BC, V6B 5K3, 604.268.7880 Tel, 604.268.7882 Fax, www.praxismil.com

Director
P. Gruben BA (Rice)
Praxis is a professional development workshop for screenwriters and filmmakers. Intensive non-credit workshops are held twice a year for writers whose feature film scripts have been chosen through a national competition. In addition, Praxis offers public seminars throughout the year and maintains a reference library of film scripts and other materials related to film production and studies.

School of Criminology

2630 Diamond Building, 604.291.3213 Tel, 604.291.1410 Fax, www.sfu.ca/criminology, ugradcrim@sfu.ca

Director
R.M. Gordon BA (La Trobe), MA (S Fraser), PhD (Br Col)

Professors Emeriti
K. Faith BA, PhD (Calif)
E.A. Fattah LLL (Cairo), MA, PhD (Montr), FRSCan
J. Brink FRCPC (Canada), FCPsych, BA (SA), MB, BCh

Professors
N.T. Boyd BA (WOnt), LLB, LLM (Law Soc Upper Canada)
P.L. Brantingham AB, JD (Col)
J. Lowman BA (Sheff), MA (York, Can), PhD (Br Col)
P.L. Brantingham AB (Col), MA (Fordham), MSP, PhD (Florida State)
J. Menzies BA (York, Can), MA, PhD (Br Col)
P.T. Polya BA, MA (Manit), PhD (Can)
M.A. Jackson BA (Calif), MA, PhD (Tor)
K. Davidson, Inspector OIC “E” Division, Behavioural Sciences Group
J. Burch BA (Qu), MA (Tor), PhD (Br Col)
P.R. Corrado BA (Mich), MA, PhD (Northwestern)
C.T. Griffiths BA, MA, PhD (Montana)
R. Loewen BA (Sheff), MA, PhD (Br Col)
S.N. Verdun-Jones BA, MA, LLD (Guelph)

Associate Professors
G.S. Anderson BSc (Man), MPM, PhD (S Fraser)
E.O. Boyanowski BA (WOnt), MS, PhD (Wis)
W. Chan BA (Car), MA (Sheff), PhD (Camb)
J.A. Osborne LLB (Edin), MA, PhD (Br Col)

Assistant Professors
G.J. Davies BA, MA (S Fraser), PhD (Rutgers)
E. Elliott BPE, BM (Ont), MS, PhD (S Fraser)
P. Lussier, BSc, MSc, PhD (Montr)
D. MacAlister LLB (Br Car), BA, MA (S Fraser)

Lecturers
J. Faubert BA, MA (Guelph), PhD (S Fraser)
N.A. Madu BA (S Fraser), MA, VIC, BC

Laboratory Instructors
M. Krpacic BA (S Fraser)

Adjunct Professors
J. Brink FRCPC (Canada), FCPsych, BA (SA), MB, BCh (Capetown)
D. Chappel BA, LLB (Tasmania), PhD (Camb)
K. Davidson, Inspector OIC “E” Division, Behavioural Sciences Group, RCMP
D. Gustafson BA (UVic), MA (Associated Mennonite Seminaries, Manitoba)
C. Reasons BA (Central Wash), LLB (Br Col), MA (Ohio), PhD (Wash State)
K. Rossmo BA (Sask), MA, PhD (S Fraser)
Judge B.D. Stuart BA (Bishop's), LLB (Qu), LLM (York, Can)

Associate Members
S. Duguid, Humanities
C. Yerbury, Continuing Studies
J. Whatley, Continuing Studies

Advisor
Ms. M. McIlroy, 2644 Diamond Building, 604.291.3645, mcilroy@sfu.ca

Criminology offers courses leading to a bachelor of arts to students interested in a comprehensive, interdisciplinary approach to criminology. The study of criminology attempts to unify all aspects of crime by an interdisciplinary and integrative approach. The curriculum assists students to acquire an in-depth understanding of the complexities of criminal, delinquent, and deviant behavior and of society’s reaction to crime and deviance. Students concurrently acquire a theoretical and practical knowledge of the criminal justice system and its components, and gain insight into the philosophy, sociology, and present state of criminal law.

A wide range of disciplines including psychology, sociology and anthropology, political science, business administration, economics, philosophy, computing science, and mathematics are integrated into criminology courses into a curriculum which covers the following areas.

Understanding Individuals, Society, the System and the Law
Understanding the individual in society
Understanding human behavior
Understanding the criminal justice system
Understanding criminal behavior
Understanding the law
Understanding specific criminological problems

Learning the Techniques
Research methods and techniques
Techniques of intervention
Techniques of management, administration and planning
Relating theory to practice
Field Work

This interdisciplinary program and the wide variety of criminology courses and other behavioral and social sciences integrated within it, allow students to pursue an interest in a different sector of applied criminology: crime prevention, corrections, criminal law reform and social reform.

Enrolment Limitations

Admission
The school limits admission to the upper division of its major, minor and honors programs. Entry into the major or minor in the School of Criminology will be on the basis of a formal application made to the school as soon as the student has completed the requirements, for admission to upper division effective the following term. Students are eligible to apply for entry to the major or minor program after successful completion of 60 credit hours, including the lower division group A and group B required courses. Students are eligible to apply for entry to the minor program after successful completion of 60 credit hours including CRIM 100 or 101 or 102 in addition to, CRIM 131 and 135. Students should make application to the school immediately after they have completed the above requirements.

Continuation in Major, Honors or Minor
To continue as a criminology major or minor, students must maintain a 2.25 CGPA. Students whose CGPA falls below 2.25 will not be allowed to register in this upper division CRIM courses including those offered through distance education. When it is restored to 2.25, students will be readmitted after review and approval of the director of undergraduate programs. For honors continuance, a CGPA of 3.00 must be maintained. Those with a lower CGPA will not be allowed to register in CRIM 499 and, therefore, cannot be allowed to complete the program.

Appeal Procedure
Applicants denied admission to a criminology major/honors/minor may appeal in writing to the school’s director. If that appeal results in a negative decision, a written appeal to the dean of the Faculty of Arts and Social Sciences may be submitted. Appeals will be granted only in very exceptional circumstances.

Registration Priority
Registration priority for limited enrolment upper division seminar courses in the school will be established on the basis of cumulative GPA.

Transfer Students
Students transferring to Simon Fraser University from a two-year college that has articulated the first 60 credit hours of study in criminology with the School of Criminology will be considered on the basis of their college cumulative GPA (recalculated on the basis of grades received in courses transferable to the University), as well as other relevant materials.

Major Program
Students in the general degree program must complete a total of 120 credit hours (see “General Information” on page 29 and the following requirements.)

Students majoring in criminology must obtain a minimum grade of C- in all required group A and group B courses.

Lower Division Requirements (normally the first 60 credit hours)
Students must complete 60 credit hours including the requirements set out below under Group A, Group B and general electives.

• eight courses from group A
• seven courses from group B
• an additional five courses of general electives

The Faculty of Arts and Social Sciences breadth requirements must be completed for graduation and the general electives should be considered for that purpose.

Students may not complete group B requirements other than those listed below unless permission is obtained from the school’s undergraduate curriculum committee prior to taking the course.

Group A Lower Division Requirements
Students are required to complete all of

CRIM 101-3 Introduction to Criminology
CRIM 103-3 Psychological Explanations of Criminal and Deviant Behavior
CRIM 104-3 Sociological Explanations of Criminal and Deviant Behavior
CRIM 131-3 Introduction to the Criminal Justice System — A Total System Approach
CRIM 135-3 Introduction to Canadian Law and Legal Institutions: A Criminal Justice Perspective
CRIM 220-3 Research Methods in Criminology
CRIM 230-3 Criminal Law

plus one of
CRIM 203-3 Historical Reaction to Crime and Deviance
CRIM 210-3 Law, Youth and Young Offenders
CRIM 213-3 Introduction to Women and Criminal Justice
CRIM 231-3 Introduction to the Judicial Process
CRIM 241-3 Introduction to Corrections
CRIM 251-3 Introduction to Policing
Group B Lower Division Requirements

Students are required to complete seven courses, including all of
PSYC 100-3 Introduction to Psychology I
PSYC 102-3 Introduction to Psychology II
SA 150-4 Introduction to Sociology

plus one of
POL 100-3 Introduction to Politics and Government
POL 151-3 The Administration of Justice

plus one of
PSYC 210-4 Data Analysis in Psychology
STAT 100-3 Chance and Data Analysis
STAT 101-3 Introduction to Statistics
STAT 203-3 Introduction to Statistics for Social Sciences*

*of the three statistics courses, STAT 203 is recommended for students in criminology.

plus one of
PHIL 001-3 Critical Thinking
PHIL 100-3 Knowledge and Reality
PHIL 110-3 Introduction to Logic and Reasoning
PHIL 120-3 Introduction to Moral Philosophy
PHIL 150-3 History of Philosophy I
PHIL 151-3 History of Philosophy II
PHIL 200-3 Introduction to Social and Political Philosophy
PHIL 244-3 Introduction to the Philosophy of Natural and Social Science
PHIL 280-3 Introduction to Existentialism

and at least one lower division course chosen from the following disciplines:

archaeology (ARCH)
business administration (BUS)
Canadian studies (CNS)
communication (CMNS)
computing science (CMPT)
economics (ECON and BUEC)
education (EDUC)
English (ENGL)
geography (GEOG)
history (HIST)
mathematics (MATH)
philosophy (PHIL)
political science (POL)
psychology (PSYC)
sociology and anthropology (SA)
statistics (STAT)

General Electives Lower Division Requirements

Students are required to complete the balance of the first 60 credit hours by choosing any other 100-200 level courses or the transfer equivalent thereof. Faculty of Arts and Social Sciences breadth requirements must be completed for graduation and general electives should be considered for that purpose.

Note: Declared criminology majors will normally complete all lower division group A and B requirements before proceeding to upper division. Students may proceed to upper division courses without having completed these lower division courses only with the express written approval of the criminology undergraduate curriculum and articulation committee.

Upper Division Requirement

Students must complete a minimum of 48 credit hours in courses as set out below.

Group A Upper Division Requirements

Students are required to complete a minimum of 36 credit hours including the following four courses.
CRIM 300-3 Current Theories and Perspectives in Criminology
CRIM 320-3 Quantitative Research Methods in Criminology
CRIM 321-3 Qualitative Research Methods in Criminology
CRIM 330-3 Criminal Procedure and Evidence

Plus a minimum of 24 credit hours from criminology upper division courses (excluding CRIM 301). Please see “Criminology CRIM” on page 357 for the listing of upper division criminology courses.

Group B Upper Division Requirements

An additional 12 required credit hours may be chosen from upper division courses in the following disciplines and/or from upper division criminology courses (excluding CRIM 301).

Note: Many upper division courses have prerequisites or registration restrictions, as shown in the Course Timetable and Exam Schedule. If in doubt about your eligibility to register in a non-criminology course, contact the advisor in the appropriate department well in advance of any attempt to register.

Archaeology (ARCH)
Business Administration (BUS)
Canadian Studies (CNS)
Communication (CMNS)
Computing Science (CMPT)
Economics (ECON and BUEC)
Education (EDUC)
English (ENGL)
Geography (GEOG)
Gerontology (GERO)
History (HIST)
Mathematics (MATH)
Philosophy (PHIL)
Political Science (POL)
Psychology (PSYC)
Sociology and Anthropology (SA)
Statistics (STAT)
Women's Studies (WS)

Additional Electives

The remaining credit hours to satisfy degree requirements may be selected at the student's discretion. Faculty of Arts and Social Sciences breadth requirements must be completed for graduation so general electives should be considered for that purpose.

Joint Major in Criminology and Canadian Studies

See “School of Criminology” on page 150.

Joint Major in Criminology and Psychology

Program Requirements

This program explores relationships between the study of criminology and psychology. Students should consult advisors in both departments.

Students must satisfy the admission requirements for both criminology and psychology major programs and have School of Criminology approval before being approved by the Department of Psychology. To continue in the joint major, students must maintain a 2.25 CGPA and cannot register in upper division criminology courses with a CGPA of less than 2.25. However, a student whose CGPA is between 2.00 and 2.25 may be eligible for a major in psychology.

Students who take CRIM 220 must obtain a Department of Psychology waiver of the PSYC 201 prerequisite for PSYC 210 and all 300/400 division PSYC courses, in advance of attempting to register for any of these courses. Students who take PSYC 201 must obtain from the criminology advisor a waiver of the CRIM 220 prerequisite for CRIM 320, in advance of attempting to register for this course.

Criminology Requirements

Group A Lower Division Requirements

Students must complete all of
CRIM 101-3 Introduction to Criminology
CRIM 103-3 Psychological Explanations of Criminal and Deviant Behavior
CRIM 104-3 Sociological Explanations of Criminal and Deviant Behavior

plus all of
CRIM 131-3 Introduction to the Criminal Justice System — A Total System Approach
CRIM 135-3 Introduction to Canadian Law and Legal Institutions: A Criminal Justice Perspective
CRIM 200-3 Criminal Law

plus one of
CRIM 203-3 Historical Reaction to Crime and Deviance
CRIM 210-3 Law, Youth, and Young Offenders
CRIM 213-3 Introduction to Women and Criminal Justice
CRIM 231-3 Introduction to the Judicial Process
CRIM 241-3 Introduction to Corrections
CRIM 251-3 Introduction to Policing

Group B Lower Division Requirements

SA 150-4 Introduction to Sociology

plus one of
POL 100-3 Introduction to Politics and Government
POL 151-3 The Administration of Justice

plus one of
PHIL 001-3 Critical Thinking
PHIL 100-3 Knowledge and Reality
PHIL 110-3 Introduction to Logic and Reasoning
PHIL 120-3 Introduction to Moral Philosophy
PHIL 150-3 History of Philosophy I
PHIL 151-3 History of Philosophy II
PHIL 220-3 Introduction to Social and Political Philosophy

PHIL 244-3 Introduction to the Philosophy of Natural and Social Science
PHIL 280-3 Introduction to Existentialism

Upper Division Requirements

All of
CRIM 300-3 Current Theories and Perspectives in Criminology
CRIM 320-3 Quantitative Research Methods in Criminology
CRIM 330-3 Criminal Procedure and Evidence

plus a minimum of 12 credit hours of upper division criminology group A courses (excluding CRIM 369 and 462) and six credit hours of upper division non-criminology (group B) courses other than psychology.

Psychology Requirements

Lower Division Requirements

All of
PSYC 100-3 Introduction to Psychology I
PSYC 102-3 Introduction to Psychology II
PSYC 207-3 Introduction to the History of Psychology
PSYC 210-4 Introduction to Data Analysis in Psychology

plus one of
CRIM 220-3 Research Methods in Criminology
PSYC 201-4 Introduction to Research Methods in Psychology

*Students must obtain a final course grade of C (2.0) or better in each of these courses.

plus one of
PSYC 221-3 Introduction to Cognitive Psychology
PSYC 280-3 Introduction to Biological Psychology

plus one of
PSYC 241-3 Introduction to Abnormal Psychology
Minor Program

Students who minor in criminology must complete all of CRIM 101-3 Introduction to Criminology, CRIM 131-3 Introduction to the Criminal Justice System — A Total System Approach, CRIM 135-3 Introduction to Canadian Law and Legal Institutions: A Criminal Justice Perspective and at least 18 other credit hours in criminology courses numbered 300 and above. A minimum C- grade in each of CRIM 100/101/102, 131 and 135 is also required.

Extended Minor Program

This program consists of the lower division requirements for a major and the upper division requirements for a minor. Certain other criteria may be set by individual departments and programs. A student must have their program approved by the advisor for the extended minor program.

Post Baccalaureate Diploma

Advisor: Ms. M. Mcllroy, 2644 Diamond Building, 604.291.3645, mcllroy@sfu.ca

This program is for students who hold a bachelor's degree in a discipline other than criminology to expand their knowledge of criminology through a recognized program. Students pursue individual interests in specific criminology areas. The program is available through distance education, at the Burnaby and Vancouver campuses.

For information about post baccalaureate diploma program general regulations, see “Post Baccalaureate Diploma Program” on page 30.

Program Requirements

- completion of lower level prerequisite courses CRIM 101, 131 and 135
- successful completion of an approved program comprised of 30 credit hours of third and fourth year courses
- of the 30 credit hours, a minimum of 15 must come from criminology courses numbered 300/400 and the remaining from any upper division on campus or distance education courses, or a combination of both
- minimum 2.5 GPA on courses applied toward the diploma
- completion of the diploma within five years of admission to the program

For information, contact the advisor in criminology.

Application Deadlines

Written application for program admission must be received by the advisor no later than February 1 (summer semester admission) or April 30 (fall semester admission) or September 30 (spring semester admission). Students must make separate application for admission to the University, in accordance with University deadlines for the appropriate semester. Applications received by the School of Criminology after the deadline will be considered only if resources permit following consideration of those applications received on time.

Certificate Programs

Advisor: Ms. M. Mcllroy, 2644 Diamond Building, 604.291.3645

The University offers two criminology certificate programs: the general certificate in criminology and the advanced certificate in criminology. Both certificates are primarily directed toward undergraduates and criminal justice professionals, but are open to all. Those who hold a bachelor's degree (in any field of study) should refer to the post baccalaureate diploma in criminology.

The certificates are not designed to satisfy specific employment credentials. Rather, the general certificate provides a basic theoretical and descriptive criminology foundation, and the advanced certificate program provides an in-depth understanding of criminology through more intensive study.

These certificate program courses are offered through the Centre for Distance Education to assist students in understanding the complexities of illegal behaviours, as well as society's reactions.

Admission Requirements

Students applying for admission must meet undergraduate admission deadlines as set out in this Calendar. Application forms, accompanied by official documents, must be submitted to Student Services. In addition to applying for University admission, all new students must apply in writing to the advisor in the School of Criminology for admission to the certificate programs.

General Certificate

Program Requirements

- successful completion of 60 credit hours, including the required courses as listed below
- a minimum grade of C- in each of the courses required for the certificate
- the majority of criminology courses must be completed through the Centre for Distance Education
- completion of the certificate within five years of admission to the program

Required Courses

CRIM 101-3 Introduction to Criminology
CRIM 103-3 Psychological Explanations of Criminal and Deviant Behavior
CRIM 104-3 Sociological Explanations of Criminal and Deviant Behavior
plus all of
CRIM 131-3 Introduction to the Criminal Justice System — A Total System Approach
CRIM 135-3 Introduction to Canadian Law and Legal Institutions: A Criminal Justice Perspective
CRIM 220-3 Research Methods in Criminology
CRIM 230-3 Criminal Law
PHIL 110-3 Introduction to Logic and Reasoning
POL 151-3 The Administration of Justice
PSYC 102-3 Introduction to Psychology I
PSYC 103-3 Introduction to Psychology II
SA 150-4 Introduction to Sociology
STAT 101-3 Introduction to Statistics

The remaining credit hours must be selected from specific groups of optional courses as follows.

- one course must be chosen from group A
- two courses must be chosen from group B
- the balance may be satisfied with courses chosen from groups A, B or C

Optional Courses

Group A

Students may choose from any of the remaining 100 and 200 level criminology distance education courses, such as
CRIM 213-3 Introduction to Women and Criminal Justice
CRIM 241-3 Introduction to Corrections
CRIM 251-3 Introduction to Policing
**Group B**

Students may choose from any 100 and 200 level distance education courses from the group B disciplines, such as:

- **archaeology (ARCH)**
- **business administration (BUS)**
- **Canadian studies (CNS)**
- **communication (CMNS)**
- **computing science (CMPT)**
- **economics (ECON and BUEC)**
- **education (EDUC)**
- **English (ENGL)**
- **geography (GEOG)**
- **history (HIST)**
- **mathematics (MATH)**
- **philosophy (PHIL)**
- **political science (POL)**
- **psychology (PSYC)**
- **sociology and anthropology (SA)**
- **statistics (STAT)**
- **women’s studies (WS)**

**Group C**

Any lower division courses offered at Simon Fraser University or which transfer from another post-secondary institution (including the Open Learning Agency) to the equivalent of 100-200 level Simon Fraser University courses.

**Note:** Students enrolled at Simon Fraser University must obtain prior permission of Student Services by completing the letter of permission form.

**Advanced Certificate**

**Program Requirements**

- Completion of SFU’s general criminology certificate, or two years (equivalent to 60 SFU credit hours) of accredited course work at a university or community college, or completion of a criminology certificate or diploma from a BC regional college prior to entering the advanced certificate program.

**Note:** Students without a criminology certificate or diploma must take CRIM 101, 131 and 135, and obtain at least C+ in each.

- Successful completion of 18 credit hours from criminology courses numbered 300/400 (refer to the group A criminology courses in the criminology major program section).

- The majority of courses must be completed through distance education (consult the Centre for Distance Education for a list of criminology distance education courses).

- Completion of the certificate within five years of admission to the program.

**Co-operative Education Program**

**Program Requirements**

This program is offered to qualified students who want practical criminology experience. The program entails planned semesters of study and employment in the area of the student’s choice. To be admitted, students must have completed 30 credit hours, including all of CRIM 101-3 Introduction to Criminology CRIM 103-3 Psychological Explanations of Criminal and Deviant Behavior CRIM 104-3 Sociological Explanations of Criminal and Deviant Behavior CRIM 131-3 Introduction to the Criminal Justice System — A Total System Approach CRIM 135-3 Introduction to Canadian Law and Legal Institutions: A Criminal Justice Perspective CRIM 220-3 Research Methods in Criminology plus one of PSYC 210-4 Data Analysis in Psychology

STAT 100-3 Chance and Data Analysis

STAT 101-3 Introduction to Statistics

STAT 203-3 Introduction to Statistics for the Social Sciences

and have a 2.75 minimum CGPA. Transfer students must have completed at least 15 credit hours at SFU. Please see “Co-operative Education” on page 240. Arrangements for work semesters are made through the Faculty of Arts and Social Sciences co-op co-ordinator, who should be consulted at least one semester in advance.

**Department of Economics**

3602 Diamond Building, 604.291.3508 Tel, 604.291.5944 Fax, www.sfu.ca/economics

**Chair**

G. Dow BA (Amherst), MPP, PhD (Mich)

**Professors Emeriti**

- L.A. Boland BS, (Bradley), MS, PhD (Ill), FRSC
- J.F. Chanit BA (Br Col), PhD (Duke)
- P. Copes BA, MA (Br Col), PhD (LSE), DMIISc (Royal Roads), DrPhilos (Tromsø), FANSFRF
- H.G. Grubel BA (Rutgers), PhD (Yale)
- J.P. Herzen BS, PhD (Calif)
- R.A. Holmes BA, MA (Sask), PhD (Indiana)
- M.H. Khan BSc, MA (Sindh), MSoScSc (Inst Soc Stud), PhD (Wageningen)
- J.L. Knetsch, BS, MS (Michigan State), MPA, PhD (Harv)
- R.G. Lipsy BA (Br Col), MA (Tor), PhD (LSE), FRScCan
- M.A. Lebowitz BS (NY), MS (Wis)
- D.R. Maki BA (Minn), PhD (Iowa State)
- J.M. Munro BCom (Br Col), MBA, DBA (Indiana)
- K. Strand BA (Wash State), MS, PhD (Wis)
- Telus Endowed University Professor
- R.G. Harris BA (Qu), PhD (Br Col), FRScCan

**Professors**

- D.W. Allen BA, MA (S Fraser), PhD (Wash)
- J. Arlovtic BA (Sarajevo), MA, PhD (Chic)
- J.W. Dean BSc (Car), MA, PhD (Harv)
- D.J. DeVoretz BA, MA, PhD (Wis)
- G. Dow BA (Amherst), MPP, PhD (Mich)
- S.T. Easton AB (Oberlin), AM, PhD (Chic)
- R. Genyßc BSc (METU), MA (Guelph), PhD (Houston)
- R.G. Harris BA (Qu), PhD (Br Col), FRSC
- R.A. Jones BSc MA (Br Col), MA, PhD (Brown)
- P.E. Kennedy BA (Qu), PhD (Wis)
- G.M. Myers BA (Qu), MA, PhD (McM)
- N.D. Oliever BA (Col), MA (S Fraser), PhD (Br Col)
- C.G. Reed BA, MA, PhD (Wash)
- A.J. Robson BSc (Well), PhD (MIT), Canada Research Chair
- N. Schmitt Licence (Lausanne), MA, PhD (Harv)
- Z.A. Spindler BA (Well), PhD (Mich State)
- Associate Professors
- D. Andolfatto BBA, MA, PhD (Br Col)
- J. Arifovic BA, MA (Zhejiang), MA, PhD (Br Col)
- M. Rekkas BA (York, Can), MSc, MA, PhD (Tor)
- S.D. Woodcock BA (S Fraser), MA (Br Col), MA, PhD (Cornell)
- J. Xu BA, MA (Zhejiang), MA, PhD (Br Col)
- Senior Lecturer
- D.J. Cox BA (Wont), MA (Alta), PhD (Qu)

**Advisors**

Ms. S. King, 3663 Diamond Building, 604.291.4543/3508, sking@sfu.ca

Mrs. G. Seifert, 3657 Diamond Building, 604.291.4571/3508, seifert@sfu.ca

*Joint appointment with business administration*

The Department of Economics offers honors and major programs leading to the BA degree. The department also offers joint honors and joint major programs in co-operation with the Faculty of Business Administration and the Departments of Political Science, Geography (environmental specialty) and Latin American Studies. A minor program is offered for students who are majoring or taking honors programs in disciplines other than economics.

**Admission Information**

Major, honors and minor program admission (including joint honors and joint majors) is limited. Entry is on the basis of a formal department application. To be considered, students must have completed lower division required courses with at least a C- grade.

On recommendation of the department and the Office of the Dean of Arts and Social Sciences, the University establishes a yearly quota — the number of students to be admitted into major, honors, and minor programs. This quota is based on projected available course space and department resources. The department announces the minimum CGPA below which students will not normally be considered.

Students apply for admission to the major, minor or honors programs after completing 45 credit hours and will be selected on the basis of CGPA and performance in required courses.

Applications for entry should be filed with the departmental advisor. Students provide the appropriate documentation. Those whose applications are not approved may appeal to the department’s undergraduate program chair. Students not accepted upon initial application may reapply.

**Non-Majors Access to Courses**

**Lower Division**

Access to lower division economics and BUEC courses is available to all students meeting the prerequisites.

**Upper Division ECON Courses**

Non-majors who meet the current CGPA entrance requirements have the same access as approved students in Economics programs to upper division economics courses.

**Upper Division BUEC courses**

Non-majors who meet the current CGPA entrance requirements have the same access as approved students in Economics and Business programs to upper division BUEC courses.

**Transfer Students**

Students transferring to Simon Fraser University will be considered on the basis of their entrance CGPA (calculated for grades received in courses transferable to the University). Transfer students must be admitted to the University before they may apply for admission to the department’s major, honors or minor programs. Students who meet these requirements will be admitted to the program under a provisional status and will retain the provisional status.
until 15 credit hours have been completed at Simon Fraser University. To continue, the CGPA for these 15 credit hours must equal or exceed the CGPA entrance requirement for non-transfer students.

Exchange and Visiting Students
Exchange and visiting students must obtain approval from the Department of Economics prior to registering in upper division ECON/BUEC courses.

Course Information
For a course to be accepted as fulfilling a prerequisite, or for a required course to be accepted in a student’s Economics program, a grade of C- or higher must be obtained.

BUEC courses are offered jointly by the Faculty of Business Administration and the Department of Economics. They may count for credit in either Business Administration or Economics programs, but not for both. A student may not receive credit for both BUEC courses and (former) ECON/COMM courses which have the same number.

Prerequisites for any course may be waived for individual students by the department. In order for a course to be accepted as fulfilling a prerequisite, or for a required course to be accepted in a student’s program in Economics (i.e., major, joint major, honors, joint honors or minor), a student must have obtained a grade of C- or higher.

Requirements for the BA Degree
All majors and honors students must meet BA degree requirements for either the honors or general program as described in the Faculty of Arts and Social Sciences section. Students should fulfill Faculty requirements early in their programs and obtain broadly based backgrounds before entering upper division courses. Major and honors students must complete lower division requirements in the first 60 credit hours prior to program acceptance (including joint programs).

For a course to be accepted as fulfilling a prerequisite, or for a required course to be accepted in an Economics program (i.e., major, joint major, honors, joint honors, minor) students must have a grade of C- or higher.

Major Program
Lower Division Requirements
Students must complete the following courses with at least a C- prior to admission to the major program.

BUEC 232-4 Data and Decisions I
ECON 103-3 Principles of Microeconomics
ECON 105-3 Principles of Macroeconomics
MATH 157-3 Calculus for the Social Sciences I (or equivalent)

Two 200 division ECON or BUEC courses (in addition to BUEC 232)

Students who earn at least an A- in both ECON 103 and 105 are exempt from the requirement of two 200 division ECON or BUEC courses. These students should see Early Access to Upper Division Courses below for additional program information.

Plus:

one 000, 100 or 200 level English or philosophy course
and one 100 or 200 level history or political science course
and one 100 or 200 level sociology/anthropology or psychology course
and one 100 or 200 level biological sciences, chemistry or physics course

Upper Division Requirements
Normally, majors will include 45 credit hours of upper division credit in their last 60 credit hours of work toward the degree.

At least 30 credit hours of upper division credit in economics is required, including

BUEC 333-4 Statistical Analysis of Economic Data
ECON 301-4 Microeconomic Theory I: Competitive Behavior
ECON 302-4 Microeconomic Theory II: Strategic Behavior
ECON 305-5 Intermediate Macroeconomic Theory

and at least one 400 division ECON or BUEC course (excluding ECON 402, 403, 431 and 435, BUEC 433 and 485).

Early Access to Upper Division Courses
Students normally cannot enter ECON upper division courses during the first 60 credit hours, but the following exceptions are permitted.

Students who earn a grade of A- or better in ECON 103 and 105 may register for ECON 301 and 305, and all courses for which they have satisfied the prerequisites, once they have completed 30 credit hours.

Students who earn a grade of A- or better in BUEC 232 or STAT 270 may register for BUEC 333 once they have completed 30 credit hours.

These upper division courses will count towards a Department of Economics and Simon Fraser University upper division requirements. See individual course descriptions for access information.

Group Requirements
To meet the requirements for the major program, students must include at least one of the following, with a grade of C- or higher.

ECON 102-3 The World Economy
ECON 110-3 Foundations of Economic Ideas
ECON 206-3 History of Economic Thought
ECON 250-3 Economic Development in the Pre-industrial Period
ECON 309-5 Introduction to Marxian Economics
ECON 353-4 Economic History of Canada
ECON 355-4 Economic Development
ECON 395-5 Comparative Economic Systems
ECON 404-3 Honors Seminar in Methodology of the Social Sciences
ECON 407-3 Seminar in Marxian Economics
ECON 409-3 Seminar in Economic Thought
ECON 450-3 Seminar in Quantitative Economic History
ECON 451-3 Seminar in European Economic History
ECON 455-4 Economic Development

Joint Major in Business Administration and Economics

Lower Division Requirements
Requirements are the same as for the economics major and business administration major.

Upper Division Requirements
Students must complete at least 29 credit hours of upper division credit in business administration or BUEC including the core courses with the following exception: BUS 207 and 303 are waived.

BUEC 333, which must be taken, will count as upper division economics hours rather than upper division business administration hours.

• three courses beyond the core must be completed within the requirements of a single concentration • at least two 400 division BUS or BUEC courses excluding practicum courses and BUS 478. These courses may be within the area of concentration.

plus at least 25 credit hours of upper division credit in BUEC** or economics including

BUEC 333-4 Statistical Analysis of Economic Data
ECON 301-4 Microeconomic Theory I: Competitive Behavior
ECON 305-5 Intermediate Macroeconomic Theory and at least one 400 division ECON or BUEC course (excluding ECON 431, 435, BUEC 433 and 485)

**BUEC courses may count only once as business administration or economics credit.

Group Requirements
Students must include at least one course from the economics groups requirements. For information, see “Group Requirements” on page 164.

Joint Major in Economics and Political Science
For requirements, see “Joint Major in Political Science and Economics” on page 188.

Joint Major in Geography and Economics – Environmental Specialty
For requirements, see “Joint Major in Geography and Economics – Environmental Specialty” on page 173.

Joint Major in Latin American Studies and Economics
See “Joint Major Programs” on page 180.

Honors Program
In addition to the lower division courses for the economics major, students must receive credit for at least 50 upper division credit hours in economics including the following.

BUEC 333-4 Statistical Analysis of Economic Data
ECON 301-4 Microeconomic Theory I: Competitive Behavior
ECON 302-4 Microeconomic Theory II: Strategic Behavior
ECON 305-5 Intermediate Macroeconomic Theory
ECON 331-5 Introduction to Mathematical Economics
ECON 435-5 Econometric Methods
ECON 499-6 Honors Seminar in Economics and at least two of the following options

ECON 402-3 Advanced Microeconomic Theory
ECON 403-3 Advanced Macroeconomic Theory

Two 400 level ECON courses (excluding ECON 402, 403, 431, 435, BUEC 433 and 485)

Group Requirements
Students must also include at least one course from the economics groups requirements. For information, see “Group Requirements” on page 164 and are responsible for ensuring they have also fulfilled all requirements for an honors degree set up by the Faculty of Arts and Social Sciences.

Joint Honors in Business Administration and Economics

Lower Division Requirements
Students must satisfy the lower division requirements for a joint major in business administration and economics.
Upper Division Requirements
At least 35 upper division business administration credit hours including the core courses with the exception of BUEC 333, which is counted as economics upper division hours rather than business administration upper division hours. See “Core Courses” on page 202.
and
an area of concentration
and
at least three 400 division business administration courses* (excluding practicum courses and BUS 478)
plus
at least 32 credit hours of upper division credit in economics or BUEC
including
BUEC 331-4 Statistical Analysis of Economic Data
ECON 301-4 Microeconomics I: Competitive Behavior
ECON 305-5 Intermediate Macroeconomics
ECON 311-5 Introduction to Mathematical Economics
ECON 402-3 Advanced Topics in Microeconomics
ECON 403-3 Advanced Topics in Macroeconomics
ECON 435-5 Quantitative Methods in Economics
ECON 499-6 Honors Seminar in Economics
*these courses may be within the areas of concentration

Group Requirements
Students must include at least one course from the economics group requirements. For details, see “Group Requirements” on page 164.

Minor Program
Lower Division Requirements
A minimum C- grade in all of the required courses listed below is required.
ECON 103-3 Principles of Microeconomics
ECON 104-3 Principles of Macroeconomics
two 200 division ECON or BUEC courses (excluding BUEC 232)
Upper Division Requirements
At least 15 upper division credit hours in economics or BUEC courses, taken following the completion of 60 credit hours are required. A maximum of eight ECON upper division credit hours from another institution can be applied to the minor in economics.

Co-operative Education
This program, for qualified students who wish to acquire practical experience in economics, entails planned semesters of study and employment in the student’s choice of area.
To be eligible for admission, students must have completed 30 credit hours including ECON 103 (or 200) and ECON 105 (or 205). At least 12 of these must be completed at Simon Fraser University with a minimum CGPA of 2.75.
Arrangements for work semesters are made through the Faculty of Arts and Social Sciences co-op co-ordinator at least one semester in advance. See “Co-operative Education” on page 240 for further details.

Department of English
6129 Academic Quadrangle, 604.291.3136 Tel, 604.291.5737 Fax, www.sfu.ca/english

Chair
T. Grieve BA, MA (S Fraser), PhD (Johns H)

Professors Emeriti
S.A. Black BA, MA (Calif State), PhD (Wash)
R.F. Blaser BA, MA, MLS (Calif)
G. Bowering BA, MA (Br Col)
F.H. Candelaria BA (Texas), PhD (Missouri)
J.R. Curtis BA (Yale), MA (Mich), PhD (Cornell)
P. Delany BCom (McG), AM (Sta), MA, PhD (Calif), FRSL, FRScan
S. Djwa BEd, PhD (Br Col), FRScan
G.R. Elliott BA, MA (Br Col), AM (Harv)
E.F. Harden AB (Prim), AM, PhD (Harv)
R.N. Maud AB, PhD (Harv)
J. Mills BA (Br Col), MA (Sta), MTS (Br Col)
M. Page MA (Cambi), DPSA (Oxf), MA (McMo), PhD (Cali)
F. A. Rudrum BA (Lond), PhD (Nott)
M. Steig BA (Reed), MA, PhD (Wash)
J. Zaslove BA (Case W Reserve), PhD (Wash)*

Professors
R.M. Coe BA (CUNY), MA (Utah), PhD (Cali)
S. Delany BA (Wellesley), MA, PhD (Calif), PhD (Col)
C. Gerson BA (S Fraser), MA (Dal), PhD (Br Col)
R.A. Miki BA (Manit), MA (S Fraser), PhD (Br Col)
D. Stouck BA (McM), MA (Tor)
J. Sturrock BA, MA (Br Col), PhD (Br Col)

Associate Professors
C.M. Banerjee BA, MA (Delhi), PhD (Kent State)
P. Budra BA, MA, PhD (Tor)
L. Davis BA (Sask), MA, PhD (Cali)
H. DeRoo BA (McM), MA (Car), PhD (Lond)
M.A. Gillies BA (Alta), MPhil, DPhil (Oxf)
G. Grieve BA, MA (S Fraser), PhD (Johns H)
A. Higgins BA (Conn), MA (McG), MA, Mass, MA, MPhil, PhD (Yale)
E.A. Schellenberg BEd, BA (Winn), MA, PhD (Ott)
J. P.M. St. Pierre BA (Br Col), MA, PhD (Syd)

Assistant Professors
S. Brook BA (Ontag), PhD (Duke)
D. Charandy BA, MA, Car, PhD (York, Can)
C. Colligan BA (Vict, BC), MA, PhD (Qu)
S. Collins BA (Vic, BC), PhD (S Fraser)
J. Derksen BA (Vic, BC), MA, PhD (Calg)
P. Dickinson BA (Tor), MA, PhD (Br Col)
J. Fleming BA (Br Col), MA, Tor, MA, MPhil, PhD (Col)
M. Levy BA, MA (Tor), PhD (Calif)
M. Linley BA (Winn), MA, PhD (Qu)
S. McColl BA (Qu), MA (Br Col), PhD (York)
D. Symons BA (Colorado), MA, PhD (Roch)
S. Zwagerman BA (Calif), MA (Sonoma), PhD (S Calif)

Senior Lecturers
N. Didicher BA (Guelph), MA, PhD (Qu)
R. Ramsey BA, MA (Br Col), PhD (Tor)
W. Strachan BA (McG), MA (Mich), PhD (S Fraser)
M. Valiquette BA, MA (S Fraser)

Lecturers
A. Hungerford BA, MA (S Fraser)
M. Sawatsky BA, MA (S Fraser)

Advisors
Ms. B. Thorburn, 6133 Academic Quadrangle, 604.291.4835
Ms. H. Newcombe, 6137 Academic Quadrangle, 604.291.3371
F. A. Rudrum BA, MA (Br Col), PhD (Harv)
The associate chair and other faculty are available to give advice about the Department of English. Enquire at the departmental office. Students planning to enter the honors program are particularly encouraged to consult with departmental advisors.
Course outlines for all courses vary each semester. Check at the Department of English general office.

Major Program
Lower Division Requirements
Normally, an English major, before proceeding to upper division English courses, shall obtain credit or standing for two of
ENGL 103-3 Introduction to Fiction
ENGL 102-3 Introduction to Poetry
ENGL 103-3 Introduction to Drama
ENGL 104-3 Introduction to Prose Genres
ENGL 105-3 Introduction to Issues in Literature and Culture
ENGL 199-3 Introduction to University Writing and both of
ENGL 204-3 Medieval and Renaissance Literature
ENGL 205-3 Seventeenth and Eighteenth Century Literatures in English
and two of
ENGL 206-3 19th Century Literatures in English
ENGL 207-3 20th Century Literatures in English
ENGL 210-3 Advanced University Writing
ENGL 212-3 Introduction to the Study of Language
ENGL 214-3 Introduction to the Study of Rhetoric
ENGL 216-3 Introduction to Critical Approaches to Literature
Any one, but not more than one, of ENGL 101, 102, 103, 104, 105 and 199 may be replaced by any three unspecified transfer credits in English. Similarly any one, but not more than one, of ENGL 206, 207, 210, 212, 214 and 216 may be replaced by any three unspecified 200 level transfer credits in English.
However, to fulfill the requirements for the major in English, students may only use one of ENGL 199, 210 or a college or university writing course that SFU recognizes as a transferable English credit [e.g. ENGL 1 (3) – Writing].
A student who enters the University with 18 transfer credits in English will be deemed to have met the department’s lower division requirements for a major in English provided those credits include any one of ENGL 101, 102, 103, 104, 105 or 199; one of ENGL 204 or 205; and one of ENGL 206, 207, 210, 212, 214 or 216. However, students may only use one of ENGL 199, 210 or a college or university writing course that SFU recognizes as a transferable English credit [e.g. ENGL 1 (3) – Writing] towards the 18 credits. Students declaring a major in English and found deficient in the department’s lower division requirements must make up the deficiency. Such make up normally shall be attempted before the student takes upper division courses in English, but the department may permit it to be attempted concurrently or to be deferred in order to avoid timetable conflicts or for other good cause.

Upper Division Requirements
An English major must obtain 32 hours in upper division English courses, one of which must come from within the series ENGL 300 to 310; one must come from within the series ENGL 311 to 322; one must come from within the series ENGL 354 to 360; and the remainder may come from anywhere within the series ENGL 300 to 466. All of these courses may be taken in any order. Exceptionally, and only with the permission of the department, other English courses of equivalent content may be substituted for those required in the series 300 to 310, 311 to 322, and 354 to 360. With the permission of the department, up to eight credit hours derived from courses on literature given by other departments may be substituted for up to eight hours in upper division English courses.

Honors Program
This program is intended for those with a special interest in English literature and who wish to pursue studies beyond the course work required for the
major. The program requires the study of theory and criticism in ENGL 364 and 366 and, with the honors essay, concentrated independent research and writing on a topic of the student's choice.

Students proposing to enter honors English should take the same lower division English courses as English majors. On completion, students may apply for honors program admission. A GPA of 3.3 in all English courses taken at Simon Fraser University is required for acceptance and continuance in the program but does not in itself guarantee either.

Normally, a student in honors English must obtain 52 credit hours in upper division English courses, one of which must be from within the series ENGL 300 to 306; one from within the series ENGL 308 to 313; one from within the series 314 to 322; one from within the series 354 to 360; four must be ENGL 364, 366, 494 and 496; and the remainder may come from within the series ENGL 300 to 446. Exceptionally, and only with department permission, other English courses of equivalent content may substitute for those required in the series 300 to 306; 308 to 313; 314 to 322; and 354 to 360. With department permission, up to eight credit hours derived from literature courses given by other departments may be substituted for up to eight credit hours in upper division English courses. No courses from other departments may be substituted for the honors courses ENGL 494 and 496. A 'B' grade or higher must be achieved in the honors graduating essay (ENGL 496).

Minor Program

A student must obtain credit or standing in any two of ENGL 101-3 Introduction to Fiction
ENGL 102-3 Introduction to Poetry
ENGL 103-3 Introduction to Drama
ENGL 104-3 Introduction to Prose Genres
ENGL 105-3 Introduction to Issues in Literature and Culture
ENGL 199-3 Introduction to University Writing

Students must also obtain credit or standing in two of the following courses, one of which must be ENGL 204 or 205.

ENGL 204-3 Medieval and Renaissance Literature
ENGL 205-3 17th and 18th Century Literatures in English
ENGL 206-3 19th Century Literatures in English
ENGL 207-3 20th Century Literatures in English
ENGL 210-3 Advanced University Writing
ENGL 213-3 Introduction to the Study of Language
ENGL 214-3 Introduction to the Study of Rhetoric
ENGL 216-3 Introduction to Critical Approaches to Literature

Any one but not more than one of ENGL 101, 102, 103, 104, 105 and 199 may be replaced by any three unspecified transfer credits in English. Similarly any one, but not more than one, of ENGL 206, 207, 210, 212, 214 and 216 may be replaced by any three unspecified 200 level transfer credits in English. However, to fulfill the requirements for the minor in English, students may only use one of ENGL 199, 210 or a college or university writing course that SFU recognizes as transferable English credit [e.g. ENGL (3) – Writing].

Students must also obtain 16 credits in upper division English courses, of which one must be from the series ENGL 300 to 322. No courses from other departments may be substituted for the English courses which make up the minor.

Languages Other Than English

Most graduate schools require some proficiency in one or two languages other than English. Those who contemplate graduate studies in this field are advised to include language courses other than English in their programs.

Joint Major in English and Canadian Studies
See "Joint Major Programs" on page 150 for program information.

Joint Major in English and French Literatures
See "Joint Major in English and French Literatures" on page 169 for program information.

Joint Major in English and Humanities
See "Joint Major in English and Humanities" on page 177 for program information.

Joint Major in English and Women's Studies
See "Joint Major in English and Women's Studies" on page 197 for program information.

Extended Minor Program

An extended general minor consists of the lower division requirements for a major and the upper division requirements for a minor. Approval by the Department of English advisor is required.

Co-operative Education Program

This program, for students who wish to acquire work experience in areas related to English studies, entails planned semesters of study and employment in an area of the student's choice.

To be admitted, students must have completed 30 credit hours with a minimum CGPA of 3.0. Prior to admission, students must have completed five English courses (15 credit hours) including the lower division requirements for a minor English. College transfer students must complete at least 15 credit hours at Simon Fraser University before becoming eligible for admission to the co-operative education program. They also must satisfy the requirements shown above, or the equivalent.

Transfer students who have participated in co-operative education programs elsewhere may be credited with the semester(s) already taken. The applicability of such semesters depends on the evaluation.

Arrangements for the work semesters are made through the Faculty of Arts and Social Sciences co-operative education co-ordinators.

To continue in the program, students must maintain a minimum CGPA of 3.0 in their academic course work.

Interested students should contact the Department of English for further information. Also, see “Co-operative Education” on page 240.

First Nations Studies Program

6188 Academic Quadrangle, 604.291.4774 Tel, 604.291.4989 Fax, www.sfu.ca/fns

**Minor Program**

The minor program offers courses in the study of traditional and contemporary issues involving the aboriginal peoples of North America and Canada in particular. Designed for both First Nations students and non-Native students, its focus is on traditional cultures, languages, indigenous knowledge and histories of First Nations, as well as such issues as Indian-White relations, the development of federal and provincial policy towards Native peoples, aboriginal rights and title questions, issues of economic development and self-government and gender and intergenerational issues. The objective of the minor is to present and examine critically the above issues, taking into account the perspectives of aboriginal peoples. It will expose students to research methods pertinent to past, present and future issues affecting aboriginal peoples. In this respect, it is especially relevant for First Nations students who wish to put knowledge of Native issues and research skills to practice in serving their communities and nations.

This program may be taken in conjunction with any major or honors bachelor’s degree, or with a bachelor of general studies degree. It is expected that First Nations studies courses will be taught by faculty with appointments in First Nations or joint appointments in First Nations and other disciplines.

Lower Division Requirements

At least nine lower division credit hours are required including

FNST 101-3 The Cultures, Languages and Origins of Canada’s First Peoples
FNST 201-3 Canadian Aboriginal Peoples’ Perspectives on History
and at least one course from
ARCH 200-3 Special Topics in World Prehistory (when topic is Ancient Peoples of British Columbia)
ARCH 253-3 The Prehistory of Canada
BISC 272-3 Special Topics in Biology (when topic is Native Ethnobotany)
HIST 201-3 The History of Western Canada
LING 231-3 Introduction to a First Nations Language I
LING 233-3 Introduction to a First Nations Language II
LING 260-3 Language, Culture, and Society (when topic appropriate)
SA 286-4 Aboriginal Peoples and British Columbia:
Undergraduate

Program Requirements

• successful completion of 30 credit hours, of which 21 are earned by completing six required courses. The remaining nine credit hours are selected from the specified list of optional courses.
• completion of a practicum, where the student can work in and historic past, and to acquire fundamental skills in Native studies research.
• cooperation with the Faculty of Arts and Social Sciences departments and other faculties offering Native studies.

Co-operative Education

In conjunction with other Faculty of Arts and Social Sciences departments and other faculties offering co-operative education, eligible students wishing to undertake a First Nations studies minor may apply to co-op for work placements in native organizations or with employers in the private, public and non-profit sectors.

Certificate in Native Studies

This program provides a unique opportunity to explore the history and prehistory, culture, language, and contemporary situation of Canadian native peoples, and to acquire basic research skills in Native studies. Particular emphasis is on the study of Native people in the interior of British Columbia. Offered through Simon Fraser University in Kamloops, all program components can be taken at the University Centre in Kamloops, and normally require five full time study semesters. It can be completed as a two year program, or be part of a BA degree program.

Certificate is subject to continued funding from external sources.

Admission Requirements

Normally, Simon Fraser University admission requirements apply. Students may be admitted under regular or special entry categories. Application assistance and advice is available at the offices in Kamloops.

Program Requirements

• completion of a practicum, where the student can work in and historic past, and to acquire fundamental skills in Native studies research.
• cooperation with the Faculty of Arts and Social Sciences departments and other faculties offering Native studies.

Co-operative Education

In conjunction with other Faculty of Arts and Social Sciences departments and other faculties offering co-operative education, eligible students wishing to undertake a First Nations studies minor may apply to co-op for work placements in native organizations or with employers in the private, public and non-profit sectors.

Certificate in Native Studies

This program provides a unique opportunity to explore the history and prehistory, culture, language, and contemporary situation of Canadian native peoples, and to acquire basic research skills in Native studies. Particular emphasis is on the study of Native people in the interior of British Columbia. Offered through Simon Fraser University in Kamloops, all program components can be taken at the University Centre in Kamloops, and normally require five full time study semesters. It can be completed as a two year program, or be part of a BA degree program.

Certificate is subject to continued funding from external sources.

Admission Requirements

Normally, Simon Fraser University admission requirements apply. Students may be admitted under regular or special entry categories. Application assistance and advice is available at the offices in Kamloops.

Program Requirements

• successful completion of 30 credit hours, of which 21 are earned by completing six required courses. The remaining nine credit hours are selected from the specified list of optional courses.
• completion of a practicum, where the student can apply research skills in a supervised setting.
• minimum grade point average of 2.0 calculated on all courses applied to the certificate. Duplicate courses are counted only once.

Upper Division Archaeology

Requirements

Students are required to complete at least 24 credit hours of upper division archaeology including:

- ARCH 472-5 Archaeological Theory
- ARCH 472-5 Archaeological Theory

and at least 14 credit hours from the list below:

ARCH 386-3 Archaeological Resource Management
- ARCH 381-3 Prehistoric and Indigenous Art

ARCH 336-3 Special Topics in Prehistoric and Indigenous Art

and one of

ARCH 336-3 Special Topics in Prehistoric and Indigenous Art

Co-operative Education

In conjunction with other Faculty of Arts and Social Sciences departments and other faculties offering co-operative education, eligible students wishing to undertake a First Nations studies minor may apply to co-op for work placements in native organizations or with employers in the private, public and non-profit sectors.

Certificate in Native Studies

This program provides a unique opportunity to explore the history and prehistory, culture, language, and contemporary situation of Canadian native peoples, and to acquire basic research skills in Native studies. Particular emphasis is on the study of Native people in the interior of British Columbia. Offered through Simon Fraser University in Kamloops, all program components can be taken at the University Centre in Kamloops, and normally require five full time study semesters. It can be completed as a two year program, or be part of a BA degree program.

Certificate is subject to continued funding from external sources.

Admission Requirements

Normally, Simon Fraser University admission requirements apply. Students may be admitted under regular or special entry categories. Application assistance and advice is available at the offices in Kamloops.

Program Requirements

• successful completion of 30 credit hours, of which 21 are earned by completing six required courses. The remaining nine credit hours are selected from the specified list of optional courses.
• completion of a practicum, where the student can apply research skills in a supervised setting.
• minimum grade point average of 2.0 calculated on all courses applied to the certificate. Duplicate courses are counted only once.

Upper Division Archaeology

Requirements

Students are required to complete at least 24 credit hours of upper division archaeology including:

- ARCH 372-5 Material Culture Analysis
- ARCH 471-5 Archaeological Theory

and at least 14 credit hours from the list below:

ARCH 386-3 Archaeological Resource Management
- ARCH 381-3 Prehistoric and Indigenous Art

ARCH 336-3 Special Topics in Prehistoric and Indigenous Art

and one of

ARCH 336-3 Special Topics in Prehistoric and Indigenous Art

Co-operative Education

In conjunction with other Faculty of Arts and Social Sciences departments and other faculties offering co-operative education, eligible students wishing to undertake a First Nations studies minor may apply to co-op for work placements in native organizations or with employers in the private, public and non-profit sectors.

Certificate in Native Studies

This program provides a unique opportunity to explore the history and prehistory, culture, language, and contemporary situation of Canadian native peoples, and to acquire basic research skills in Native studies. Particular emphasis is on the study of Native people in the interior of British Columbia. Offered through Simon Fraser University in Kamloops, all program components can be taken at the University Centre in Kamloops, and normally require five full time study semesters. It can be completed as a two year program, or be part of a BA degree program.

Certificate is subject to continued funding from external sources.

Admission Requirements

Normally, Simon Fraser University admission requirements apply. Students may be admitted under regular or special entry categories. Application assistance and advice is available at the offices in Kamloops.

Program Requirements

• successful completion of 30 credit hours, of which 21 are earned by completing six required courses. The remaining nine credit hours are selected from the specified list of optional courses.
• completion of a practicum, where the student can apply research skills in a supervised setting.
• minimum grade point average of 2.0 calculated on all courses applied to the certificate. Duplicate courses are counted only once.

Undergraduate

Program Requirements

• successful completion of 30 credit hours, of which 21 are earned by completing six required courses. The remaining nine credit hours are selected from the specified list of optional courses.
• completion of a practicum, where the student can apply research skills in a supervised setting.
• minimum grade point average of 2.0 calculated on all courses applied to the certificate. Duplicate courses are counted only once.

Upper Division Archaeology

Requirements

Students are required to complete at least 24 credit hours of upper division archaeology including:

- ARCH 372-5 Material Culture Analysis
- ARCH 471-5 Archaeological Theory

and at least 14 credit hours from the list below:

ARCH 386-3 Archaeological Resource Management
- ARCH 381-3 Prehistoric and Indigenous Art

ARCH 336-3 Special Topics in Prehistoric and Indigenous Art

and one of

ARCH 336-3 Special Topics in Prehistoric and Indigenous Art

Co-operative Education

In conjunction with other Faculty of Arts and Social Sciences departments and other faculties offering co-operative education, eligible students wishing to undertake a First Nations studies minor may apply to co-op for work placements in native organizations or with employers in the private, public and non-profit sectors.

Certificate in Native Studies

This program provides a unique opportunity to explore the history and prehistory, culture, language, and contemporary situation of Canadian native peoples, and to acquire basic research skills in Native studies. Particular emphasis is on the study of Native people in the interior of British Columbia. Offered through Simon Fraser University in Kamloops, all program components can be taken at the University Centre in Kamloops, and normally require five full time study semesters. It can be completed as a two year program, or be part of a BA degree program.

Certificate is subject to continued funding from external sources.

Admission Requirements

Normally, Simon Fraser University admission requirements apply. Students may be admitted under regular or special entry categories. Application assistance and advice is available at the offices in Kamloops.

Program Requirements

• successful completion of 30 credit hours, of which 21 are earned by completing six required courses. The remaining nine credit hours are selected from the specified list of optional courses.
• completion of a practicum, where the student can apply research skills in a supervised setting.
• minimum grade point average of 2.0 calculated on all courses applied to the certificate. Duplicate courses are counted only once.

Upper Division Archaeology

Requirements

Students are required to complete at least 24 credit hours of upper division archaeology including:

- ARCH 372-5 Material Culture Analysis
- ARCH 471-5 Archaeological Theory

and at least 14 credit hours from the list below:

ARCH 386-3 Archaeological Resource Management
- ARCH 381-3 Prehistoric and Indigenous Art

ARCH 336-3 Special Topics in Prehistoric and Indigenous Art

and one of

ARCH 336-3 Special Topics in Prehistoric and Indigenous Art

Co-operative Education

In conjunction with other Faculty of Arts and Social Sciences departments and other faculties offering co-operative education, eligible students wishing to undertake a First Nations studies minor may apply to co-op for work placements in native organizations or with employers in the private, public and non-profit sectors.

Certificate in Native Studies

This program provides a unique opportunity to explore the history and prehistory, culture, language, and contemporary situation of Canadian native peoples, and to acquire basic research skills in Native studies. Particular emphasis is on the study of Native people in the interior of British Columbia. Offered through Simon Fraser University in Kamloops, all program components can be taken at the University Centre in Kamloops, and normally require five full time study semesters. It can be completed as a two year program, or be part of a BA degree program.

Certificate is subject to continued funding from external sources.

Admission Requirements

Normally, Simon Fraser University admission requirements apply. Students may be admitted under regular or special entry categories. Application assistance and advice is available at the offices in Kamloops.

Program Requirements

• successful completion of 30 credit hours, of which 21 are earned by completing six required courses. The remaining nine credit hours are selected from the specified list of optional courses.
• completion of a practicum, where the student can apply research skills in a supervised setting.
• minimum grade point average of 2.0 calculated on all courses applied to the certificate. Duplicate courses are counted only once.
• completion of the certificate normally within five years of program admission.

Core Courses
ARCH 273-3 Archaeology of the New World
HIST 201-3 The History of Western Canada
LING 130-3 Practical Phonetics
SA 255-4 Introduction to Social Research
SA 286-4 Aboriginal Peoples and British Columbia: Introduction and one of
SA 101-4 Introduction to Anthropology
SA 150-4 Introduction to Sociology

Optional Courses
ARCH 200-3 Special Topics in World Prehistory
ARCH 332-3 Special Topics in Archaeology I
ARCH 333-3 Special Topics in Archaeology II
ARCH 336-3 Special Topics in Prehistoric and Indigenous Art
ARCH 337-3 Native Cultures of North America
BISC 272-3 Special Topics in Biology
BISC 372-3 Special Topics in Biology
CRIM 419-3 Indigenous Peoples, Crime, and Criminal Justice
FNST 101-3 The Cultures, Languages and Origins of Canada’s First Peoples
FNST 201-3 Canadian Aboriginal Peoples’ Perspectives on History
FNST 301-3 Issues in Applied First Nations Studies Research
FNST 401-3 Aboriginal Rights and Government Relations
FNST 402-3 The Discourse of Native Peoples
HIST 326-4 History of Aboriginal Peoples of North America since 1850
LING 100-3 Communication and Language
LING 231-3 Introduction to an Amerindian Language I
LING 232-3 Introduction to a First Nations Language II
LING 260-3 Language, Culture and Society
SA 100-4 Perspectives on Canadian Society
SA 201-4 Anthropology of Contemporary Life
SA 292-4 Special Topics in Sociology
SA 293-4 Special Topics in Anthropology
SA 386-4 Native Peoples and Public Policy
SA 387-4 Canadian Native Peoples
SA 388-4 Comparative Studies of Minority Indigenous Peoples
SA 396-4 Selected Regional Areas
WS 200-3 Women in Cross-Cultural Perspective

*when topic is appropriate

The program’s practicum component can be fulfilled by selecting one of three options. Some courses within each option have prerequisites; accordingly, students should plan their programs in advance.

Option 1
SA 141 is required. This is the first semester of the co-operative education program in sociology and anthropology. The employment situation must be acceptable to the Native Studies research program.

Option 2
At least five credit hours of a field school in archaeology, involving survey and excavation of a native heritage site are required.

Option 3
SA 360 is required, which permits a faculty member to supervise an independent field research project acceptable to the Native Studies research certificate.

Note: Some courses taken at the Burnaby or Vancouver campuses may count towards the certificate, subject to certificate steering committee approval. A three course maximum (totaling not more than 10 credit hours) of comparable content and level from an approved college or university may be transferred toward program requirements, subject to University transfer credit regulations, and subject to certificate steering committee approval. Credits applied to this certificate may also be applied to major or minor programs or to a bachelor’s degree under normal regulations governing those programs, but may not be applied to another SFU certificate or diploma.

Department of French
Chair
P.M. Wrenn BA, MA, PhD (Tor)
Professor Emeritus
G. Merler BA (Br Col), MA, PhD (Laval)
Professors
R. Davidson BA, MA, PhD (McG)
M.C. Faquenoy LééL, DrDronC (Paris), Chev Palmes
Acad France, FRScAn
J. Viswanathan LééL (Liéé), MA (III), DSééL (Liéé)
Associate Professors
R. Canac-Marquis BA, MA (UQAM), PhD (Mass)
S. Steele BA, MA (Br Col), PhD (Tor)
P.M. Wrenn BA, MA, PhD (Tor)
Assistant Professors
L. Bonenfant BA, MA (Montr), PhD (Wolv)
C. Guibault BA, MA (Laval), PhD (Alta)
Senior Lecturers
C.N. Luu-Nguyen BÉéD (Saigon), MA (Monterey Inst Intl Studies)
C. Trépanier BA, MA (Laval)
Lecturer
L. Bruneau BA (Qu), MÉéD (S Fraser)
Advisor
M. R. Gouléé, 8108A Robert C. Brown Hall, 604.291.4505, gouléé@sfu.ca
The Department of French offers honors, major and extended minor programs encompassing French language, literature and linguistics. In addition, joint major programs are available in English and French literatures, in French, history and political science, and in French and humanities. A certificate program in French language proficiency is also offered for those who wish to enhance their knowledge of French for cultural, professional or employment purposes.

Initial Course Selection
Native French speakers, or those who received secondary education entirely within a French-speaking community will not normally be admitted to a French language course numbered 100 to 300 inclusive (except FREN 199 and 299).

French Language Placement Test
Students fitting into the following categories need not take the placement test but should register in the course indicated below.

• BC grade 12 French completed within the last three years who received a final grade of A: register in FREN 211
• BC grade 12 French completed (irrespective of grade) within the last three years and who have subsequently spent at least five weeks in a francophone environment: register in FREN 211
• BC grade 12 French completed within the last three years who do not meet either of the above two conditions: register in FREN 210
• Students who have completed grade 11 French within the last three years and have taken no more French since: register in FREN 122
• Fewer than three years of French taken in high school and no other French: register in FREN 121
• No French at all: register in FREN 120
• High school taken in a francophone environment including the following.

Course Challenge
Up to 12 credit hours of lower division French courses may be challenged by students receiving advanced placement. Courses open to challenge are: FREN 210, 211 or 212, 221 or 222. Students may challenge lower level language courses only when registered in one of FREN 211 (or 212), 221, 222, and 301. Challenge of language courses lower than the one actually registered in may be initiated by filling out and signing a course challenge form, obtainable from the French general office. The challenge must be approved by the department and submitted to Student Services prior to the tenth day of classes. Successful completion (with a grade of at least C) of the language course actually taken automatically adds the challenge credit to the student’s transcript. Please see “Course Challenge” on page 46.

Honors, Major, Extended Minor Programs
To be approved in a program, a student must have successfully completed (i.e. obtained a minimum grade of 2.0 or better in each of) the following courses or equivalents: FREN 210, 211 or 212, 221, 222, 230 or 240 and 270. Students who place in FREN 301 in the placement test will complete only FREN 230/240 and FREN 270 prior to acceptance in the program.

Lower Division Requirements
all of
FREN 210-3 Intermediate French I*
FREN 211-3 Intermediate French II* (or 212)
FREN 221-3 French Writing I*
FREN 222-3 French Writing II*
FREN 270-3 Introduction to French Linguistics I
one of
FREN 293-3 Introduction to French-Canadian Literature
FREN 240-3 Introduction to French Literature: Modern French Literature

*exemption is gained by successful completion of a more advanced French language course. Lower division language courses may be challenged (see above).

Upper Division Requirements
Major
FREN 301-3 Advanced French Composition
FREN 360-4 Intermediate French Literature
FREN 370-4 Introduction to French Linguistics II
A further 21 credit hours of French, to be chosen from among the remaining courses at the 300 and 400 division, must be completed.

**Note:** A minimum of 12 of the remaining 21 credit hours must be from 400 division French courses.

**Honors**
- FREN 301-3 Advanced French Composition
- FREN 360-4 Intermediate French Literature
- FREN 370-4 Introduction to French Linguistics II

A further 39 credit hours of French, to be chosen from among the remaining courses at the 300 and 400 division, must be completed.

**Note:** A minimum of 24 of the remaining 39 credit hours must be from 400 division French courses, including the following which should be taken during the last semesters of study.
- FREN 491-3 Readings in French Linguistics and/or Literary Criticism
- FREN 492-3 Honors Essay

In addition, the honors student must acquire proficiency (i.e. the equivalent of two semesters) in another language in addition to English and French.

**Extended Minor**
Students must complete
- FREN 301-3 Advanced French Composition I and one of
- FREN 360-4 Intermediate French Literature
- FREN 370-4 Introduction to French Linguistics II

A further nine credit hours of French, to be chosen from among the remaining courses at the 300 and 400 division, must be completed.

**French Language Cohort Program in Public Administration and Community Services**

**Extended Minor**
Students must complete
- FREN 301-3 Advanced French Composition and one of
- FREN 425-3 Topics in the Varieties of French
- FREN 452-3 Topics in French Cultures

A further nine credit hours of French, to be chosen from among the remaining courses at the 300 and 400 division, must be completed. (FREN 360 and/or 370 may be taken in partial fulfillment of this requirement.)

For further information about this program, its requirements and alternatives, see "Political Science Major, French Extended Minor Program Requirements" on page 187.

### Courses in French

Courses are offered in the following fields.

#### French Language
- FREN 120-3 French for Beginners
- FREN 121-3 Introductory French I
- FREN 122-3 Introductory French II
- FREN 199-3 Writing French I: Spelling and Grammar*
- FREN 210-3 Intermediate French I
- FREN 211-3 Intermediate French II
- FREN 212-3 French for Immersion Program Students
- FREN 215-3 Intermediate French Language: Oral Practice
- FREN 217-3 French Pronunciation
- FREN 221-3 French Writing I
- FREN 222-3 French Writing II
- FREN 225-3 Topics in French Language
- FREN 299-3 Writing French II: Intermediate Composition*
- FREN 300-3 Advanced French: Oral Practice
- FREN 301-3 Advanced French Composition
- FREN 304-3 Advanced French Grammar
- FREN 307-3 French Vocabulary

*restricted entry to these distance education courses

#### French Linguistics
- FREN 301, 304 and 307 represent the formal culmination (but not the end) of the student’s training in French language use. FREN 270 and 370 represent the bridge between this knowledge of French (i.e. ability to use) and a knowledge about French (i.e. how to approach, analyse and describe various linguistic aspects of the French language). These latter concerns form the central objectives of the 400 division French linguistics courses. Topics courses may be taken more than once for credit, provided that the content is different each time.

- Linguistic Theories
- Evolution of French
- French Dialects
- French Applied Linguistics
- French 416-3 French Applied Linguistics

#### French Literature

**200 Division Courses:** FREN 240 and 230 introduce students to basic concepts and methods of literary analysis as well as the sociocultural background of a few short modern French and French Canadian works of fiction, drama and poetry. They also aim to improve language competence: all lectures, class discussions and assignments are in French. FREN 230 or 240 are prerequisites for FREN 360.

**300 Division:** FREN 360 continues the introduction to the textual analysis of literary texts (fiction, drama and poetry) offered in 240 and 230. The historical background of the works selected from the Middle Ages to the 19th century is also discussed. FREN 360 is a prerequisite for all 400 division French literature courses.

**400 Division:** These courses study specific literary movements or genres through various critical approaches: thematic or structural. The emphasis is on close textual analysis rather than literary history.

- **400 Division Courses on Literary Movements and Periods**
  - FREN 461-3 French Medieval Literature
  - FREN 462-3 French Renaissance Literature
  - FREN 463-3 Literature of the Seventeenth Century
  - FREN 465-3 Literature of the Eighteenth Century
  - FREN 467-3 Romanticism
  - FREN 470-3 Realism to Naturalism
  - FREN 476-3 Interdisciplinary Approaches to French Studies

- **400 Division Courses on Genres**
  - FREN 430-3 The French-Canadian Novel and Theatre
  - FREN 472-3 The Contemporary Theatre
  - FREN 474-3 French Poetry
  - FREN 475-3 The Contemporary Novel

#### French Linguistics/Literature

The following courses are for students who, once they have acquired a sufficient background in linguistics and literary criticism, wish to explore the relationship between the two disciplines.

- FREN 410-3 French Stylistics
- FREN 480-2 Seminar I
- FREN 491-3 Readings in French Linguistics and/or Literary Criticism
- FREN 492-3 Honors Essay

#### French Civilization and Cultures

- FREN 330-3 Francophone World
- FREN 452-3 Topics in French Cultures

In addition, two courses are available to students who do not wish to specialize in French. These are taught in English.

- FREN 198-3 French for Reading Knowledge I
- FREN 342-4 Literature in Translation from the Francophone World

### Joint Major in English and French Literatures

The joint major is an interdepartmental program, usually within a BA, designed for students who are interested in exploring the many close relationships between English and French literatures.

**Advisors**
- Ms. R. Gould, Department of French, 8108A Robert C. Brown Hall, 604.291.4505
- Dr. J. Viswanathan, Department of French, 604.291.4823
- Dr. M. Harris, Department of English, 604.291.3127
- Ms. B. Thornburn, Department of English, 6133 Academic Quadrangle, 604.291.4835

### Lower Division Courses

The same lower division course prerequisites as they appear for both English and French majors must be fulfilled.

#### French (a total of 15 credit hours)

- FREN 210-3 Intermediate French I
- FREN 211-3 Intermediate French II
- FREN 221-3 French Writing I
- FREN 222-3 French Writing II

(or exemption from all of FREN 210, 211, 221, 222)

#### French 230-3 Introduction to French-Canadian Literature

**Recommended**

- FREN 270-3 Introduction to French Linguistics I

### English

Students must complete the lower division requirements of the English major program.

#### Upper Division Courses

Students must complete 22 upper division hours in French and 20 upper division hours in English to achieve a specialization in literary studies as well as a selection of complementary courses as follows.

#### French

- FREN 301-3 Advanced French Composition
- FREN 360-4 Intermediate French Literature
- 7 credit hours

  - plus one of
  - FREN 300-3 Advanced French: Oral Practice
  - FREN 304-3 Advanced French Grammar
  - FREN 307-3 French Vocabulary
  - FREN 330-3 Francophone World

- plus 12 credit hours from the 400 level French Literature courses, selected according to the guidelines for course selection (see below).

The following courses are recommended if the student is interested in the linguistic analysis of literary texts.
Undergraduate

FREN 370-4 Introduction to French Linguistics II
FREN 410-3 French Stylistics

English
Students must complete 20 hours in upper division English courses, one of which must come from within the series ENGL 300-322. Courses should be selected according to guidelines (see below). The following are recommended if the student is interested in critical theory.
ENGL 364-4 History and Principles of Literary Criticism
ENGL 366-4 Studies in Critical Approaches to Literature

Joint majors (or prospective) in English and French literatures must plan their program in consultation with the program faculty advisors and consult the Guidelines for Course Selection available from each department.

Joint Major in French, History, and Politics

Steering Committee
S. Steele, French
L. Dobuzinskis, Political Science
(to be announced), History

Advisors
Ms. R. Gould, Department of French, 810A Robert C. Brown Hall, 604.291.4505, gould@sfu.ca
Mrs. T. Wright BA (S Fraser), Department of History, 6026 Academic Quadrangle, 604.291.4429
Mrs. C. Sauro, Department of Political Science, 6025 Academic Quadrangle, 604.291.3446

This program concentrates on languages, literature, history and politics of France and French-speaking peoples of Canada and the world. It prepares for careers in teaching, journalism, archival work, civil and diplomatic services and is offered by the Departments of French, History and Political Science. It is organized into three main themes: the French-speaking peoples of Canada, of France and Europe, and the French speaking peoples of the world. Students are not confined to any one theme; they may take any combination of courses within the program. The only requirement is that there must be some demonstrable French content in the course.

The relevance of courses to the program is frequently obvious, e.g., courses dealing directly with France, French Canada, and the French language, but in cases where there is doubt as to sufficient French content in a course, the student should consult the steering committee representative in the appropriate department and review the Guidelines for Course Selection (contained in the information brochure relating to the joint major) which lists sample courses suitable for the program. The program is intended to be broad in nature: the emphasis is on the role played in the world by French language, literature, history and politics; hence the courses selected may represent a variety of interests and fields.

Courses offered by the Canadian studies program which might be of interest to many students.

Upper Division Requirements
The following are required for a total of 48 credit hours.
16 credit hours of history
16 credit hours of political science
16 credit hours of French (FREN 301, 360 or 370 and nine credits of 400 level courses)

History
Students must take 12-15 credit hours of lower division history and at least 16 hours of upper division history. Courses may be chosen in consultation with the Department of political science. The program steering committee and after reviewing the Guidelines for Course Selection, which offers a list of sample courses suitable for the program. Such choices must fit with the thematic criteria of the joint major to the satisfaction of the steering committee.

Political Science
Students must take 12-15 lower division credit hours and at least 16 credit hours of upper division political science. Students may choose courses in consultation with the departmental assistant of political science in consultation with the Department of Political Science on the program Steering Committee after reviewing the Guidelines for Course Selection. It is emphasized that such choices must fit in with the thematic criteria of the joint major to the satisfaction of the steering committee.

French
Students must acquire an appropriate degree of proficiency in both oral and written French. In order to achieve this, a certain number of French language courses are required. Exemption from one or more lower division French courses can be obtained by gaining advanced placement through a placement test administered by the Department of French. The course challenge procedure may also be used to fulfill lower division language requirements in part or in full.

Lower Division
FREN 210-3 Intermediate French I (or exemption)
FREN 211-3 Intermediate French II (or exemption)
FREN 221-3 French Writing I (or exemption)
FREN 222-3 French Writing II (or exemption)
one of
FREN 230-3 Introduction to French-Canadian Literature
FREN 240-3 Introduction to French Literature: Modern French Literature
FREN 270-3 Introduction to French Linguistics I
Suggested
FREN 215-3 French Language: Oral Practice

Upper Division
FREN 301-3 Advanced French Composition
one of
FREN 360-4 Intermediate French Literature
FREN 370-4 Introduction to French Linguistics II

Note: Students wishing to supplement this joint major specialization with greater competence in oral and written French may take FREN 300 or 330 and FREN 304 in addition to the above requirements. FREN 330 is highly recommended.
At least nine hours must be at the 400 level. Students may choose courses in consultation with the Department of French departmental assistant or the representative of the Department of French on the program steering committee and after reviewing the Guidelines for Course Selection.

Joint Major in French and Humanities
See “Department of Humanities” on page 177.

Post Baccalaureate Diploma in French and Education
The Department of French and the Faculty of Education jointly offer this post baccalaureate diploma comprising a set of organized courses for practising or future French teachers. This program includes courses directly related to the pedagogy of French as a second language as well as courses enhancing previous French language competence, or knowledge of French literature or linguistics.

Admission Requirements
Students must seek admission or readmission to the University and, once admitted, must separately apply to the Department of French advisor for diploma program admission. Qualifications for application to the program include the following.
- The completion of a recognized bachelor’s degree with a minimum graduation grade point average of 2.0 from institutions outside the province.
- University course work undertaken subsequent to the bachelor’s degree will also be considered for admissibility to this diploma program.
- A demonstrated knowledge of spoken and written French e.g. competence equivalent to successful completion of FREN 222.

Application packages are available from the Department of French and the Faculty of Education. Before applying, consult with the student advisor in the Department of French, Ms. R. Gould, 604.291.4505.

Program Requirements
Students must successfully complete an approved program comprised of at least 30 upper division credit hours. Graduate courses may be taken with prior approval. Normally 15 credit hours will be completed from each of the French and education lists of courses below. A minimum cumulative GPA of 2.5 is necessary for courses applied toward the diploma.

The diploma must be completed within five years of program admission. Teachers seeking a reclassification should note that, since integrated programs are looked upon as upgrading work, all courses in such programs must be taken no more than 10 years before the date of reclassification through the Teachers’ Qualification Service.

Details of formal application for graduation are made through Student Services. For application deadlines, see “Department of Humanities” on page 177.

Transfer Credit
Transfer credit for course work in education and/or in French may be considered to fulfill requirements for this program. A maximum of six transfer credits in each of French and education may be awarded.

French Requirements
Students normally choose 15 credit hours from the following courses.
A minimum of two of
FREN 304-3 Advanced French Grammar
FREN 307-3 French Vocabulary
FREN 416-3 French Applied Linguistics

The remaining credit hours may be selected from 300 and 400 level French courses with the exception of FREN 342.

Please note that all course selections must be approved by the advisor in the French department.
Students with credit for the above courses or equivalents must select approved substitutes from upper division French courses. Students with no previous undergraduate courses in French linguistics or French literature are required to take the lower level prerequisites FREN 270 and/or FREN 230/240.

**Education Requirements**

Students normally choose 15 credits from among the following courses, including both of EDUC 441-4 Multicultural Education and EDUC 451-4 Classroom French Curriculum Practices.

EDUC 435-3 Classroom French Curriculum Practices
EDUC 451-4 Classroom French Curriculum Practices
EDUC 472-4 Language Arts
EDUC 473-4 Reading**
EDUC 474-4 Social Studies
EDUC 476-4 Mathematics
EDUC 476-4 Natural Sciences
EDUC 480-4 French as a Second Language
EDUC 481-4 French Immersion and Programme-cadre de Français***

*courses offered in French during summer institutes
**this course may be substituted with EDUC 826 if EDUC 473 has already been taken (special permission required).
***this course may be substituted with EDUC 858 if EDUC 481 has already been taken (special permission required).

**Certificate in French Language Proficiency**

This program is for students who may or may not be enrolled in a degree program and who wish to improve oral and written French proficiency. It is also for those wishing to enhance their knowledge of the language for cultural or professional needs. The program is not intended for native speakers of French.

Recommendations for the award of the certificate will be made by the Department of French and the Faculty of Arts and Social Sciences.

**Admission**

Normal admission regulations to Simon Fraser University will apply.

**Requirements**

Students must successfully complete 30 credit hours, of which 21 hours are earned by completing seven required courses. The remaining nine credit hours may be selected from any other French courses, excluding FREN 120, 121, 122, 198, and 342.

all of
FREN 210-3 Intermediate French I
FREN 211-3 Intermediate French II (or 212)
FREN 215-3 Intermediate French Language: Oral Practice
FREN 221-3 Writing French I
FREN 222-3 Writing French II
FREN 301-3 Advanced French Composition
one of
FREN 230-3 Introduction to French-Canadian Literature
FREN 240-3 Introduction to French Literature: Modern French Literature

**Recommended**

FREN 300-3 Advanced French: Oral Practice
FREN 330-3 The Francophone World
FREN 304-3 Advanced French Grammar

The program normally takes 5-6 semesters to complete. A minimum GPA of 2.5 is calculated on all SFU courses that are applied to the certificate. Duplicate courses are counted only once.

**Note:** It is possible to obtain exemption, up to a maximum of 12 credit hours, from lower division French language courses by advance placement, obtained by demonstrating equivalent preparation to the French department's satisfaction. Exempted courses must be replaced with credit obtained by:

- approved transfer credit for French courses taken at another post-secondary institution (subject to University regulations governing the approval of transfer credit), up to a maximum of six credit hours
- challenge credit for exempted courses (subject to University regulations governing approval of challenge credit), up to a maximum of six credit hours

Students who gain, or hope to gain, exemption should consult the advisor early in their program. In accordance with regulations governing certificate programs (see "General Information" on page 29), credits accumulated toward the certificate program may be applied also to major programs or extended minor programs or to a bachelor's degree.

**Italian Courses**

Italian courses are administered by the Department of French. For courses, see "Italian ITAL" on page 408. Students with a competence in the language beyond the level of the course in which they are registered will be required to withdraw. Students who are unsure of their language level are responsible for proficiency assessment prior to course registration. Consult the Department of French student advisor or inquire at the general office for the procedure to be followed.

**Certificate in Italian Studies**

The certificate requires a minimum of 30 credits comprising both lower and upper division courses. A maximum of six transfer credits may be counted toward this certificate (up to six credits of 100-level Italian language courses or up to six assigned transfer credits in Humanities, History or FPA courses or a combination thereof). This program serves full and part time students and those seeking educational enrichment in areas related to the establishment and evolution of Italian Humanism from the early Renaissance to Modern times. This certificate may be completed concurrently with and complements major/minor programs in areas such as French, Humanities, History and Contemporary Arts.

The certificate requires basic proficiency in Italian language (writing, reading and oral skills). It is intended for students wishing to pursue further studies in literature, history and the arts. It may be taken in conjunction with a degree program. Those students planning to obtain a BA within the Faculty of Arts and Social Sciences must complete the certificate in such a way that some of the Faculty of Arts and Social Sciences breadth requirements are fulfilled by the same courses. Courses used towards the certificate may also be used towards majors or minors.

**Program Requirements**

Students must complete 15 credits in Italian language instruction including:
ITAL 100-3, 101-3, 200-3, 201-3, 300-3
FPA 337-3 Intermediate Selected Topics in Film and Video Studies*

*possible that content of the course covers primarily Italian film and/or video

**Note:** Some of the above courses have specific prerequisites. It is the student's responsibility to ensure that all prerequisites are met for upper division courses listed in this program.

**Department of Geography**

7123 Robert C. Brown Hall, 604.291.3321 Tel, 604.291.5841 Fax, www.sfu.ca/geography

**Chair**

(to be announced)

**Professors Emeriti**

R.C. Brown BS, MS (Oregon State), PhD (Mich State)
C.B. Crampton BSc, PhD (Brist)
A. MacPherson MA (Edin), FRMetS
T.K. PKor PhD (Heidel)
M.C. Roberts BSc (Lond), MA (Tor), PhD (Iowa), PGeo**
E.J. Hickin PhD (Syd), PGeo**
I. Hutchinson BA (Liv), MSc (McG), PhD (S Fraser)
J.T. Pierce BA (Tor), MA (Wat), PhD (Lond)
W.G. Bailey BSc (Tor), PhD (McM)
N.K. Blomley BSc, PhD (Brist)
A.M. Gill BA (Hull), MA, PhD (Manit)**
R. Hayter BA (Newcastle, UK), MA (Alta), PhD (Wash)
M.V. Hayes BA, MSc, PhD (McM)
L.F.W. Lesack BSc (Manit), PhD ( Calif*)
J. Hyndman BA (Alta), MA (Lanc), PhD (Br Col)
M.L. Roseland, BA MA (Wesleyan, Conn), PhD (Br Col)
M.G. Schmidt BSc (Guelph), MSc (Lakehead), PhD (Br Col)
T.A. Brennand MA (Camb), PhD (Alta)
J.A.C. Broerman BA (Can), MA, PhD (Calif)
R.A. Clapp BA (Yale), MA, PhD (Calif)
H. Edwards BA, MSc, PhD (Calif)
S.T. Wong AB (Augustana, Ill), AM (Yale), PhD (Chic)

**Professors**

N. Hedley BSc (Lanc), MA (Colorado), PhD (Wash)
M. Holden BSc (Vic, BC), MS (Rutgers), PhD (NY State)**
P.T. Kingsby BA (Wales), MA, PhD (Kentucky)
G.P. Mann BA (McGill), MSc (Guelph), PhD (Calif)
R.C. Brown BS, MS (Oregon State), PhD (Mich State)

**Assistant Professors**

S. Dragicevic BEng (Belgrade), MSc (Belgrade), PhD (Mont)
N. Hedley BSc (Lanc), MA (Colorado), PhD (Wash)
M. Holden BSc (Vic, BC), MS (Rutgers), PhD (NY State)**
P.T. Kingsby BA (Wales), MA, PhD (Kentucky)
G.P. Mann BA (McGill), MSc (Guelph), PhD (Calif)
E. McCann MA (Glas), MA (Miami, Ohio), PhD (Kentucky)
W.L. Quinton BA (Wont), MSc (York, Can), PhD (Sask)
M.C. Roberts BSc (Lond), MA, PhD (Br Col)
J. Sturgeon BA (Calif), MA (Wash), PhD (Yale)

Assistant Professors

S. Dragicevic BEng (Belgrade), MSc (Belgrade), PhD (Mont)
N. Hedley BSc (Lanc), MA (Colorado), PhD (Wash)
M. Holden BSc (Vic, BC), MS (Rutgers), PhD (NY State)**
P.T. Kingsby BA (Wales), MA, PhD (Kentucky)
G.P. Mann BA (McGill), MSc (Guelph), PhD (Calif)
E. McCann MA (Glas), MA (Miami, Ohio), PhD (Kentucky)
W.L. Quinton BA (Wont), MSc (York, Can), PhD (Sask)
M.C. Roberts BSc (Lond), MA, PhD (Br Col)
J. Sturgeon BA (Calif), MA (Wash), PhD (Yale)
**BA Honors Program**

Students must complete all the requirements for the major program (see above) plus 10 additional credit hours from courses in the 300 and 400 level listings in Geography, and the following courses.

GEOG 491-4 Honors Essay 18 credit hours

A total of 132 semester hours is required of which 60 must be at the upper division. To graduate with honors, students must have grade point averages of not less than 3.00. See “Grade Point Averages Needed for Graduation” on page 50.

Entry into the honors program requires the approval of the department and admission GPAs of 3.00.

**BA Minor Program**

Students are expected to consult with a departmental advisor when they formally declare a minor in geography. Those who do not seek advice from the department run a risk of prolonging their programs.

**Lower Division Requirements**

Students must complete all of GEOG 100-3 Human Geography

and GEOG 111-3 Physical Geography

and one of GEOG 221-3 Economic Geography

and GEOG 241-3 Social Geography

and one of GEOG 251-3 Quantitative Geography

and GEOG 253-3 Aerial Photographic Interpretation

GEOG 255-3 Geographical Information Science I 12 credit hours

**Upper Division Requirements**

Students must complete a minimum of 15 credit hours in GEOG courses numbered 300 and 400.

15 credit hours

Total 27 credit hours

**Extended Minor Program**

Students are expected to consult with a departmental advisor when they formally declare an extended minor in geography. The program consists of the lower division requirements for a major and the upper division requirements for a minor (see above).

**Joint Major in Geography and Business Administration**

See “Joint Major in Business Administration and Geography” on page 204 for requirements.

**Joint Major in Geography and Canadian Studies**

See “Joint Major Programs” on page 150.

**Joint Major in Geography and Latin American Studies**

See “Joint Major Programs” on page 180.

**Geography – Environmental Specialty Major Program**

Students must complete GEOG 100-3 Human Geography

GEOG 301-4 Geographic Ideas and Methodology

GEOG 491-4 Honors Essay

A total of 132 credit hours is required of which 60 must be at the upper division. To graduate with honors, students must have grade point averages of not less than 3.00. See “Grade Point Averages Needed for Graduation” on page 50.

Entry into the honors program requires the approval of the department and admission GPAs of 3.00.
The following courses are recommended to fulfill the Breadth Requirements.

**REM 356-3** Institutional Arrangements for

**GEOG 445-4** Resource Planning

**GEOG 428-4** World Forests

**GEOG 389-4** Human Ecology: Human Relations to

plus the following five core courses

**GEOG 449-4** Environmental Processes and Urban Development

**GEOG 422-4** Theories and Practices of Development

**GEOG 386-4** Geography, Health and Health Care

**GEOG 323-4** Industrial Location

**GEOG 385-4** Agriculture and the Environment

**GEOG 386-4** Geography Practicum II

plus three of

**GEOG 241-3** Social Geography

**GEOG 221-3** Economic Geography

**GEOG 215-3** Biogeography

**GEOG 100-3** Human Geography

**ARCH 201-3** Introduction to Archaeology

**ARCH 365-3** Ecological Archaeology

**ARCH 386-3** Archaeological Resource Management

**CMNS 347-4** Communication in Conflict and Intervention

**CMNS 446-3** The Communication of Science and the Transfer of Technology

**HIST 360-4** The History of Science: 1100-1725

**HUM 325-4** The Humanities and the Natural World

**PHIL 120-3** Introduction to Moral Philosophy

**PHIL 244-3** Introduction to the Philosophy of Natural and Social Science

**SA 371-4** The Environment and Society

**WS 204-3** Women, Science and Technology

**ECON 451-3** Seminar in European Economic History

**ECON 450-3** Seminar in Quantitative Economic

**ECON 404-3** Honors Seminar in Methodology of the

**ECON 395-5** Comparative Economic Systems

**ECON 309-5** Foundations of Economic Ideas

**ECON 208-3** History of Economic Thought

**ECON 250-3** Economic Development in the Pre-Industrial Period

**ECON 309-5** Introduction to Marxian Economics

**ECON 355-4** Economic Development

**ECON 395-5** Comparative Economic Systems

**ECON 404-3** Honors Seminar in Methodology of the Social Sciences

**ECON 407-3** Seminar in Marxian Economics

**ECON 409-3** Seminar in Economic Thought

**ECON 450-3** Seminar in Quantitative Economic History

**ECON 451-3** Seminar in European Economic History

**ECON 455-3** Seminar in Economic Development

**Geography Information Science Program**

This program is offered jointly by the School of Computing Science and the Department of Geography. Students may pursue major or honor options leading to the BSc or BSc (Honors) degrees under the Faculty of Applied Sciences. See “Geographic Information Science Program” on page 135 for admission requirements.

**Languages Other Than English**

Some graduate schools require some proficiency in a language other than English. Students who contemplate graduate studies should complete language courses other than English.

**Certificate in Spatial Information Systems**

**Admission**

Students should consult with the departmental advisor as early as possible for program admission. Formal approval is required before completion of the certificate.

Credits applied to one certificate may not be applied to another Simon Fraser certificate or diploma.

**Requirements**

To qualify for the certificate, students must complete the following courses (or their equivalents from another department or institution):

- all of **GEOG 251-3** Quantitative Geography
- **GEOG 253-3** Aerial Photographic Interpretation
- **GEOG 255-3** Geographical Information Science I
- plus three of
  - **GEOG 351-4** Cartography and Visualization
  - **GEOG 352-4** Spatial Analysis
  - **GEOG 353-4** Remote Sensing
  - **GEOG 355-4** Geographic Information Science II
- plus two of
  - **GEOG 451-4** Spatial Modelling
  - **GEOG 453-4** Remote Sensing of Environment
  - **GEOG 454-4** Theoretical and Applied GIS

**Certificate in Urban Studies**

This certificate encourages and facilitates the study of the nature and functions of the contemporary city from an interdisciplinary perspective of geography, political science, sociology and anthropology. It is for undergraduates wishing a concentration in urban studies. Program completion is possible in one year but additional semesters may be required. It is suited to those contemplating careers in urban planning, governance or consulting.

**Admission Requirements**

Normal requirements for admission to Simon Fraser University apply. Students must complete GEOG 100 and POL 151 and/or POL 100 prior to formal admission to the certificate program.

**Course Requirements**

Successful completion of eight courses for a total of 27/29 credit hours including the following required courses.

- **GEOG 261-3** Introduction to Urban Geography
- **POL 252-3** Local Democracy and Governance
- **SA 201-4** Anthropology of Contemporary Life
- **PHIL 352-4** Urban and Local Governance in Canada
- **SA 364-4** Urban Communities and Cultures
- **GEOG 241-3** Social Geography
- **SA 202-4** Post-Industrial Society
- one and more course from the above list for a total of eight courses.

Credits applied to one certificate may not be applied to another Simon Fraser certificate or diploma.

**Co-operative Education**

The co-operative education program is for students who wish to acquire practical experience. The program entails planned semesters of study and employment in an area of the student’s choice.

**Requirements**

To be admitted into co-op, students must have completed a minimum of 28 credit hours with a minimum cumulative GPA of 2.75. Prior to admission, students must complete the following.

- **GEOG 251-3** Vegetation
- **GEOG 100-3** Human Geography
- **GEOG 111-3** Physical Geography
- **GEOG 221-3** Economic Geography
- one of
  - **GEOG 251-3** Quantitative Geography
  - **GEOG 253-3** Aerial Photographic Interpretation
  - **GEOG 255-3** Geographical Information Science I
- **GEOG 451-4** Spatial Modelling
- **GEOG 453-4** Remote Sensing of Environment
- **GEOG 454-4** Theoretical and Applied GIS

**Certificate in Environmental Management**

- **ARCH 201-3** Introduction to Archaeology
- **ARCH 365-3** Ecological Archaeology
- **ARCH 386-3** Archaeological Resource Management
- **CMNS 347-4** Communication in Conflict and Intervention
- **CMNS 446-3** The Communication of Science and the Transfer of Technology
- **HIST 360-4** The History of Science: 1100-1725
- **HUM 325-4** The Humanities and the Natural World
- **PHIL 120-3** Introduction to Moral Philosophy
- **PHIL 244-3** Introduction to the Philosophy of Natural and Social Science
- **SA 371-4** The Environment and Society
- **WS 204-3** Women, Science and Technology
Department of Gerontology

Room 2800, Harbour Centre site, 604.291.5065 Tel, 604.291.5066 Fax, www.sfu.ca/gerontology, gero@sfu.ca

Chair
A.V. Wister HBA, MA, PhD (Wont)

Professor Emeritus
G.M. Gutman BA (Br Col), MA (Alta), PhD (Br Col)

Professor
A.V. Wister HBA, MA, PhD (Wont)

Associate Professor
B. Mitchell BA, MA (Wat), PhD (McM)*

Assistant Professors
H. Chauve BSc, MSc, PhD (Trent)
N. O'Rourke HBBA (Wlaur), MA (Br Col), PhD (Ott)

Adjunct Professors
K. Anderson MSW, BSc (Calg)
S. Brink BA (Madr), MSc, PhD (Purdue)
M. Carr BN Nursing (McG), MSc (CHHS)
Y. Carrière BSc, MSc, PhD (Mntr)
S. Crawford BHE (Br Col), MSc (Lond), PhD (S Fraser)
S. Cusack BA, MA, PhD (S Fraser)
V. Doyle BA (Vic, BC), EdM (Harv), PhD (S Fraser)
E. Gallagher BSc Nursing (Windsor), MSc Nursing (Duke), PhD (S Fraser)
J. Gray BA, MA (Cant), PhD (Lond)
M. Hollander MSc (Br Col), PhD (Vic, BC)
T. Koch BA (Clark), MA (Br Col), PhD (Br Col)
L. McDonald-Misczczak BA (Alta), MA, PhD (Vic, BC)
A. Mihalidas BASc, MASC (Tor), PhD (Strath)
D. Robertson BSc (U. of Durham, UK), MD (Newcastle, UK)
J. Small BA (New Mexico, BA) Central (Wash), PhD (Calif)
C. Spencer BA (Calg), LLB, LLM (Sask)
W. Thornton BA (St Oflaf), MSc (Memphis State), PhD (Mem)
L. Trottier BSc (Br Col)
L. Young BSN, MSN, PhD (Br Col)

Associate Members
P. Dossa, Sociology and Anthropology
R.W. Gordon, Criminology
W. Parkhouse, Kinesiology
S. Robinvitch, Kinesiology

Steering Committee
C.B. Dean, Mathematics and Statistics
P. Dossa, Sociology and Anthropology
R.W. Gordon, Criminology
J. Martin, Education
W. Parkhouse, Kinesiology
A. Rawicz, Engineering Science
W. Thornton, Psychology

Advisor
Ms. A. Barrett, Room 2800, Harbour Centre site, 604.291.5065

*joint appointment with sociology and anthropology

Minor Program

The minor will provide specialized education on gerontology for undergraduate students interested in combining course work in aging related issues with an existing major program. Students entering the program must have completed a minimum of 60 credit hours with a cumulative grade point average of 2.0 or higher. The following prerequisite courses are recommended for those entering this program.

KIN 105-3 Fundamentals of Human Structure and Function
KIN 142-3 Introduction to Kinesiology
PSYC 100-3 Introduction to Psychology I
PSYC 102-3 Introduction to Psychology II
SA 150-4 Introduction to Sociology (S)
STAT 203-3 Statistics for the Social Sciences

Approved minor students must complete GERO 300 plus 12 credit hours chosen from the following.
GERO 301-3 Research Methods in Gerontology
GERO 302-3 Health Promotion and Aging
GERO 400-4 Seminar in Applied Gerontology
GERO 401-3 Aging and the Built Environment
GERO 402-3 Drug Issues in Gerontology
GERO 403-3 Counselling Issues with Older Adults
GERO 404-3 Health and Illness in Later Life
GERO 406-3 Death and Dying
GERO 407-3 Nutrition and Aging
GERO 408-4 Families and Aging
GERO 409-3 Mental Health and Aging
GERO 410-3 Special Topics in Gerontology I
GERO 411-3 Special Topics in Gerontology II
GERO 412-3 Special Topics in Gerontology III
GERO 414-4 Special Topics in Gerontology IV
GERO 420-4 Sociology of Aging
GERO 435-3 Adult Guardianship Law

Additional courses from various departments are designated for inclusion in the minor. A list of these courses is available from the Gerontology Program. A maximum of six credit hours of designated courses may be applied towards the minor with prior approval from the program advisor. Candidates intending to apply for admission to the Post Baccalaureate Diploma in Gerontology or to the master's program should contact the program advisor before selecting the courses for the minor.

Post Baccalaureate Diploma

This program is for students who have completed a bachelor's degree and are working or plan to work with the elderly. It provides a broadly based, multidisciplinary perspective on aging as well as requisite knowledge and skills for meaningful intervention and application of research findings to practice.

For information about the program's general regulations, see “Post Baccalaureate Diploma Program” on page 30.

Admission Requirements

• completion of a bachelor's degree from a recognized university with a minimum graduation grade point average of 2.5.
• three letters of reference attesting to the applicant's personal qualities and characteristics, ability to complete a post baccalaureate program of studies and career potential and dedication to the field of gerontology. Students are advised to obtain an application package from the program office. The application package includes letter of reference forms, program information and a separate application to the Gerontology Diploma Program.

Required Courses

Applications are also available at www.sfu.ca/gerontology

Required Courses
GERO 300-3 Introduction to Gerontology
GERO 301-3 Research Methods in Gerontology
GERO 400-4 Seminar in Applied Gerontology
GERO 420-4 Sociology of Aging

Optional Courses

EDUC 351-3 Teaching the Older Adult
GERO 302-3 Health Promotion and Aging
GERO 401-3 Aging and the Built Environment
GERO 402-3 Drug Issues in Gerontology
GERO 403-3 Counselling Issues with Older Adults
GERO 404-3 Health and Illness in Later Life
GERO 406-3 Death and Dying

Notes:

Most diploma program courses have prerequisites. A student who has not completed appropriate prerequisites may be required to do so before registering in the diploma program courses. Contact the program advisor for information on prerequisites and general program requirements.

Students should take GERO 301 and 302 when they begin the program, and GERO 400 near the end.

Students may choose PSYC 301, SA 355 or any other approved courses in research methodology as an alternative to GERO 301; however, only one of these courses may be applied toward the diploma.

Courses other than above may be designated for gerontology diploma credit from semester to semester. Check with the program for listings.

Department of History

6026A Academic Quadrangle, 604.291.3521 Tel, 604.291.5837 Fax, www.sfu.ca/history

Chair
J.S. Craig BA, MA (Car), PhD (Camb), FRHistS

Professors Emeriti
R.E. Boyer BA (Westmont), MA (Wash), PhD (Conn)
C.R. Day BA (Stan), MA, PhD (Harv)
R.K. Deblo BA, MA, PhD (Nebraska)
E.R. Ingram MA (Oxf), PhD (Lond), FRHistS
H.J.M. Johnston BA (Tor), MA (WOnt), PhD (Lond)
D.S. Kirschner BA, MA, PhD (Iowa)
J.M. Kitchen BA, PhD (Lond), FRHistS, FRSCan
R.C. Newton BA (Rutgers), MA, PhD (Flor)

Hellenic Canadian Congress of BC Chair in Hellenic Studies
A. Gerolymatos BA (C'dia), MA, PhD (McG)

Professors
W.L. Cleveland BA (Dartmouth), MA, PhD (Prin)
A. Gerolymatos BA (C'dia), MA, PhD (McG)
J.I. Little BA (Bishops) MA (New Br), PhD (Ott)
J.O. Stubbins BA (Tor), MSc (Lond), DPhil (Oxf)

Associate Professors
J.S. Craig BA, MA (Car), PhD (Camb), FRHistS
C.I. Dyck BA, MA, PhD (Lond)
K. Ferguson BA (McG), MA, PhD (Duke)
M.E. Kelm BA, MA, PhD (Tor)
M. Leier BA, MA (Wat), PhD (McM)*
D.N. MacLean BA (NY State), MA, PhD (McG)
Group 3 – Africa, Middle East, Asia
HIST 146-3 Africa in Recent History
HIST 151-3 The Modern Middle East
HIST 205-3 Premodern Japan
HIST 206-3 Modern Japan
HIST 231-3 The Origins of Modern Africa: Conquest, Resistance and Resurgence
HIST 249-3 Classical Islamic Civilization
HIST 252-3 Islamic India
HIST 254-3 China to 1800
HIST 255-3 China Since 1800

Note: Candidates for a history major may count one or both of WS 201 and 202 towards the required 18 lower division history credit hours credit. All students must obtain credit in at least nine hours of lower division history credit before enrolling in upper division work.

Upper Division Requirements
Major students must obtain credit in at least 32 credit hours (eight courses) of 300 and 400 division work; 12 hours (three courses) must be in 400 division work. Courses must be distributed within all three groups. Students must take at least two courses from any two groups, and at least one from the remaining group.

Consult one of the department's advisors before beginning the program.

Group 1 – Europe
HIST 308-4 The Byzantine Empire
HIST 309-4 Early Modern Greek History: 1453-1821
HIST 310-4 Women and the Family in Modern Europe
HIST 312-4 Poverty, Crime, and Madness: Society and the Outcast
HIST 315-4 Politics and Society in England, 1500-1707
HIST 316-4 English Society since the Mid 18th Century
HIST 319-4 France since 1800
HIST 320-4 European Reformation
HIST 321-4 State and Society in Early Modern Europe
HIST 331-4 Germany from the Reformation to 1815
HIST 332-4 Germany since 1815
HIST 334-4 Russia to 1900
HIST 335-4 20th Century Russia
HIST 336-4 Absolutism and Enlightenment
HIST 337-4 The Balance of Power in Europe
HIST 338-4 World War I
HIST 339-4 The British Empire and Commonwealth
HIST 360-4 The History of Science: 1100-1725
HIST 361-4 The History of Science: The 18th Century to the Present
HIST 401-4 Problems in Modern German History
HIST 402-4 Renaissance Italy
HIST 403-4 The European Reformation
HIST 404-4Protestants, Papists and Puriitans: Culture and Belief in Early Modern England, 1500 – 1640
HIST 405-4 Authority and Community in Early Modern English Society, 1500 – 1700
HIST 407-4 Popular Culture in Great Britain and Europe
HIST 411-4 Class and Gender in Modern Europe
HIST 412-4 Marxism and the Writing of History
HIST 413-4 Britain and Europe in the Twentieth Century
HIST 414-4 The Impact of the Great War
HIST 415-4 Victorian Britain
HIST 416-4 The French Revolution
HIST 417-4 Modern French Problems in History
HIST 419-4 Late Imperial and Revolutionary Russia
HIST 420-4 The History of Russian Foreign Policy from Catherine the Great to Stalin
HIST 421-4 Modern Greece, 1864-1925
HIST 422-4 Greece, 1935-1944: Occupation and Resistance

Group 2 – The Americas
HIST 101-3 Canada to Confederation
HIST 102-3 Canada Since Confederation
HIST 104-3 History of the Americas to 1763
HIST 201-3 The History of Western Canada
HIST 204-3 The Social History of Canada
HIST 208-3 Latin America: the Colonial Period
HIST 209-3 Latin America: the National Period
HIST 212-3 The United States to 1877
HIST 213-3 The United States since 1877

Group 4 – The Americas
HIST 350-4 The Ottoman Empire and Turkey
HIST 352-4 Religion and Politics in Modern Iran
HIST 354-4 Imperialism and Modernity in the Middle East
HIST 355-4 The Arab Middle East in the Twentieth Century
HIST 365-4 Self and Society in Imperial China
HIST 371-4 The Asia Pacific War in Modern Japanese History
HIST 465-4 The Palestinian-Israeli Conflict
HIST 467-4 Modern Egypt
HIST 469-4 Islamic Social and Intellectual History
HIST 471-4 Women in Modern Japanese History
HIST 473-4 The Making of South African Society
HIST 474-4 Modern Chinese Identities
HIST 481-4 British India
HIST 483-4 The Struggle for Identity in Sub-Saharan Africa

These interdisciplinary courses below have some Canadian history content.
CNS 160-3 The Social Background of Canada
CNS 210-3 Foundations of Canadian Culture
CNS 391-3 Special Canadian Topics
CNS 490-3 Canadian Intellectual Tradition
Concentration in Middle Eastern and Islamic History
Students may qualify for this concentration by completing two of
HIST 151-3 The Modern Middle East
HIST 249-3 Classical Islamic Civilization
HIST 252-3 Islamic India
plus four of
HIST 350-4 The Ottoman Empire and Turkey
HIST 352-4 Religion and Politics in Modern Iran
HIST 355-4 The Arab Middle East in the Twentieth Century
HIST 465-4 The Palestinian-Israeli Conflict
HIST 467-4 Modern Egypt
HIST 469-4 Islamic Social and Intellectual History

Concentration in British History
Students may qualify for this concentration by completing
HIST 215-3 The Making of the British Isles
plus one of
HIST 315-4 Politics and Society in England, 1500–1700
HIST 316-4 English Society since the Mid 18th Century
and four of
HIST 339-4 The British Empire and Commonwealth
HIST 404-4 Protestants, Papists and Puritans: Culture and Belief in Early Modern England, 1500 – 1640
HIST 405-4 Authority and Community in Early Modern English Society, 1500 – 1700
HIST 407-4 Popular Culture in Great Britain and Europe
HIST 413-4 Britain and Europe in the Twentieth Century
HIST 415-4 Victorian Britain
HIST 481-4 British India

Honors Program
In intensive, small seminars, students refine discussion skills, expository writing, and critical thought. No more than 30 students are enrolled at any one time. Those who wish to pursue the honors program apply to the program supervisor at the end of the fourth level. Those admitted must maintain a minimum GPA of 3.33 in all honors courses, and a minimum of 3.0 in all other upper division courses. The three required honors courses must be completed in three semesters in a fall/spring/fall/sequence and all other work must be completed within six semesters of program admission.
Honors students must complete the following.
HIST 300-4 Approaches to History
HIST 305-2 Honors Tutorial
HIST 400-4 Seminar in Historical Methods
HIST 498-8 Honors Essay
In addition to the 18 honors program credit hours, 42 upper division credit hours are also required. Students are encouraged to take courses outside the department but at least 50 of the 60 upper division hours must be in history courses. For honors requirements, see page 145.

Minor Program
To enter the minor program, students must obtain at least nine credit hours in 100 and 200 division history. Minor students must obtain credit in 300 and 400 division work, totalling at least 16 credit hours with at least four credit hours in each level. Courses with appropriate historical content in the Department of Women’s Studies, Latin American Studies Program, and Humanities Program will be considered by history for designated credit toward this minor. Such courses for the minor must have prior approval from the departments’ advisors.

Minor in Labor Studies
Students must complete 24 credit hours comprised of nine lower division credit hours including LBST 101-3 Introducing Labor Studies and 15 upper division credit hours including LBST 301-3 Labor Movements: Contemporary Issues and Images

Optional Courses
The remaining required elective credit hours may be chosen from the following list.
BUS 484-3 Workplace Industrial Relations
BUS 488-3 Human Relations in Business
BUEC 280-3 Introduction to Labor Economics
BUEC 384-3 Industrial Relations
BUEC 396-3 The Structure of Industry
BUEC 485-3 Collective Bargaining
CNS 280-3 Canadian Political Economy
CMNS 454-4 Computer Mediated Work and Workplace Communication
ECOP 103-3 Principles of Microeconomics
ECOP 309-5 Introduction to Maxivan Economics
ECOP 353-4 Economic History of Canada
ECOP 381-4 Labor Economics
ECOP 480-3 Seminar in the Economics of Labor Market Policy
EOEC 426-4 Industrial Change and Local Development
HIST 327-4 Canadian Labor and Working Class History
HIST 412-4 Marxism and the Writing of History
HIST 424-4 Problems in the Cultural History of Canada*
HIST 428-4 Problems in the Social and Economic History of Canada
HIST 453-4 The United States in Depression and War
KIN 381-3 Psychology of Work and Human Performance
KIN 382-3 Physical Hazards in the Workplace
LAS 318-4 Political Economy of Latin American Development
POL 222-3 Introduction to Canadian Politics
POL 223-3 Canadian Political Economy
POL 327-4 Globalization and the Canadian State
POL 343-4 Global Political Economy
POL 356-4 The Political Economy of Labor
POL 383-4 Political Economy of Latin America
POL 423-4 BC Government and Politics
SA 202-4 Post-Industrial Society
SA 263-4 Peasants, Proletarians and the Global Economy
SA 321-4 Social Movements
SA 328-4 Political Economy of Latin American Development
SA 340-4 Social Issues and Social Policy Analysis
SA 362-4 The Global Division of Labor
WS 308-4 Women and Work
WS 310-4 Special Topics in Women’s Studies*
WS 314-4 Race, Class and Gender Relations
*when topic is appropriate
Students may take relevant Special Topics courses in place of those above with Labor Studies approval.

Languages Other Than English
Although not required for a history BA, it is useful to be acquainted with a language other than English for many history courses. Students, especially those who intend to pursue graduate courses, should consider including a second language in their programs.

Joint Major in History and Canadian Studies
See “Joint Major Programs” on page 150.

Joint Major in French, History and Politics
This joint major offers study of the language, history, politics and culture of French speaking people of Canada and the world. It prepares for careers in civil service, politics (with an emphasis on Canadian government and politics or on international relations), diplomatic service, international organizations, journalism, teaching and archival work. For further details, see page 170.

Joint Major in History and Humanities
See “Joint Major in History and Humanities” on page 178.

Joint Major in History and Latin American Studies
See “Joint Major Programs” on page 180.

Joint Major in History and Women’s Studies
For program requirements, see “Joint Major in History and Women’s Studies” on page 198.

Extended Minor Program
This program consists of the lower division requirements for a major and the upper division requirements for a minor. Other criteria may be set by individual departments and programs. A student must have their program approved by the advisor for the extended minor program. The program requires 18 credit hours in 100 and 200 division courses and 16 hours in 300 and 400 division, with at least four credit hours in each level.

Certificate in Labor Studies
Students must complete a minimum of 24 credit hours including both of
LBST 101-3 Introducing Labor Studies
LBST 301-3 Labor Movements: Contemporary Issues and Images
The remaining elective courses may be chosen from the list of optional courses as show for the Minor in Labor Studies. See “Optional Courses” on page 176.

Certificate in Hellenic Studies
6219 Academic Quadrangle, 604.291.5886
The certificate, which requires a 24 credit hour minimum, is for those with Hellenic studies general interest and also for those interested in graduate Greek history. The latter are advised to take two language courses. Completion of prerequisites for upper division courses is the student’s responsibility. Special topics courses may be taken in place of those listed below with the advisor’s approval.

Lower Division Requirements
Students must complete three of
HUM 102-3 Classical Mythology
HUM 151-3 Ancient Greek I
HUM 152-3 Ancient Greek II
HUM 201-3 Great Texts in Humanities I
GRK 110-3 Modern Greek for Beginners I
GRK 160-3 Modern Greek for Beginners II
9 credit hours
A student who successfully completes all four language courses (HUM 151, 152, LANG 110, 160) need take only three from the upper division list.

Upper Division Requirements
Students must complete four of
HIST 308-4 The Byzantine Empire
HIST 309-4 Early Modern Greek History 1453-1821
HIST 421-4 Modern Greece, 1864-1925
HIST 422-4 Greece, 1935-1944; Occupation and Resistance
HUM 302-4 The Golden Age of Greece: An Integrated Society
PHIL 350-3 Ancient Philosophy
15 or 16 credit hours

Co-operative Education Program
Co-op combines work experience with academic studies. Students spend alternate semesters on campus and in paid, study related jobs which provide practical experience in social sciences, interpretive skills and complements a history degree. Students complete either a general co-op program or have the work semesters qualify as the internship portion of the public history program. Work experience arrangements are made through the department's co-op co-ordinator and the University's Office of Co-op Education. See page 240.

Department of Humanities
5115 Academic Quadrangle, 604.291.4504 Fax, www.sfu.ca/humanities

Interim Chair
L. Burton BA (Towson State), MSc (Johns H), MA, PhD (Columbia Teachers)

Professors Emeriti
A. Gomez-Moriana Lic, PhD (Salamanca), MA, PhD (Mun)
J.J. Kirschner BA (Roosevelt), MA, PhD (Chic)
J. Zaslove BA (Case W Reserve), PhD (Wash)*
Jack and Nancy Farley Endowed University Professor (to be announced)
J.S. Woodsworth Chair
E. Steben BA, MA (Calg), PhD (Duke)
J.S. Woodsworth Resident Scholar
R.J. Menzies BA (York, Can), MA, PhD (Tor)

Professors
I. Angus BA, MA (Wat), PhD (York, Can)
S. Duguid BA (Ill), MA, PhD (S Fraser)
P.E. Dutton BA (WOni), MA, PhD (Tor), MSL, MSD (Pontif Inst Tor)
K. Mezei BA (York, Can), MA (Car), PhD (Qu)

Associate Professors
L. Burton BA (Towson State), MSc (Johns H), MA, PhD (Columbia Teachers)
A.M. Feenberg-Dibon Licence d'Anglais, Diplome d'Etudes Superieures (Sorbonne), PhD (Calif)
T. Kawasaki LLB (Doshisha), MA (Tor), MA, PhD (Prin)**
D.C. Mirhady BA, MA (Br Col), PhD (Rutgers)

Assistant Professors
S. Gandesha BA (Br Col), MA, PhD (York)
E. O'Brien BA (Tor), MA, PhD (Brown)**

Adjunct Professor
P. Kingsley MLitt (Camb), PhD (Lond)

Associate Member
Y. Wosk, Continuing Studies

Senior Lecturer
T. Yu BA (HK), MA, PhD (Br Col)
Lecturer
C. Jones BA (Br Col), MA, PhD (McG)

*joint appointment with English
**joint appointment with political science
***joint appointment with history

Advisor
Ms. C. Prisland, 5114 Academic Quadrangle, 604.291.4094, prisland@sfu.ca

Humanities is the study of a broad range of ideas and subjects drawn from philosophy, art, literature, history, religion, science, and social and political thought. Through a comparative and interdisciplinary approach to classical, medieval, renaissance, and modern culture, study of the humanities raises critical questions about achievements and controversies associated with civilization itself. Students are encouraged to examine knowledge and ideas central to the humanities and to integrate these concerns with degree programs in original and critical ways.

The Asia-Canada Program and the graduate Liberal Studies Program are affiliated with the Department of Humanities. Refer directly to their respective sections (see “Asia-Canada Program” on page 148 and also see “Liberal Studies Program” on page 294).

Major Program
Lower Division Requirements
Eighteen lower division credit hours including HUM 101-3 Introduction to the Humanities plus one of HIST 105-3 Western Civilization from the Ancient World to the Reformation Era
HIST 106-3 Western Civilization from the Reformation Era to the 20th Century
plus one of
PHIL 150-3 History of Philosophy I
PHIL 151-3 History of Philosophy II

Upper Division Requirements
Thirty credit hours in upper division humanities courses which must include
HUM 495-2 Humanities Graduating Seminar

Recommended
HUM 305-4 Medieval Studies
HUM 307-4 Carolingian Civilization
HUM 311-4 Italian Renaissance Humanism
HUM 312-4 Renaissance Studies
HUM 321-4 The Humanities and Critical Thinking

Joint Major in French and Humanities

This inter-departmental program explores the relationship between the study of humanities and French. Interested students must plan their program in consultation with advisors in each department.

Lower Division Requirements
French
Students must complete the lower division requirements of the French major program. Please see “Lower Division Requirements” on page 168.

Humanities
Students must complete 15 credit hours including HUM 101-3 introduction to the Humanities and two of HUM 201-3 Great Texts in the Humanities I
HUM 202-3 Great Texts in the Humanities II
HUM 203-3 Great Texts in the Humanities III

Upper Division Requirements
French
FREN 301-3 Advanced French Composition and one of FREN 360-4 Intermediate French Literature
FREN 370-4 Introduction to French Linguistics II plus 15 credit hours from the 400 level French linguistics or literature offerings. FREN 461 and 462 are recommended.

Humanities
Students must complete two upper division humanities courses which must include
HUM 495-2 Humanities Graduating Seminar

Recommended
HUM 307-4 Carolingian Civilization
HUM 311-4 Italian Renaissance Humanism
Joint Major in History and Humanities

This joint major is for those interested in exploring relationships between the two disciplines. Students must plan their program in consultation with advisors in each department.

Lower Division Requirements

History
Students must complete the lower division requirements of the history major program. Please see “Lower Division Requirements” on page 178.

Humanities
Fifteen credit hours including
HUM 101-3 introduction to the Humanities and one of
HUM 201-3 Great Texts in the Humanities I
HUM 202-3 Great Texts in the Humanities II
HUM 203-3 Great Texts in the Humanities III
and two further humanities courses.

Upper Division Requirements

History
Twenty four credit hours of 300 and 400 level history courses, of which 12 hours must be in 400 level courses. Students must take at least two courses from any two groups, and at least one from the remaining group. For a description of the three groups, see “Major Program” on page 172.

Humanities
Twenty-two credit hours in upper division humanities courses which must include
HUM 495-2 Humanities Graduating Seminar

Recommended
HUM 320-4 The Humanities and Philosophy
HUM 321-4 The Humanities and Critical Thinking

Philosophy
Twenty-one credit hours which include PHIL 301.

Joint Major in Women’s Studies and Humanities

For requirements, see “Joint Major in Humanities and Women's Studies” on page 198.

Minor Program

Lower Division Requirements

Nine lower division credit hours including
HUM 101-3 introduction to the Humanities and one of
HUM 201-3 Great Texts in the Humanities I
HUM 202-3 Great Texts in the Humanities II
HUM 203-3 Great Texts in the Humanities III
and one further humanities course.

Upper Division Requirements

Students must complete 16 credit hours in upper division humanities courses comprising four courses, or three courses plus HUM 400. Students wishing to complete an individual research project should include HUM 400 in their program.

Extended Minor Program

Students may qualify for a BA with an extended minor in humanities plus one other extended minor, or may use the extended minor in combination with other programs in other disciplines.

Lower Division Requirements

Students must complete the lower division requirements for the major in humanities.

Upper Division Requirements

Students must complete 16 upper division credit hours in humanities courses.

Post Baccalaureate Diploma in Humanities

This is for those who have completed a bachelor’s degree. For information about the program’s general regulations, see “Post Baccalaureate Diploma Program” on page 30.

Program Requirements

Students must successfully complete an approved program comprising 30 upper division or graduate credit hours including at least 16 HUM credit hours. Students should include HUM 400. The remaining 14 are selected in consultation with an advisor in the subject or discipline which most closely fits the student’s goals. Contact the humanities advisor.

Co-operative Education

Co-operative education courses are for students who meet the requirements for the Faculty of Arts and Social Sciences Co-operative Education Program and who wish practical experience related to their Humanities studies. The program entails planned study semesters and employment. See the course descriptions for HUM 471, 472, 473, 474 (page 397). Work semester arrangements are made through the Faculty of Arts and Social Sciences co-op co-ordinator who should be consulted at least one semester in advance. See “Co-operative Education” on page 240.

International Studies

SFU Vancouver, 604.268.7148 Tel, www.sfu.ca/internationalstudies

Chair
T.A. Perry BA (Wabash), MA, PhD (Indiana), Associate Dean, Faculty of Arts and Social Sciences

Steering Committee
S. Easton, Economics
R. Harris, Economics
A. Gerolymatos, History
P. Dossa, Sociology and Anthropology
A. Hira, Political Science
S. McBride, Political Science
J. Hyndman, Geography
G. Otero, Latin American Studies Program
J. Walls, Asia-Canada Program

Advisor
For inquiries, please contact ints@sfu.ca or call 604.268.7148.

The International Studies program is designed primarily for students with a background or interest in fields such as Political Science, History, Economics, Geography, Sociology, the Humanities as well as other areas of study. Students will be able to obtain specialization in international or transnational issues through a curriculum which provides integrated training and experience concerning the complex and challenging issues that are central to global affairs. Current public or private sector employees who wish to specialize in specific dimensions necessary to understanding and addressing international issues may also be interested in this program.

Program Requirements

Students may adopt International Studies as a major, minor, or honors as part of their course work at SFU. Students may apply for admission to the International Studies program after completing no less than 45 credit hours. Admission decisions will be made by the International Studies curriculum advisory committee. Interested students should contact the International Studies program advisor.

The International Studies program will consist of three primary components: prerequisite courses required for the thematic modules, thematic modules, and a foreign cultural component.

Major Program

Lower Division Requirements

Fifteen lower division credit hours including:
• two of INTS 220-3 Introduction to International Economies
POL 231-3 Introduction to Comparative Governments and Politics
POL 241-3 Introduction to International Politics
• and an additional 9 lower division credits chosen from lower division module courses.

Upper Division Requirements

• completion of two of the three modules (32 credits)
• fulfillment of foreign cultural component requirements

Honors Program

The honors program is for those students who wish to refine their discussion skills, expository writing and critical thought with an international context. Those who wish to pursue the honors program must apply to the program director after completion of 18 lower division credit hours. Those admitted must maintain a minimum GPA of 3.0.
Honors requirements are:
- 18 lower division credit hours
- 50 upper division credit hours including all requirements for the major.

The additional lower division course (three credits) and the upper division courses (18 credits) can be from any of the modules or foreign cultural component.

**Minor Program**

**Lower Division Requirements**
Twelve lower division credit hours including one of:
- INTS 220-3 Introduction to International Economies
- POL 231-3 Introduction to Comparative Governments and Politics
- POL 241-3 Introduction to International Politics

Additional lower division credits chosen from required courses or lower division module courses.

**Upper Division Requirements**
Sixteen upper division credits including the completion of one of the three thematic modules.

**International Studies Modules**
Students must complete both upper and lower division requirements in each module to fulfill the module requirement. No more than 40% of the required upper division credits can be fulfilled from any one department.

Each module contains one required course, as identified below. Note that POL 100 (or equivalent) is a prerequisite for the required courses for Modules 1 and 2. (POL 231 and POL 241). ECON 103 and 105 are the prerequisites for INTS 220, the required course for module 3. Lower division courses in each module may be counted as elective credit to fulfill the lower division credit hour requirements for a degree program. In addition, the program advisor may approve selected international fields school or exchange courses (see below) for credit towards a module when the topic is appropriate. It is the student’s responsibility to ensure that all prerequisites are met for upper division courses listed in this program.

**MODULE 1: International Security, Foreign Relations, and International Organizations**

**Lower Division**
- POL 241-3 Introduction to International Politics (required)
- GEOG 102-3 World Problems in Geographic Perspective
- SA 203-4 Violence in War and Peace

**Upper Division**
- CRIM 413-3 Terrorism
- CRIM 431-3 Comparative Criminal Justice Systems
- HIST 337-4 The Balance of Power in Europe
- HIST 414-4 The Impact of the Great War
- LAS 320-3 Canada-Latin America
- POL 341-4 International Integration and Regional Association
- POL 342-4 Relations Between Developed and Developing Nations
- POL 344-4 Public International Law
- POL 348-4 International Organizations
- POL 347-4 Introduction to Canadian Foreign Policy
- POL 348-4 Theories of War, Peace, and Conflict Resolution
- POL 349-4 Selected Topics in International Relations
- POL 417-4 Human Rights Theories
- POL 422-4 Canadian International Security Relations
- POL 441-4 Comparative Foreign Relations: Selected Political Systems
- POL 443-4 Nuclear Strategy, Arms Control and International Security
- POL 444-4 Politics and Foreign Policy of the European Union
- POL 445-4 American Foreign Policy: Processes and Issues
- POL 446-4 International Relations of East Asia
- POL 448-4 Selected Topics in International Relations I
- POL 449-4 Selected Topics in International Relations II

**MODULE 2: Comparative World Politics: Culture, Identity and Political Processes**

**Lower Division**
- POL 231-3 Introduction to Comparative Government and Politics (Required for this module)
- ASC 200-3 Introduction to Chinese Culture
- ASC 201-3 Introduction to Japanese Culture and History
- ASC 202-3 Studies in Asian Cultures
- HIST 206-3 Modern Japan
- HIST 209-3 Latin America: The National Period
- POL 232-3 US Politics
- SA 203-4 Violence in War and Peace
- SA 275-4 Asian Societies
- WS 200-3 Women in Cross-Cultural Perspective

**Upper Division**
- ASC 300-3 Asians and North Americans in Public Discourse
- GEOG 420-4 Comparative Cultural Geography
- GEOG 446-4 Migration and Globalization
- GEOG 497-5 International Field Study
- HIST 335-4 Twentieth Century Russia
- HIST 352-4 Religion and Politics in Modern Iran
- HIST 354-4 Imperialism and Modernity in the Middle East
- HIST 355-4 The Arab Middle East in the Twentieth Century
- HIST 420-4 The History of Russian Foreign Policy from Catherine the Great to Stalin
- HIST 421-4 Modern Greece, 1864-1925
- HIST 465-4 The Palestinian-Israeli Conflict
- HIST 483-4 The Struggle for Identity in Sub-Saharan Africa
- LAS 403-4 Special Topics: Latin American Economy and Society
- POL 333-4 Soviet and Post-Soviet Political Systems
- POL 334-4 East European Political Systems
- POL 335-4 Government and Politics: People's Republic of China I
- POL 336-4 Government and Politics: People's Republic of China II
- POL 337-4 Government and Politics: Selected Latin American Nations I
- POL 339-4 Selected Topics in Comparative Government and Politics
- POL 381-4 Politics and Government of Japan I
- POL 383/SA 483-4 Political Economy of Latin American Development
- POL 431-4 Comparative Western European Systems
- POL 432-4 Communist and Post-Communist Political Systems
- POL 435-4 Comparative Federal Systems
- POL 436-4 Elections, Parties, and Governments
- POL 438-4 Selected Topics in Comparative Government and Politics I
- POL 439-4 Selected Topics in Comparative Government and Politics II
- POL 481-4 Ethnic Politics and National Identity: Comparative Perspectives
- SA 303-4 Ethnic Conflicts
- SA 321-4 Social Movements
- SA 388-4 Comparative Studies of Minority Indigenous Peoples
- SA 392-4 Latin America
- SA 396-4 Selected Regional Areas
- SA 403/LAS 403-4 Special Topics: Latin American Economy and Society
- SA 435-4 Gender, Colonialism and Post-Colonialism

**MODULE 3: International Development, Economic, and Environmental Issues**

**Lower Division**
- INTS 220-3 Introduction to International Economics (required)
- ECON 102-3 The World Economy
- ECON 105-3 Principles of Macroeconomics
- ECON 210-3 Money and Banking
- ECON 260-3 Environmental Economics
- GEOG 263-3 Selected Regions
- REM 100 Global Change

**Upper Division**
- ECON 342-3 International Trade
- ECON 345-3 International Finance
- ECON 355-4 Economic Development
- ECON 395-4 Comparative Economic Systems
- ECON 443-3 Seminar in International Trade
- ECON 446-3 Seminar in International Finance
- ECON 455-3 Seminar in Economic Development
- GEOG 322-4 World Resources
- GEOG 381-4 Political Geography
- GEOG 382-4 Population Geography
- GEOG 446-4 Migration and Globalization
- GEOG 460-4 Selected Regions
- INTS 320-4 Selected Problems in the International Economy
- LAS 403-4 Special Topics: Latin American Economy and Society
- LAS 410-4 Andean History and Culture
- LAS 422-4 Theories and Practices of Development
- LAS 483-4/SAS 483-4 Political Economy of Latin American Development
- POL 327-4 Globalization and the Canadian State
- POL 343-4 Global Political Economy
- POL 345-4 The Nation-State and the Multinational Corporation
- POL 414-4 Theories of Political Development
- POL 433-4 Comparative Developing Systems
- POL 442-4 The Politics of International Trade
- POL 447-4 Theories of International Political Economy
- POL 448-4 Selected Topics in International Relations I
- POL 450-4 Globalization and Regional Politics in Latin America
- SA 363-4 Processes of Development and Underdevelopment
- SA 463-4 Special Topic in Development Studies
- REM 311-3 Applied Ecology and Sustainable Environments
- WS 309-4 Gender and Development

**Foreign Cultural Component**

**Language proficiency**

Students are required to have an acquaintance with a language other than English. Students who do not meet this requirement are encouraged to take language courses either at SFU's Language Training Institute or the Department of French, or through the field school and foreign exchange programs abroad. Demonstrated proficiency in a second language will consist of the equivalent of four semesters of a language given in SFU language programs.

Language courses offered at SFU:

**Lower Division**
- CHIN 100-3 Mandarin Chinese I
- CHIN 101-3 Mandarin Chinese II
- CHIN 191-3 Spoken Mandarin for Speakers of Other Chinese Dialects
- CHIN 152-3 Spoken Mandarin for Speakers of Other Chinese Dialects II
undergraduate

CHIN 185-6 Intensive Mandarin Chinese in the China Field School
CHIN 200-3 Mandarin Chinese III
CHIN 201-3 Mandarin Chinese IV
FREN 120-3 French for Beginners
FREN 121-3 Introductory French I
FREN 122-3 Introductory French II
FREN 198-3 French for Reading Knowledge I
FREN 199-3 Writing French I: Spelling and Grammar
FREN 210-3 Intermediate French I
FREN 211-3 Intermediate French II
FREN 215-3 Intermediate French: Oral Practice
FREN 217-3 French Pronunciation
FREN 221-3 French Writing I
FREN 222-3 French Writing II
FREN 225-3 Topics in French Language
FREN 230-3 Introduction to French-Canadian Literature
FREN 240-3 Introduction to French Literature: Modern French Literature
FREN 270-3 Introduction to French Linguistics I
GERM 102-4 Introductory German I
GERM 103-4 Introductory German II
GERM 104-3 German for Reading Knowledge I
GERM 201-3 Intermediate German I
GERM 202-3 Intermediate German II
ITAL 100-3 Introductory Italian I
ITAL 101-3 Introductory Italian II
ITAL 200-3 Intermediate Italian I
ITAL 201-3 Intermediate Italian II
ITAL 300-3 Advanced Italian: Language and Culture
JAPN 100-3 Introduction to Japanese I
JAPN 101-3 Introduction to Japanese II
JAPN 200-3 Advanced Beginners’ Japanese I
JAPN 201-3 Advanced Beginners’ Japanese II
JAPN 250-3 Conversation and Composition
SPAN 102-3 Introductory Spanish I
SPAN 103-3 Introductory Spanish II
SPAN 202-3 Intermediate Spanish II

upper division

FREN 300-3 Advanced French: Oral Practice
FREN 301-3 Advanced French Composition
FREN 304-3 Advanced French Grammar
FREN 307-3 French Vocabulary
FREN 320-3 Field School: Special Topics in French I
FREN 321-3 Field School: Special Topics in French II
FREN 322-3 Field School: Special Topics in French III
SPAN 303-3 Spanish Conversation and Composition
SPAN 304-3 Advanced Spanish Conversation and Composition
SPAN 305-3 Spanish for Business

programs for study abroad

The International Studies Program requires each student to include some study abroad as part of their undergraduate education, preferably in their third or fourth years of studies. Such study can be counted toward the elective requirements with the approval of the program. Such study can occur, for example, through:
- SFU Field Schools (current field school locations include France, Fiji, Ghana, Italy, Greece, the Czech Republic, China, and Vietnam).
- Enrollment in a foreign university program. Through the office of SFU International, SFU has bilateral relations with 34 different countries and 75 participating universities. With approval from the program advisor, students may take courses abroad to fulfill some module credit requirements towards the International Studies major.
- Short-term foreign visits. Opportunities for international conferences, colloquia and research are available through the International Studies program.

Co-op Internship. Students can gain work experience in a foreign country, either for an overseas organization or for a Canadian affiliate. Other work experience includes employment through organizations such as the Department of Foreign Affairs under its internships programs. These programs include: Global Issues, International Trade, and Value and Culture. Students in good standing with a minimum GPA of 3.0 may apply to the Co-op Program after satisfactory completion of 45 credit hours. The program consists of two separate work intermediates French I and II. Arrangements are made through the Faculty of Arts and Social Sciences co-op advisor.

International Field School and Exchange Courses

The following courses are available to all students in the University for credit in approved SFU field schools or as transfer credit for courses taken abroad in an exchange program. When the topics are appropriate, these courses may be applied to International Studies degree requirements in fulfillment of module requirements. See the program advisor for the procedures for having such courses approved.

LAS 402-5 Field Study
LAS 404-3 Special Topics: Field School I
LAS 405-3 Special Topics: Field School II
IFSC 200-299-1,2,3,4,5 International Field Studies
IFSC 300-399-1,2,3,4,5 International Field Studies
IFSC 400-499-1,2,3,4,5 International Field Studies
INEX 200-299-1,2,3,4,5 International Exchange Studies
INEX 300-399-1,2,3,4,5 International Exchange Studies

Latin American Studies Program

5054 Academic Quadrangle, 604.291.3146 Tel, 604.291.5799 Fax, www.sfu.ca/las

Director
G. Otero BA (IT Monterrey), MA (Tex), PhD (Wis)
Professor Emeritus
J. Garcia Prof Lit (Peru), MA (Alta), DoctCert (Madr)
Associate Members
R.E. Boyer, History*
J. Brohammer, Geography
A. Clapp, Geography
A. Dawson, History
F. DeMaio, Sociology
M. Escudero-Faust, Sociology
G. Otero BA (IT Monterrey), MA (Tex), PhD (Wis)
Professor Emeritus
J. Garcia Prof Lit (Peru), MA (Alta), DoctCert (Madr)

Latin American Studies Program

5054 Academic Quadrangle, 604.291.3146 Tel, 604.291.5799 Fax, www.sfu.ca/las

Director
G. Otero BA (IT Monterrey), MA (Tex), PhD (Wis)
Professor Emeritus
J. Garcia Prof Lit (Peru), MA (Alta), DoctCert (Madr)

Associate Members
R.E. Boyer, History*
J. Brohammer, Geography
A. Clapp, Geography
A. Dawson, History
F. DeMaio, Sociology
M. Escudero-Faust, Sociology
G. Otero, Sociology
H. Wittman, Sociology

*emeritus
Advisor
Ms. K. Payne, 5056 Academic Quadrangle, 604.291.3726

This program, administered by the Department of Sociology and Anthropology, offers specialized contemporary Latin American courses from a multidisciplinary perspective. It provides a sound background for careers in teaching, journalism, travel, community relations, law, diplomacy, government, international trade, international development projects, as well as for those intending to pursue advanced scholarly work. An integral complement is the multidisciplinary field school in Latin America.

Minor Program

Latin American studies, an interdisciplinary program, offers students the maximum opportunity to integrate understanding of Latin America and its relationship with Canada, the Pacific Rim, and the world.

Language Requirements

Although all courses are taught in English, students must demonstrate a reading knowledge of Spanish (the equivalent of two college level courses) or Portuguese or, in exceptional circumstances, French. This is a recommended skill for upper division courses that frequently require independent investigation of specialized topics.

Lower Division Requirements

Students must complete 12 credit hours of Latin American Studies credit, including the following.

LAS 100-3 Images of Latin America
LAS 140-3 Cultural Heritage of Latin America
LAS 200-3 Introduction to Latin American Issues

Upper Division Requirements

Students must complete 15 upper division credit hours of Latin American studies, including at least 12 in LAS 300 and 400 division courses. The remaining three credit hours may be taken from upper division Latin American content courses.

Extended Minor Program

This program consists of the lower division requirements for a joint major and the upper division requirements for a minor. Students’ programs must be approved by the advisor of the program.

Joint Major Programs

An interdisciplinary joint major combines selected disciplines leading to a BA or a BBA. Courses used toward the upper division Latin American studies requirements may not be used as part of the other discipline’s credit requirements, or vice versa. The individual program disciplines are anthropology, archaeology, business administration, communication, economics, geography, history, political science, and sociology.

Language Requirements

The following courses or equivalents are required.

SPAN 102-3 Introductory Spanish I
SPAN 103-3 Introductory Spanish II
SPAN 202-3 Intermediate Spanish II

Latin American Studies Requirements

Lower Division Requirements

A minimum of 12 lower division credit hours is required including the following.

LAS 100-3 Images of Latin America
LAS 140-3 Cultural Heritage of Latin America
LAS 200-3 Introduction to Latin American Issues

The remaining three credits must be chosen from the approved list of Latin American content courses (see “Courses with Exclusive Latin American Content” on page 181).

Note: Students must also satisfy the lower division requirements of the selected joint discipline. (Please consult with appropriate department.)

Upper Division Requirements

A minimum of 40 upper division credit hours is required, including at least 20 in upper division Latin
American studies, and 20-32 upper division credits in the joint discipline selected, as specified below.

Other Discipline Requirements
To satisfy the requirements of the other joint major discipline, students must complete 20-32 credit hours, as indicated below for the specific discipline.

Anthropology
See “Joint Major in Sociology or Anthropology and Latin American Studies” on page 193.

Archaeology
Students must complete 20 credit hours in archaeology in the 300 and 400 division.

Business Administration
See “Joint Major in Business Administration and Latin American Studies” on page 204.

Communication
Students must complete 26 communication upper division credit hours, including CMNS 347, 362, and 446 and also the faculty requirements of applied sciences or arts, depending on the desired degree: bachelor of arts (Faculty of Applied Sciences) or bachelor of arts (Faculty of Arts and Social Sciences).

Economics
Students must complete 25 upper division credit hours including ECON 301, 305-5, and BUEC 333 and at least one 400 division ECON or BUEC course (excluding ECON 431, 435, BUEC 433 and 485).

Geography
Students must complete 20 geography credit hours including a minimum of eight 400-level credit hours, at least one of which should include Latin American content.

History
Students must complete 24 credit hours of 300 and 400 level history courses, of which 12 hours must be in 400 level courses. Students must take at least two courses from any two groups, and at least one from the remaining group. For a description of the three groups, see “Major Program” on page 175.

Political Science
Students must complete 32 credit hours in upper division political science, as required for political science majors. (POL 337 may not be used to satisfy LAS requirements.)

Sociology
Students must complete 20 credit hours in upper division sociology and must fulfill the sociology major program’s theory and methods requirements.

Courses with Exclusive Latin American Content
Because departments offer courses taught by faculty with different professional interests, credit will be given only when the courses are taught by instructors shown above as associated faculty. Others may be offered in addition to the those below. Consult the Latin American Studies advisor for a complete list each semester.

ARCH 273-3 Archaeology of the New World
ARCH 330-3 Prehistory of Latin America
GEOG 263-3 Selected Regions*
GEOG 486-4 Latin American Regional Development
HIST 208-3 Latin America: The Colonial Period
HIST 209-3 Latin America: The National Period
HIST 458-4 Problems in Latin American Regional History
HIST 459-4 Problems in the Political and Social History of Latin America
POI 337-4 Government and Politics: Selected Latin American Nations I
SA 321-4 Social Movements*
SA 363-4 Processes of Development and Underdevelopment

SA 392-4 Latin America
*when the selected region is Latin America

Courses with Partial Latin American Content
Partial Latin American content courses, or where Latin America may be emphasized, may fulfill requirements when the content is appropriately focused on the Latin American region. In questionable situations, consult course outlines in the general office and the Latin American Studies program advisor for specific authorization. Students wishing to take a special topics course for Latin American Studies credit should have the course approved by the co-ordinator.

CMNS 347-4 Communication in Conflict and Intervention
CMNS 444-4 Political Economy of International Communication
CMNS 446-4 The Communication of Science and Transfer of Technology
ECON 355-4 Economic Development
ECON 362-4 Economics of Natural Resources
GEOG 422-4 Geography of the Third World
HIST 104-3 History of the Americas to 1763
HIST 299-3 Problems in History
HIST 324-4 Slavery in the Americas
HIST 485-4 Studies in History I (Special Topics)
HIST 486-4 Studies in History II (Special Topics)
POL 342-4 Relations Between Developed and Developing Nations
POL 345-4 The Nation-State and the Multinational Corporation
POL 433-4 Comparative Developing Systems

Field School
This field school, unique in Canada, provides a full semester in Latin America. Students gain, through direct experience, a deeper insight into the culture, politics, and economy. Faculty and up to 30 students travel every second year to a selected location.

Co-operative Education
The program is for qualified students who wish practical experience in Latin American studies related fields. For admission, students must have completed 30 credit hours with a minimum 2.75 CGPA. Prior to admission, students should complete LAS 100, 140, 200 and SPAN 102. Transfer students must complete at least 15 semester hours at Simon Fraser. See “Co-operative Education” on page 240 for details. Arrangements for work semesters are made through the Faculty of Arts and Social Sciences co-op co-ordinator who should be consulted at least one semester in advance.

Department of Linguistics
9201 Robert C. Brown Hall,
604.291.4585 (option 1) Tel, 604.291.5569 Fax,
www.sfu.ca/linguistics, tesl@sfu.ca for Teaching English as a Second Language enquiries
Chair
Z. McRobbie UDipl, Dipl, PhD (Eötvös Loránd, Budapest), PhD (Manit)
Professors Emeriti
J.A. Foley BA (Nebraska), PhD (MIT)
E.W. Roberts BA (Wales), MA, PhD (Camb)
R. Saunders BA (Penn State), AM, PhD (Brown)
Professors
D.B. Gerds BA (Missouri), MA (Br Col), PhD (Calif)
M. Munro BEd, MSc, PhD (Alta)
F.J. Pelletier BS, MA (Nebraska), MSc, MSc (Alta),
PhD (Calif), Canada Research Chair*
Associate Professors
N. Hedberg BA, PhD (Minn)
P. McFetridge BA, MA, PhD (S Fraser)
Z. McRobbie UDipl, Dipl, PhD (Eötvös Loránd, Budapest), PhD (Manit)
T.A. Perry BA (Wabash), MA, PhD (Indiana),
Associate Dean of Arts and Social Sciences
J.M. Sosa Profit Liñang (Venezuela Central),
MA (Lond), PhD (Mass)
T. Heft I and II Statestaxen (Weingarten), MA,
PhD (S Fraser), Associate Dean of Graduate Studies
Assistant Professors
J. Alderete BA, MA, Calif, PhD (Mass)
C-H. Han BA (Ewha Woman's University, Korea), MA,
PhD (Penn)
A. Kochetov BA (Perm, Russia), MA (Pittsburgh State),
PhD (Tor)
J.D. Mellow BA (Calg), MA (McG), PhD (Br Col)
P. Pappas BA (St John’s, Maryland), PhD (Ohio State)
M. Taboada BA, MA (Complutense, Madrid), MSc
(Carnegie-Mellon), PhD (Complutense, Madrid)
Y. Wang BA, MA (NTNU), MA, PhD (Cornell)
Senior Lecturers
B. Ng BA (Int Christian, Japan), MA (Lond)
N. Omaye MA (Osaka), MPhil (Exe)
L. Zuccollo BA (Arg), MA (S Fraser)
Lecturers
C. Burgess BA, MA, PhD (S Fraser), LLB (Br Col)
S. Fieing BA (Br Col), MA (S Fraser)
Associated Faculty
M. Boelscher Ignace, First Nations Studies, Sociology
and Anthropology
P. Popovich, Computing Science
W. Turnbull, Psychology
J.W. Walls, Humanities
*joint appointment with Philosophy
Advisors
Ms. R. Parmar BA (S Fraser), 9200 Robert C. Brown
Hall, 604.291.5739
Ms. C. Papaianni BA (S Fraser), Certificate in First
Nations Language Proficiency Advisor, 6189
Academic Quadrangle, 604.291.5995
Ms. L. Hill, 6204 Academic Quadrangle, (for
Language Training Institute and Certificate in Spanish
Language Proficiency advising only), 604.291.4790
The Department of Linguistics offers honors, major, extended minor and minor programs in linguistics and participates in the interdisciplinary programs of the cognitive science program.

Program requirements for the honors, major, extended minor and minor programs are listed below. Students pursuing linguistics should seek advice early in their programs. General course descriptions are given in Undergraduate Courses.

Courses of Interest to Students Outside the Department
These general interest courses give insight into language and linguistics, and have no prerequisites.
LING 100-3 Communication and Language
LING 110-3 The Wonder of Words
LING 200-3 Introduction to the Description of English
Grammar
LING 220-3 Introduction to Linguistics
LING 260-3 Language, Culture, and Society

The following courses, although they carry prerequisites, may interest those with particular language specialties (when they focus on the language of their interest).
LING 231-3 Introduction to a First Nations Language I
**Undergraduate**

LING 232-3 Introduction to a First Nations Language II
LING 431-3 Language Structures I
LING 432-3 Language Structures II

The selected focus languages for these courses are shown in the Course Timetable and Exam Schedule for the semester in which the course is offered.

**Major Program**

**Lower Division Requirements**
LING 130-3 Practical Phonetics
LING 220-3 Introduction to Linguistics
LING 221-3 Introduction to Phonology
LING 222-3 Introduction to Syntax

plus three additional credit hours in 200 level linguistics courses.

**Upper Division Requirements**
LING 321-3 Phonology
LING 322-3 Syntax
LING 324-3 Semantics
LING 330-3 Phonetics

plus 18 additional credit hours in upper division linguistics courses.

**Honors Program**

**Lower Division Requirements**
LING 130-3 Practical Phonetics
LING 220-3 Introduction to Linguistics
LING 221-3 Introduction to Phonology
LING 222-3 Introduction to Syntax

plus three additional credit hours in 200 level linguistics courses.

**Upper Division Requirements**
LING 321-3 Phonology
LING 322-3 Syntax
LING 324-3 Semantics
LING 330-3 Phonetics

plus 35 additional hours chosen from upper division linguistics courses.

**Minor Program**

**Lower Division Requirements**
LING 130-3 Practical Phonetics
LING 220-3 Introduction to Linguistics

plus nine additional credit hours in 200 level linguistics courses.

**Upper Division Requirements**
Students must complete 15 hours of upper division linguistics courses.

**Note:** General course descriptions are given in the Undergraduate Courses section (page 181).

**Extended Minor Program**

An extended minor consists of the lower division requirements for a major and the upper division requirements for a minor. Certain other criteria may be set by individual departments and programs. A student must have their program approved by the advisor for the extended minor program.

**Joint Major in Linguistics and Anthropology**

Linguistics and anthropology are kindred disciplines, each concerned with culture, cognition and social relations. Students will acquire practical multidisciplinary expertise in anthropological aspects of language study.

The joint major is of special interest to those pursuing the certificate in First Nations language proficiency or the certificate in native studies research, as well as to students interested in the anthropology of language, anthropological linguistics, or cognitive science.

**Lower Division Requirements**

**Anthropology**

Students must complete all of
SA 101-4 Introduction to Anthropology
SA 201-4 Anthropology of Contemporary Life
SA 255-4 Introduction to Social Research
and one of
SA 100-4 Perspectives on Canadian Society
SA 150-4 Introduction to Sociology

plus four additional credit hours in a 200 level SA or A course.

**Highly Recommended**
SA 286-4 Aboriginal Peoples and British Columbia: Introduction

**Linguistics**

Students must complete both of
LING 130-3 Practical Phonetics
LING 220-3 Introduction to Linguistics

and one of
LING 241-3 Languages of the World
LING 260-3 Language, Culture and Society

plus six additional credit hours in 200 division LING courses.

Note that LING 221 and 222 are required for most upper division LING courses.

**Upper Division Requirements**

**Anthropology**

Students must complete both of
SA 301-4 Contemporary Ethnography (A)
SA 356-4 Ethnography and Qualitative Methods (SA)

plus 12 additional credit hours in upper division SA courses. The following courses are recommended.
SA 323-4 Symbol, Myth and Meaning
SA 386-4 Native Peoples and Public Policy
SA 402-4 The Practice of Anthropology
SA 472-4 Anthropology and the Past

**Linguistics**

Students must complete three of
LING 321-3 Phonology
LING 322-3 Syntax
LING 323-3 Morphology
LING 324-3 Semantics
LING 330-3 Phonetics
LING 331-3 Description and Analysis of a First Nations Language I and one of
LING 332-3 Description and Analysis of a First Nations Language II
LING 408-3 Field Linguistics
LING 409-3 Sociolinguistics

plus nine additional upper division LING credit hours. The following courses are recommended.
LING 407-3 Historical Linguistics
LING 430-3 Native American Languages
LING 441-3 Linguistic Universals and Typology

**Co-operative Education**

This program, for qualified students who wish to acquire practical experience in linguistics, entails planned study and work semesters. For admission, students must normally have completed 30 credit hours, including LING 130 and 220, and three other LING courses. At least 15 of the 30 credit hours must be completed at SFU with a minimum CGPA of 2.75. College transfer students must complete at least SFU 15 credit hours before becoming eligible for co-op education admission and must satisfy the requirements given above, or their equivalents.

College transfers who participated in co-op programs elsewhere may be credited with semester(s) already taken. The applicability of such semesters depends on the evaluation of the Department of Linguistics. The following four courses are completed during four work semesters.
LING 370-0 Linguistics Practicum I
LING 371-0 Linguistics Practicum II
LING 470-0 Linguistics Practicum III
LING 471-0 Linguistics Practicum IV

Work semester arrangements are made through the Faculty of Arts and Social Sciences co-op coordinator at least one semester in advance (see page 240). To continue in the program, students must maintain a minimum 2.75 CGPA in academic course work. Contact the department for further information.

**Certificate in First Nations Language Proficiency**

This program is for students who wish to acquire conversational and literacy skills, in a particular First Nations language, to teach this language in elementary or secondary schools, or to enhance their knowledge of a First Nations language for cultural reasons or professional objectives.

The certificate consists of 27 credit hours. At least 12 must be earned by completing courses in the First Nations language itself. The certificate can be taken on a full or part time basis. Advanced placement through course challenge to a maximum of nine credit hours is possible for fluent speakers. Credit may be applied to a specific language and is achieved by examination from an instructor in that language with the approval of the department.

**Program Requirements**

Students must complete or achieve equivalent credit for the following.
LING 130-3 Practical Phonetics
LING 220-3 Introduction to Linguistics
LING 231-3 Introduction to an Amerindian Language I
LING 232-3 Introduction to an Amerindian Language II
LING 331-3 Description and Analysis of a First Nations Language
LING 332-3 Description and Analysis of a First Nations Language

In addition, students must complete at least nine credit hours selected from the following courses.
LING 241-3 Languages of the World
LING 260-3 Language, Culture and Society
LING 280-3 First Nations Language Immersion
LING 335-3 Topics in First Nations Language I
LING 360-3 Linguistics and Language Teaching
LING 430-3 Native American Languages
LING 431-3 Language Structures I
LING 432-3 Language Structures II
LING 433-3 First Nations Language Mentoring I
LING 434-3 First Nations Language Mentoring II
LING 435-3 Topics in First Nations Language II

*these courses may only be counted towards a certificate if the subject matter of each is the same First Nations language.

Simon Fraser University 2005 • 2006
Certificate in Teaching ESL Linguistics

This certificate is for students seeking a basic introduction to principles and theory underlying current approaches to the teaching of English as a second language (TESL). The program emphasizes an understanding of linguistics and applied linguistics concepts. Successful completion of a 30 hour practicum in an adult ESL program is also required. The certificate requires at least four to five semesters to complete and may be earned concurrently with an honors, major, extended minor or minor in linguistics. While the certificate by itself is not a specific employment credential, it constitutes basic preparation for teaching English language skills to adult learners. The certificate also provides preparation for further applied linguistics and TESL studies. Those pursuing a long-term TESL career should plan to take more advanced studies upon completion of this program. Monolingual students are strongly advised to take at least two courses (six credit hours) in a language other than English.

Admission Requirements

Admission to the program is not automatic. All candidates must complete the required application form (available from the Department of Linguistics) and submit it with a statement of purpose and all other required documentation prior to one of the three deadlines (September 30, January 31, May 31) each academic year. An interview with a designated member of the linguistics department is also required. Prospective students may begin taking courses in the certificate program prior to being admitted to it. However, students are strongly advised to apply as soon as possible after completing LING 130 and 220. Students who delay their applications until late in their program of studies may find that they are unable to register in the required courses at the desired time.

In addition to meeting the normal SFU admission requirements, students must demonstrate an excellent command of spoken and written English. This requirement is more stringent than the University’s minimum English language requirement. Students whose first language is not English should consult the department for details well in advance of applying. The oral communication skills of all applicants will be assessed during the interview.

Applications are evaluated on the basis of merit. The department will consider academic standing, communication skills as assessed during the required interview, interests and motivations as identified in the statement of purpose, and personal qualities as identified during the interview. Priority will be given to students who are registered in a degree program at SFU at the time of application.

Program Requirements

The program requires successful completion of 31 credit hours as set out below, with a minimum 2.00 GPA calculated on the basis of grades in the specified required courses. Students also must complete a supervised practicum (LING 363) which includes 25 to 30 hours of experience in an adult ESL classroom.

Lower Division

Required courses
LING 110-3 The Wonder of Words
LING 130-3 Practical Phonetics
LING 200-3 Introduction to the Description of English Grammar
LING 220-3 Introduction to Linguistics

plus two of
EDUC 220-3 Introduction to Educational Psychology
LING 221-3 Introduction to Phonology

LING 241-3 Languages of the World
LING 260-3 Language, Culture, and Society

Upper Division

Required courses
EDUC 467-4 Curriculum and Instruction in Teaching English as a Second Language
LING 360-3 Linguistics and Language Teaching
LING 362-3 English as a Second Language: Theory
LING 363-3 English as a Second Language: Practice

13 credit hours

Recommended courses
EDUC 468-4 Cognition and Language in ESL Instruction
LING 350-3 First Language Acquisition

Post Baccalaureate Diploma in Teaching English as a Second Language

The Department of Linguistics and the Faculty of Education jointly offer this program. Students should apply to the departmental advisor for admission to the diploma program and should seek admission to the University separately. Applicants will be admitted by the joint steering committee consisting of members of the Department of Linguistics and the Faculty of Education under the following general requirements.

• completion of a bachelor’s degree
• demonstrated knowledge of spoken and written English. See “English Language Requirement” on page 35.
• an undergraduate concentration in one or more related disciplines such as linguistics, education, English or psychology. Completion of the certificate in TESL linguistics, or equivalent preparation is accepted as fulfilling this requirement. Students may be admitted providing they take LING 310-6 in addition to the general program requirements.
• some academic training or demonstrated ability in a language other than English

Course Requirements

Students complete a 31 credit hour minimum chosen from linguistics, education, and individual and social development. The requirements are as follows.

Linguistics

The program requires an understanding of general linguistic theory and analysis principles, English language linguistic structure and acquaintance with structures of the languages of English learners. Students must take 12 credit hours in upper division linguistics courses, consisting of any two of
LING 321-3 Phonology
LING 322-3 Syntax
LING 323-3 Morphology
LING 324-3 Semantics
LING 330-3 Phonetics

6 credit hours

Note: Students whose undergraduate record includes at least 12 credit hours from the above list or their equivalents must select approved substitutes from among 400 level linguistics courses to fulfill the requirement of six credit hours in this section. plus any two of
LING 360-3 Linguistics and Language Teaching
LING 362-3 English as a Second Language: Theory
LING 408-3 Field Linguistics
LING 431-3 Language Structures I
LING 432-3 Language Structures II
LING 441-3 Language Universals and Typology
LING 480-3 Topics in Linguistics I (when offered with a suitable topic)
LING 481-3 Languages of the World (when offered with a suitable topic)

6 credit hours

Education

Students should be conversant with the principles of language pedagogy, be able to apply this in various classroom situations, have an understanding of testing and assessment principles, and be able to apply these in classroom settings. Also required are practical experience to develop classroom skills specific to teaching English to non-native speakers.

Students are required to complete all of EDUC 467-4 Curriculum and Instruction in Teaching English as a Second Language
EDUC 470-4 Experience in Teaching Students Who Have Limited English Proficiency

8 credit hours

Note: Only students who have a current teaching placement should enroll in EDUC 470. In exceptional circumstances, alternative arrangements may be made after consultation with the steering committee.

Individual and Social Development

Theories of human development and language use, their implications for the classroom, and of the sociocultural context of learners and speakers represents a basic component in the preparation for language teaching.

Students must complete any one of the following courses that has not been completed previously.
EDUC 320-3 Instructional Psychology
EDUC 326-3 Classroom Management and Discipline
EDUC 420-4 Cognitive Strategies in Learning
EDUC 422-4 Learning Disabilities
EDUC 424-4 Learning Disabilities: Laboratory
EDUC 468-4 Cognition and Language in ESL Instruction

8-12 credit hours

Note: Those with credit for courses in this list through previous programs may not take them again for further credit. Those with prior credit for EDUC 467 or the equivalent must select an alternative from this list.

Recommended courses
EDUC 422-4 Learning Disabilities
EDUC 470-4 Experience in Teaching Students Who Have Limited English Proficiency
LING 320-3 Phonology
LING 322-3 Syntax
LING 323-3 Morphology
LING 324-3 Semantics
LING 330-3 Phonetics

6 credit hours

Note: Students who have already received credit for courses in this list through previous programs may not take them for further credit.

Note: Students who have already received credit for courses in this list through previous programs may not take them for further credit.

ITALIAN

Post Baccalaureate Certificate in Language Backgrounds in Elementary Classrooms
LING 360-3 First Language Acquisition
LING 409-3 Sociolinguistics

8-12 credit hours

Note: Those with credit for courses in this list through previous programs may not take them again for further credit. Those with prior credit for EDUC 467 or the equivalent must select an alternative from this list.

Individual and Social Development

Theories of human development and language use, their implications for the classroom, and of the sociocultural context of learners and speakers represents a basic component in the preparation for language teaching.

Students must complete any one of the following courses that has not been completed previously.
EDUC 320-3 Instructional Psychology
EDUC 326-3 Classroom Management and Discipline
EDUC 420-4 Cognitive Strategies in Learning
EDUC 422-4 Learning Disabilities
EDUC 424-4 Learning Disabilities: Laboratory
EDUC 468-4 Cognition and Language in ESL Instruction

8-12 credit hours

Note: Students who have already received credit for courses in this list through previous programs may not take them again for further credit. Those with prior credit for EDUC 467 or the equivalent must select an alternative from this list.

Individual and Social Development

Theories of human development and language use, their implications for the classroom, and of the sociocultural context of learners and speakers represents a basic component in the preparation for language teaching.

Students must complete any one of the following courses that has not been completed previously.
EDUC 320-3 Instructional Psychology
EDUC 326-3 Classroom Management and Discipline
EDUC 420-4 Cognitive Strategies in Learning
EDUC 422-4 Learning Disabilities
EDUC 424-4 Learning Disabilities: Laboratory
EDUC 468-4 Cognition and Language in ESL Instruction

8-12 credit hours

Note: Those with credit for courses in this list through previous programs may not take them again for further credit. Those with prior credit for EDUC 467 or the equivalent must select an alternative from this list.

Individual and Social Development

Theories of human development and language use, their implications for the classroom, and of the sociocultural context of learners and speakers represents a basic component in the preparation for language teaching.

Students must complete any one of the following courses that has not been completed previously.
EDUC 320-3 Instructional Psychology
EDUC 326-3 Classroom Management and Discipline
EDUC 420-4 Cognitive Strategies in Learning
EDUC 422-4 Learning Disabilities
EDUC 424-4 Learning Disabilities: Laboratory
EDUC 468-4 Cognition and Language in ESL Instruction

8-12 credit hours

Note: Students who have already received credit for courses in this list through previous programs may not take them again for further credit. Those with prior credit for EDUC 467 or the equivalent must select an alternative from this list.

EDUC 468-4 Cognition and Language in ESL Instruction

8-12 credit hours

Note: Students who have already received credit for courses in this list through previous programs may not take them again for further credit. Those with prior credit for EDUC 467 or the equivalent must select an alternative from this list.

Language Training Institute

6204 Academic Quadrangle, 604.291.4790 Tel, 604.291.4989 Fax, www.sfu.ca/lti

Director
P. McFetridge BA, MA, PhD (S Fraser)

Academic Faculty
M. Escudero-Faust, Sociology and Anthropology
T. Heft, Linguistics
B. Ng, Linguistics
N. Omae, Linguistics
J.W. Walls, Humanities
L. Zuccolo, Linguistics

Adviser
Ms. L. Hill, 6204 Academic Quadrangle, 604.291.4790, hilll@sfu.ca

The Language Training Institute promotes language skills acquisition across the University and provides facilities for language instruction through the Language Learning Centre. The Faculty of Arts and
Social Sciences, and Continuing Studies extension credit programs collaborate through the Language Training Institute to provide credit and non-credit instruction for languages which lie outside of departmental programmes.

Departments providing language instruction include the Department of French (FREN and ITAL) (page 168) and the Department of Linguistics (LING, for First Nations languages) (page 181).

The Language Training Institute offers courses in Mandarin Chinese (CHIN), German (GERM), modern Greek (GRK), Japanese (JAPN), Spanish (SPAN), as well as other languages as needed from time to time, under the general language course offerings (LANG):

LANG 100-149 (1-5) Introduction to a World Language I
LANG 150-199 (1-5) Introduction to a World Language II
LANG 200-249 (1-5) Intermediate Language Study I
LANG 250-299 (1-5) Intermediate Language Study II

Students with a language competence beyond the course level in which they are registered will be required to withdraw. Students who are unsure of their language level are responsible for having their proficiency assessed prior to course registration. Arrangements for assessment in each language will be announced before the semester begins. Consult the registration handbook or inquire at the Language Training Institute for the procedure to be followed.

Chinese native speakers (Mandarin or any Chinese dialect), or those who had secondary education within a Chinese speaking (Mandarin or any other dialect) community will not be admitted to a 100 or 200 level Chinese language course. Students who read and write Chinese but speak a dialect other than Mandarin should take CHIN 151. Students with high school Mandarin up to grade 12 will not be admitted to a 100 or 200 level Chinese language course.

Students with some prior knowledge of Chinese should see the department for a placement interview with a Chinese language instructor to be placed at an appropriate level. The department reserves the right to withdraw or to transfer a student to a higher level course should the language proficiency of the student prove greater than initially supposed.

Students whose skill level is beyond that of an SFU Chinese course are not permitted to enroll in that course. All students must receive permission to register in JAPN courses, except for those students who have completed the course’s prerequisites.

Contact the Language Training Institute for information about current specific language offerings.

Undergraduate

Language Course Placement

Students with Spanish language knowledge may take a short test to determine appropriate language course placement. The test is also used to advise of obtaining advanced placement or challenge credit. Students will not usually take courses below the level in which they have been placed. Native Spanish speakers or students who received their secondary education entirely within a Spanish speaking community will not normally be admitted to a 100 or 200 level Spanish language course.

Students who have completed the Spanish 12 program in Canadian high schools will not be admitted to Spanish 102. (Please contact Advisor about challenge credits.)

Call the Language Learning Centre to make a placement test appointment.

Certificate in Spanish Language Proficiency

This program is for elementary and secondary school teachers and undergraduates wishing to improve Spanish oral and written proficiency. Note that Spanish is not considered a ‘teachable subject’ for professional development program (secondary) application. It is also for those who want to enhance language knowledge for cultural, professional or employment purposes, or who desire official certification of Spanish proficiency. However, this is not for native Spanish speakers.

Full or part time courses are offered during the day and evening. Additionally, a sequential offering of courses is scheduled, subject to sufficient enrolment, at the Harbour Centre site each semester.

Requirements

Students must successfully complete all of LAS 100-3 Images of Latin America
SPAN 102-3 Introductory Spanish I
SPAN 103-3 Introductory Spanish II
SPAN 201-3 Intermediate Spanish I
SPAN 202-3 Intermediate Spanish II
SPAN 303-3 Spanish Conversation and Composition
SPAN 304-3 Advanced Spanish Conversation and Composition
SPAN 305-3 Spanish for Business
plus one of
LAS 140-3 Cultural Heritage of Latin America
LAS 200-3 Introduction to Latin American Issues
LAS 300-3 Latin American Literature

Notes: Exemption of up to 12 credit hours maximum from lower division Spanish language courses is possible through Advanced Placement; students must demonstrate equivalent preparation. The exempted courses are replaced with credit obtained by:
- approved transfer credit for Spanish courses taken at another post-secondary institution (subject to University regulations governing transfer credit approval), up to a maximum of six credit hours
- challenge credit for exempted courses (subject to University regulations governing challenge credit approval), up to a maximum of 6 credit hours
- successful completion of other Spanish courses at Simon Fraser University, excluding SPAN 300.

Students who gain or hope to gain exemption should consult the program co-ordinator or the departmental assistant early in their program. Credit for this certificate may apply toward degree requirements under normal regulations but cannot be applied toward another SFU certificate or diploma.

Mathematics Program

K10512 Shrum Science Centre,
604.291.3332/3333 Tel, 604.291.4947 Fax,
www.math.sfu.ca

Professors

M. Fiess, K10512 Shrum Science Centre,
604.291.3332 (for registration advice)

Mrs. M. Finkboner BA (Occidental), MSc (S Fraser),
K10511 Shrum Science Centre, 604.291.4849/3332

Additional advisors are available for consultation. Please check the posted list outside the department's general office, or consult the Department of Mathematics website at www.math.sfu.ca.

Students wishing to major in any of the programs sponsored by the Department of Mathematics should seek advice early in their academic careers about program planning from department faculty advisors.

For course descriptions and prerequisites, see “Mathematics MATH” on page 418, “Mathematics and Computing Science MACM” on page 422 and “Management and Systems Science MSSC” on page 416.

The Department of Mathematics offers a program of study within the Faculty of Arts and Social Sciences leading to a bachelor of arts degree with a major or honors in mathematics. Students interested in a bachelor of science in mathematics should see page 224 in the Faculty of Science section.

Requirements for the bachelor of arts in mathematics are set out below.

General Regulations

Students majoring or taking honors in mathematics for a BA must satisfy the requirements found in the Calendar entry for the Faculty of Arts and Social Sciences. They must also satisfy general University cumulative grade point average and credit hour requirements. See “Mathematics MATH” on page 418 for entry level course requirements and department workshops.

Prerequisite Grade Requirement

To register in a course offered by the Department of Mathematics, a student must obtain a grade of C- or better in each university level prerequisite course.

Major and Honors Programs

Lower Division Requirements

Students must complete either
CMPT 123-3 Introduction to Computer Science and Programming
or both of
CMPT 120-3 Introduction to Computing Science and Programming I
CMPT 125-3 Introduction to Computing Science and Programming II
and all of
MACM 101-3 Discrete Mathematics I
MACM 201-3 Discrete Mathematics II
MACM 202-4 Mathematical Modeling and Computation
MATH 151-3 Calculus I
MATH 152-3 Calculus II
MATH 222-3 Elementary Linear Algebra
MATH 242-3 Introduction to Analysis I
MATH 251-3 Calculus III
STAT 270-3 Introduction to Probability and Statistics

Note: With a C grade or better in the relevant course, these substitutions are permitted: MATH 154 or 157 for MATH 151, MATH 155 or 158 for MATH 152. However, where possible, students should take MATH 151 and 152. A grade of C– or higher in MATH 242 is
required for admission to the mathematics major or honors programs.

Upper Division Requirements
All students must take at least one from each of the following four groups of courses.

one of MATH 308-3 Linear Optimization
MATH 343-3 Applied Discrete Mathematics
MATH 345-3 Introduction to Graph Theory
and one of MATH 320-3 Introduction to Analysis II
MATH 322-3 Complex Variables
and one of MATH 332-3 Introduction to Applied Algebraic Systems
MATH 342-3 Elementary Number Theory
and one of MATH 310-3 Introduction to Ordinary Differential Equations
MACM 316-3 Numerical Analysis I

BA mathematics major students must obtain at least 30 credit hours in upper division mathematics (MATH), or mathematics/computing science (MACM), or PHYS 413, or from the following list of statistics (STAT) and actuarial mathematics (ACMA) courses: ACMA 310, STAT 330, 350, 380, 402, 430, 450 and 460.

If the 30 credit hour minimum total requirement for the mathematics major, at least 24 must come from MATH or MACM courses. At least three of the courses used to satisfy this 30 credit hour requirement must be at the 400 division level, of which at least two must be division MATH or MACM courses. Students may not use a directed studies, job practicum, or honors essay course to fulfill the 400 division requirement.

Honors Program Specific Requirements
In addition to the requirements for the major program, BA honors students must take CMPT 225 and MATH 252 and obtain at least 18 additional credit hours in upper division mathematics (MATH), or mathematics/computing science (MACM), or STAT courses, or from the list of approved STAT and ACMA courses listed under Upper Division Requirements for the Mathematics Major Program. Of this minimum 48 upper division credit hours, at least 36 must come from MATH or MACM courses.

At least five of the courses used to satisfy the 48 credit hour requirement must be at the 400 division level, of which at least three must be 400 division MATH or MACM courses. Students may not use a directed studies, job practicum, or honors essay course to fulfill the 400 division requirement.

Note: Major or honors mathematics students are advised to take an upper division statistics course and an upper division MACM or CMPT course.

Majors and Honors Program Electives
The student’s program should include at least 65 credit hours in arts subjects. Department of Mathematics courses may be counted. Also, the Faculty of Arts and Social Sciences breadth requirements must be met. Students taking a major must complete at least 45 upper division hours including the major program requirements. Honors students must complete at least 60 upper division credit hours including the honors requirements.

Minor Program
For requirements, see “Department of Mathematics” on page 224 in the Faculty of Science section.

Extended Minor Program
This program consists of the lower division requirements for a major and the upper division requirements for a minor. A student must have their program for the extended minor approved by the one of the department’s advisors.

Department of Philosophy
4604 Diamond Building, 604.291.3343 Tel, 604.291.4443 Fax, www.sfu.ca/philosophy
Chair
P.P. Hanson BA (Calg), MA, PhD (Prin)
Professors Emeriti
R.D. Bradley BA, MA (Auck), PhD (ANU)
S. Davis BA (Roch), MA, PhD (Ill)
L. Resnick BA, PhD (Cornell)
N.M. Swartz BA (Harv), MA, PhD (Indiana)

Professors
R.E. Jennings BA, MA (Qu), PhD (Lond)
F.J. Pelletier BS, MA (Nebraska), MSc, MSc (Alta), PhD (Calif), Canada Research Chair**
D. Zimmerman BA, MA, PhD (Mich)

Associate Professors
K. Akins BA (Manit), PhD (Mich)
S. Black BA (C’Dla), PhD (Camb)
M. Hahn BA (S Fraser), MA (Br Col), PhD (Calif)
P.P. Hanson BA (Calg), MA, PhD (Prin)
O. Schulte BSc (Tor), MS, PhD (Carnegie Mellon)*

Assistant Professors
K. Laird BA (Lond), DPhil (Oxf)
L. Shapiro BA (Wesleyan), PhD (Pitts)
E. Tiffany BA (Aubon), PhD (Calif)

Senior Lecturers
P.T. Horban BA (Sask), MA, PhD (WCol)
J.S. McIntosh BA (S Fraser), PhD (Br Col)

Advisor
M. Bevington, 4625 Diamond Building, 604.291.4852

*joint appointment with computing science
**joint appointment with linguistics

General Information
All 100 division courses (and PHIL 001) improve skills in critical thinking, logical analysis and clarity of expression, have no prerequisites, may be taken in any order by any student in any faculty, and teach some of the most important philosophical problems and methods. All 100 division courses bear on particular problems and subjects encountered in other areas of study.

The 200 division courses are slightly more advanced with more specific subject matter. It is recommended (not mandatory) that students have completed 15 credit hours of university work or equivalent before enrolling in a 200 division philosophy course. (PHIL 203 and 214 have additional prerequisites.) For 300 and 400 division courses, students normally must have at least six credit hours of higher division philosophy before taking upper division. However, for those majoring in other departments who have a keen interest in a particular upper division course, this requirement may be waived by the department. Four hundred division courses are more advanced than 300 division courses (there is more reading, the reading is more difficult, and more writing is required). Students should take at least two 300 division courses before enrolling in a 400 division course.

Major Program
Lower Division Requirements
Students are required to complete at least 16 credit hours of lower division credit including all of PHIL 100-3 Knowledge and Reality
PHIL 120-3 Introduction to Moral Philosophy
PHIL 203-3 Metaphysics
PHIL 210-4 Natural Deductive Logic

Upper Division Requirements
Students are required to complete at least 30 credit hours upper division credit including the following courses.

PHIL 301-3 Epistemology
PHIL 320-3 Social and Political Philosophy
PHIL 321-3 Moral Issues and Theories
PHIL 421-4 Ethical Theories

Honors Program
This program is for those interested in advanced work in philosophy, and is strongly advised for students who plan a postgraduate degree in philosophy.

Course Requirements
Entering students must first complete 60 credit hours including 16 of philosophy, must fulfill lower division philosophy major requirements as listed above, and complete PHIL 301. A 3.0 GPA or higher for all philosophy courses is expected for entrance and continuation but does not by itself guarantee either. Students proposing honors must submit an application (available in the department office), and consult the advisor. After one honors semester, a candidate must, in consultation with the advisor, devise a study program. Consideration of the application and proposed study program is based on assessment of the potential for advanced work.

Students pursuing honors must complete
• the philosophy major program requirements
• at least 50 philosophy upper division credit hours
• and two honors tutorials in the last semester, or last two semesters, of the program

Tutorials offer sufficient time to examine in-depth several philosophical topics in a general area such as ethics, metaphysics, philosophy of mind, etc. The honors candidate must achieve a grade of B or higher in each honors tutorial to receive the honors degree.

Minor Program
Course Requirements
Students must complete at least eight philosophy courses including at least five in the upper division. These courses may be either an individually designed program or those given in the core program below.
one of
PHIL 100-3 Knowledge and Reality
PHIL 110-3 Introduction to Logic and Reasoning
all of
PHIL 120-3 Introduction to Moral Philosophy
PHIL 203-3 Metaphysics
PHIL 301-3 Epistemology
plus at least four additional upper division courses
With the undergraduate advisor, a student may design a minor program with an emphasis that complements a special interest. For example, programs may be designed for students with an interest in law, language, natural or social science, history of ideas, social theory, value theory or logic.

Extended Minor Program
This program consists of the lower division requirements for a major and the upper division requirements for a minor. Program approval by the advisor is required.

Joint Major in Philosophy and Humanities
See page 186 for program information.

Seminars and Special Topics Courses
A student may not enroll in a philosophy seminar or selected topics course which deals with a general topic for which the student has received credit in another philosophy seminar or special topics course.

Reading Lists and Course Outlines
Reading lists and course outlines are available at the general office. Some course content varies.

Program in Cognitive Science
See page 152 for program information.

Upper Division Courses Listed by Field (partial listing)

Epistemology and Metaphysics
The following two courses are continuations of PHIL 100 and 203 at a more advanced level.

PHIL 301-3 Epistemology
PHIL 454-3 Contemporary Issues in Epistemology and Metaphysics

Logic
The following two courses offer concentrated work in logic and are continuations of PHIL 210 and 214.

PHIL 310-3 Modal Logic and Its Applications
PHIL 314-3 Topics in Logic I

Ethics
The following are continuations of PHIL 120 and 220, and present a wide range of issues and topics in ethics, and in political and social philosophy.

PHIL 320-3 Social and Political Philosophy
PHIL 321-3 Moral Issues and Theories
PHIL 421-4 Ethical Theories

History of Philosophy
The following are continuations of PHIL 150 and 151, and examine, at a more advanced level, the philosophical foundations of Western culture.

PHIL 350-3 Ancient Philosophy
PHIL 353-3 Locke and Berkeley

PHIL 354-3 Descartes and Rationalism
PHIL 355-3 Hume and Empiricism
PHIL 451-4 Kant
PHIL 453-4 Background to Analytical Philosophy

Methodology, Science, Mind, Language
The following five courses introduce special areas of philosophical interest.

PHIL 340-3 Philosophical Methods
PHIL 341-3 Philosophy of Science
PHIL 343-3 Philosophy of Mind
PHIL 344-3 Philosophy of Language I
PHIL 444-4 Philosophy of Language II

Department of Political Science
6067 Academic Quadrangle, 604.291.4293 Tel,
604.291.4786 Fax, www.sfu.ca/politics

Chair
D. Laycock BA (Alta), MA, PhD (Tor)

Professors Emeriti
T.H. Cohn BA (Mich), MA (Wayne), PhD (Mich)
E. McWhinney QC, LLM, SJD (Yale)

T.L. Quo BA (Natl Taiwan), MA (Oregon), PhD (S Illinois)
M. Robin BA (Mant), MA, PhD (Tor)
A.H. Somjee MA (Agra), PhD (Lond)

L.J. Cohen BA, MA (Ill), PhD (Col)
C.A. Covell BA (Br Col), MA, PhD (Yale)
L.J. Erickson BA, PhD (Alta)
M. Griffin Cohen BA (Iowa Wesleyan), MA (NY), PhD (York, Can)*

M. Howlett BSocSci (Ont), MA (Br Col), PhD (Qu)
D. Laycock BA (Alta), MA, PhD (Tor)
S. McBride BSc (Lond), MA, PhD (Mcm)

P. Meyer BA (Wellesley), MA, PhD (Col)
A. Moens BA (Leth), MA (Mcm), PhD (Br Col)
D.A. Ross BA, MA, PhD (Tor)
P.J. Smith BA, MA (Mcm), PhD (Lond)
H.M. Stevenson BA (Witw), MA (Mich), PhD (Northwestern)

Associate Professors
J. Busumtwi-Sam BA (Ghana), MA (Brock), PhD (Tor)
L. Dobuzinski LSsEcon (Paris), PhD (York, Can)

O. Hankovsky BA (Tori), MA, PhD (Wont)
A. Heard BA (Dali), MSc (Lond), PhD (Tor)
A. Hira BA (Georgetown), MA (G Washington), PhD (Claremont)
T. Kawasaki LLB (Doshisha), MA (Tor), PhD (Prin)**

S.J. Maclem BSc, MA, PhD (Dali)

Assistant Professor
D. Cohn BA (Car), MScS (Stockholm), PhD (Car)

Mrs. C. Sauru, 6072 Academic Quadrangle,
604.291.3858, sauro@sfu.ca

**joint appointment with women’s studies
**joint appointment with interdisciplinary studies

Several programs are offered: honors, major, joint major, extended minor, minor. Students’ programs must meet the Faculty of Arts and Social Sciences breadth requirements. Please see “Breadth Requirements” on page 145.

Students may not take upper division courses until the appropriate lower division prerequisites are completed. Specified prerequisites or department permission is required for entry into these courses. Students who fulfill the requirements may also take POL 497, 498 and 499.

Fields of Study
The introductory course is POL 100. All others except POL 498 and 499 are divided into five fields of study.

Field A Political Theory
POL 201-3 Research Methods in Political Science
POL 210-3 Introduction to Political Philosophy
POL 211-3 Politics and Ethics

POL 312-4 History of Political Thought II
POL 313-4 Political Ideologies
POL 314-4 Theory and Explanation in Political Science

POL 315-4 Quantitative Methods in Political Science**

POL 319-4 Selected Topics in Political Theory
POL 411-4 Normative Political Theory
POL 414-4 Theories of Political Development

POL 415-4 The Liberal Tradition
POL 416-4 Feminist Social and Political Thought

POL 417-4 Human Rights Theories

POL 418-4 Selected Topics in Political Theory I*

POL 419-4 Selected Topics in Political Theory II*

*these courses may require special prerequisites

**SA 355 may substitute for POL 315

Field B Canadian Government and Politics
POL 221-3 Introduction to Canadian Government

POL 222-3 Introduction to Canadian Politics

POL 321-4 The Canadian Federal System

POL 322-4 Canadian Political Parties

POL 323-4 Provincial Government and Politics

POL 324-4 The Canadian Constitution

POL 327-4 Globalization and the Canadian State

POL 329-4 Selected Topics in Canadian Government and Politics

POL 347-4 Introduction to Canadian Foreign Policy

POL 422-4 Canadian International Security Relations

POL 423-4 BC Government and Politics

POL 424- Quebec Government and Politics

POL 426-4 Canadian Political Behaviour

POL 428-4 Selected Topics in Canadian Government and Politics*

POL 429-4 Selected Topics in Canadian Government and Politics II*

*these courses may require special prerequisites.

Field C Comparative Government and Politics

POL 231-3 Introduction to Comparative Government and Politics

POL 232-3 US Politics

POL 333-4 Soviet and Post-Soviet Political Systems

POL 334-4 East European Political Systems

POL 335-4 Government and Politics: People’s Republic of China I

POL 336-4 Government and Politics: People’s Republic of China II

POL 337-4 Government and Politics: Selected Latin American Nations I

POL 339-4 Selected Topics in Comparative Government and Politics

POL 381-4 Politics and Government of Japan I

POL 431-4 Comparative Western European Systems

POL 432-4 Comparative Communist and Post-Communist Political Systems

POL 433-4 Comparative Developing Systems

POL 435-4 Comparative Federal Systems

POL 436-4 Elections, Parties and Governments in Comparative Perspective

POL 438-4 Selected Topics in Comparative Government and Politics I*

POL 439-4 Selected Topics in Comparative Government and Politics II*

POL 441-4 Comparative Foreign Relations: Selected Political Systems

POL 481-4 Ethnic Politics and National Identity: Comparative Perspectives

POL 483-4 Political Economy of Latin American Development

*these courses may require special prerequisites
Upper Division Requirements
Students complete 32 upper division POL credit hours. Eight of these 32 credit hours must be at the 400 level. This allows a student to concentrate course work in one field of study while attaining a broader understanding of the political science discipline.

Honors Program
Students with a 3.0 CGPA and an upper division GPA of 3.33 are encouraged to apply for the honors program. A complete application, available from the departmental advisor, includes the essay proposal for POL 499 (Honors Thesis) and a letter of evaluation from the faculty member who agrees to supervise and evaluate the essay. Once the application is submitted, it is reviewed by the undergraduate studies committee in the semester prior to honor program entrance.

Lower Division Requirements
Students must complete:
POL 100-3 Introduction to Politics and Government
POL 210-3 Introduction to Political Philosophy
and one of
POL 101-3 Introduction to Canadian Public
POL 102-3 Introduction to Canadian Government

In addition, 9 lower division POL credit hours, covering at least three of the five fields of study, are required.

Lower Division Requirements
Students must complete:
POL 100-3 Introduction to Politics and Government
POL 210-3 Introduction to Political Philosophy
and one of
POL 201-3 Research Methods in Political Science

If students plan to take both POL 201 and STAT 203, a field A credit may be claimed for POL 201. In this case, POL 201 should be taken before STAT 203.

Major Program

Lower Division Requirements
Students must complete
POL 100-3 Introduction to Politics and Government
and one of
POL 201-3 Research Methods in Political Science

Upper Division Requirements
Students must complete 32 upper division POL credit hours, including five for POL 499 (Honors Essay). An additional 16 of these 3 must be at the 400 level. POL 315 is strongly recommended.

French Language Cohort Program in Public Administration and Community Services
This cohort program, leading to a political science major with a French extended minor, or a French major with a political science extended minor, is primarily for French immersion and Francophone students who wish to develop their French language ability. It is most suitable for those entering directly from secondary school who plan to undertake full time study over a four year period. The program prepares students for French language public administration and community service careers, and for graduate study in political science or public administration.

Cohort Program
A feature of this program is the group cohort setting where program students work together in the same specially designed cohort courses. Cohort specific courses and course sections will be offered in French, while some required and elective courses will be taught in English. The program steering committee will each year publish a list of designated program courses, including the language of instruction and the schedule of course offerings.

In addition, one semester at a Francophone university is included in this program.

Designated Courses
Specific courses designated as part of the cohort program and the specified language of instruction may vary from time to time. Required courses, as set out below, are designated as cohort specific (cs), are taught in French, and will normally be open only to cohort students. Regular (r) courses will be taught in English, except for those in the Department of French, which will be taught in French.

Political Science Major, French Extended Minor Program Requirements

Lower Division Requirements
Students must complete 18 political science credit hours of political science, as follows, of which four courses will be taught in French.

Spanish as follows, including four cohort-specific courses.

FREN 212-3 French for Immersion Program
FREN 221-3 French Writing I (cs)*
FREN 222-3 French Writing II (cs)
FREN 225-3 Topics in French Language (cs)
FREN 230-3 Introduction to French-Canadian Literature (r)
FREN 270-3 Introduction to French Linguistics I (r)

"Students receiving advanced placement above the level of this course may receive permission to waive or challenge it.

Upper Division Requirements
Students must complete 32 credit hours of political science courses, including the four cohort-specific courses as shown below.

FREN 329-4 Selected Topics in Canadian Government and Politics
FREN 359-4 Selected Topics in Governance

FREN 497-4 Directed Practice in Political Science

An additional four upper division political science courses are required, which must include one course in the field of Canadian government (cs), and one in the field of public policy/administration and local government (POL 351 is recommended). Normally, two of these courses, equivalent to at least 8 credit hours, will be selected from transferable
political science courses offered at the institution hosting the Francophone semester.

Students must also complete an additional 15 credit hours of French as specified below.

Students complete
FDN 301-3 Advanced French Composition
and one of
FDN 425-3 Topics in the Varieties of French
FDN 452-3 Topics in French Cultures

A further nine credit hours of French, to be chosen from among the remaining courses at the 300 and 400 division, must be completed. (FDN 360 and/or 370 may be taken in partial fulfillment of this requirement.)

Additional Requirements
In addition, up to 17 credit hours in other departments may be chosen from lower or upper division courses. Such additionally designated courses will usually be taught in French, and will be subjects directly related to the program. These additional courses will be designated at the beginning of each entering cohort. Overall, cohort students may expect at least 80 credit hours of instruction in French.

French Major, Political Science Extended Minor Program Requirements

Lower Division Requirements
These requirements are the same as those shown above for the political science major, French extended minor program.

Upper Division Requirements
Students must complete 16 credit hours of political science courses for the extended minor and 32 credit hours of French courses, including all requirements for the French major (see "Honors, Major, Extended Minor Programs" on page 168).

Additional Cohort Requirements
The courses listed below are those that will typically be required to complete the cohort program. Other appropriate courses may occasionally be substituted.

History
HIST 101-3 Canada to Confederation (r)
HIST 102-3 Canada Since Confederation (cs)
HIST 204-3 The Social History of Canada (cs)

Canadian Studies
CNS 201-3 Foundations of Canadian Culture (cs)

Humanities
HUM 321-4 The Humanities and Critical Thinking (cs)

Electives
The courses listed as cohort requirements constitute 99 credit hours, 81 of which will be obtained through courses taught in French (as outlined above). The remaining required 21 credit hours may be chosen from other university courses. Students intending to pursue graduate work, or a career in public administration, are advised to include ECON 103, 105, and STAT 203 among their electives. Students should also be aware of general university requirements when planning their electives. Assistance in planning electives to meet additional program requirements is available from the cohort program advisor.

Alternate Program Path
Students may complete the first three years of the full cohort program which leads to a major in political science with an extended minor in French. They may, however, opt in the fourth year to pursue a major in French or another major program that may qualify the student to enter the Professional Development Program. Students are urged to check with the cohort program advisor if they wish to exercise this option.

Minor Program

Lower Division Requirements
Students must complete POL 100 and at least nine additional credit hours in lower division POL courses.

Upper Division Requirements
Students are required to complete 16 upper division credit hours in any of the fields of study.

Extended Minor Program
This program is based on the lower division requirements (100 and 200 level courses) of the major program and the upper division requirements (300 and 400 level courses) of the minor program.

Joint Major in French, History and Politics

Please see "Joint Major in French, History and Politics" on page 170 for information.

Joint Major in Political Science and Canadian Studies

The lower division requirements are identical to the political science major program except that students are encouraged but not required to take POL 201 or STAT 203. Political science upper division requirements follow. Students complete 32 credit hours in three of five fields of study. Up to 12 credit hours that are available for credit in both political science and Canadian studies may count toward upper division requirements of both departments. See the political science or Canadian studies advisor or see "Joint Major Programs" on page 150.

Joint Major in Political Science and Economics

This program explores the fields of political science and economics, and develops an appreciation of the ways in which economic and political phenomena condition and interact in the modern world. Consult advisors in both departments.

Lower Division Requirements

Political Science
Students must complete all of POL 100-3 Introduction to Politics and Government POL 221-3 Introduction to Canadian Government POL 222-3 Introduction to Canadian Politics POL 251-3 Introduction to Canadian Public Administration

plus one of
BUEC 232-3 Elementary Economic and Business Statistics I
CRIM 220-3 Research Methods in Criminology
POL 201-3 Research Methods in Political Science
PSYC 201-4 Research Methods in Psychology
SA 255-3 Introduction to Research Methods

Statistics
STAT 203-3 Introduction to Statistics for the Social Sciences

plus six lower division credit hours taken from at least one of the remaining fields of study (field A, C or D) for a total of 21 credit hours.

*recommended

Economics
Students must complete the following with a grade of at least C- prior to joint major program admission.

BUEC 232-3 Elementary Economic and Business Statistics I
ECON 103-3 Principles of Microeconomics
ECON 105-3 Principles of Macroeconomics
MATH 110-3 Introductory mathematics for the Social and Management Sciences
MATH 157-3 Calculus for the Social Sciences (or equivalent)

plus
• two 200 division ECON or BUEC courses in addition to BUEC 232
• one 000, 100 or 200 ENGL or PHIL course
• one 100 or 200 level HIST or POL course (fulfilled by political science requirements listed above)
• one 100 or 200 level SA or PSYC course
• one 100 or 200 level BiSc, CHEM or PHYS course

Upper Division Requirements

Political Science
Students complete 24 credit hours from at least three political science fields of study, including a minimum of eight credit hours (two courses) in field E. Beyond field E, the following are highly recommended.

POL 313-4 Political Ideologies
POL 321-4 The Canadian Federal System
POL 342-4 Relations Between Developed and Developing Nations
POL 343-4 Global Political Economy
POL 345-4 The Nation-State and the Multinational Corporation
POL 427-4 The Legislative Process in Canada
POL 447-4 Theories of International Political Economy

Economics
Students complete at least 25 credit hours of upper division credit in economics including all of
BUEC 333-3 Elementary Economic and Business Statistics II
ECON 301-3 Microeconomic Theory I: Competition Behavior
ECON 305-5 Intermediate Macroeconomic Theory and at least one 400 division ECON or BUEC course (excluding ECON 431, 435 and BUEC 433).

Finally, to meet the Department of Economics' group requirements for the economics major program, students must take at least one of
ECON 102-3 The World Economy
ECON 110-3 Foundations of Economic Ideas
ECON 208-3 History of Economic Thought
ECON 250-3 Economic Development in the Pre-Industrial Period
ECON 309-5 Introduction to Marxian Economics
ECON 353-4 Economic History of Canada
ECON 355-4 Economic Development
ECON 395-5 Comparative Economic Systems
ECON 404-3 Honors Seminar in Methodology of the Social Science
ECON 407-3 Seminar in Marxian Economics
ECON 409-3 Seminar in Economic Thought
ECON 450-3 Seminar in Quantitative Economic History
ECON 451-3 Seminar in European Economic History
ECON 455-3 Seminar in Economic Development

Joint Major in Political Science and Latin American Studies

Political science requirements are identical to the major program except that students are encouraged but not required to take POL 201 or STAT 203. POL 337 may not be used to satisfy Latin American studies requirements. For further information see the political science or Latin American studies advisors. For details, see “Joint Major Programs” on page 180.
Joint Major in Political Science and Women's Studies
This program explores the political dimensions and context of women’s experience, and the impact of women and feminist theory on the practice and study of politics. Consult advisors in both departments.

Lower Division Requirements
Political Science
POL 100-3 Introduction to Politics and Government plus one of BUEC 232-3 Elementary Economic and Business Statistics I CRIM 220-3 Research Methods in Criminology POL 201-3 Research Methods in Political Science* PSYC 201-4 Introduction to Research Methods in Psychology
SA 255-4 Introduction to Social Research
STAT 203-3 Introduction to Statistics for the Social Sciences
STAT 270-3 Introduction to Probability and Statistics

plus an additional nine credit hours of lower division courses taken from three of the five fields of study (field A, B, C, D and/or E), for a total of 15 lower division credit hours.

*recommended
Women's Studies
WS 101-3 Introduction to Women's Issues in Canada
WS 102-3 Introduction to Western Feminisms
plus three of WS 200-3 Women in Cross Cultural Perspectives
WS 201-3 Women in Canada, 1600-1920
WS 202-3 Women in Canada, 1920 to the Present
WS 203-4 Female Roles in Contemporary Society
WS 204-3 Women, Science and Technology
WS 205-3 Women and Popular Culture
WS 206-3 Women’s Issues in Health and Health Care

Upper Division Requirements
Political Science
Students must complete 24 upper division credit hours from at least three political science fields of study. It is strongly recommended that POL 416 be included in this selection.

Women's Studies
Students must complete 20 credits in upper division women's studies courses including one of WS 400, 405 or 412. Students who have taken WS 311 or 312 have met this requirement.

Co-operative Education Program
Co-operative education helps qualified students to obtain practical experience related to their political science studies. It entails planned study semesters and employment, and is competitive. Not all applicants participate in exactly the placements they choose, but the co-op program does endeavor to provide a placement to all qualified applicants.

J.W. MacDonald BA (Detroit), MS, PhD (Wyoming)
J. Martzke BS (Wis), MA, PhD (Iowa)
D.J. Meen BAMS (Alta), PhD (Manit)
J. Ogloff BA (Calg), MA (Sask), PhD, JD (Nebr)
M.C. Olley BA (Sask), MA, PhD (S Fraser)
G. Poole BA (S Fraser), MA (San Diego), PhD (SF)
D. Slick BS (Alaska), MSc, PhD (Vic, BC)
K. Tee BA (Br Col), MA, PhD (S Fraser)
J. Ternes BA (Wat), MA, PhD (Br Col)
G. Tien BSc, MA (S Carolina), PhD (S Fraser)
R.S. Tonkin MDCM, FRCP, OBC
T. Woodward BSc, MA, PhD (Vic, BC)

Associate Members
R. Corrado, Criminology
A. Horvath, Education
M. Jackson, Criminology
J. Martin, Education
N. O’Rourke, Gerontology
F.J. Pelletier, Philosophy
J. Sugarman, Education
H. Weinberg, Kinesiology

Senior Lecturers
G. Alder BA (S Fraser), MSc, PhD (Calg)
R. Day BA (Vic, BC), MA (Guelph), PhD (S Fraser)
L.J. Foster BA (Br Col), MA (New Br)

Advisors
Ms. L. Physick, 5253 Robert C. Brown Hall, 604.291.3359
Ms. B. Davino, 5249 Robert C. Brown Hall, 604.291.4840

*joint appointment with Riverview Hospital

Letters of Permission
See “General Information” on page 29. The department does not normally approve letters of permission for students already registered at SFU to take PSYC 201, 210 and 301 at a different institution. Such permission may be granted for other 100 to 300 division courses. Direct all enquiries to the psychology undergraduate advisor.

Major Program
To be admitted to the major program, students must obtain a final course grade of C (2.0) or better in each of the following courses.

PSYC 100-3 Introduction to Psychology I
PSYC 102-3 Introduction to Psychology II
PSYC 201-4 Introduction to Research Methods in Psychology
PSYC 207-3 Introduction to History of Psychology
PSYC 210-4 Introduction to Data Analysis in Psychology

Note: The above requirement applies to courses transferred from other institutions as well as to courses taken at Simon Fraser University.

PSYC 100 should be taken in the first semester and PSYC 102 should follow PSYC 100 as early as possible. (Concurrent registration in PSYC 100 and 102 is not permitted.) PSYC 201 and 210 should be taken during the first four semesters.

To receive a major in psychology, students must
• meet the graduation requirements of the University (see “Grade Point Averages Needed for Graduation” on page 50) and Faculty of Arts and Social Sciences (see “Graduation GPA Requirements” on page 146)
• complete one course from each group

Group A – PSYC 221 or 280
Group B – PSYC 241, 250, 260, 268, 270
• complete 30 upper division psychology credit hours.
• complete 15 upper division psychology credit hours must be completed at SFU.

G. Alder BA (S Fraser), MSc, PhD (Calg)
R. Day BA (Vic, BC), MA (Guelph), PhD (S Fraser)
L.J. Foster BA (Br Col), MA (New Br)

Advisors
Ms. L. Physick, 5253 Robert C. Brown Hall, 604.291.3359
Ms. B. Davino, 5249 Robert C. Brown Hall, 604.291.4840

*joint appointment with Riverview Hospital

Letters of Permission
See “General Information” on page 29. The department does not normally approve letters of permission for students already registered at SFU to take PSYC 201, 210 and 301 at a different institution. Such permission may be granted for other 100 to 300 division courses. Direct all enquiries to the psychology undergraduate advisor.

Major Program
To be admitted to the major program, students must obtain a final course grade of C (2.0) or better in each of the following courses.

PSYC 100-3 Introduction to Psychology I
PSYC 102-3 Introduction to Psychology II
PSYC 201-4 Introduction to Research Methods in Psychology
PSYC 207-3 Introduction to History of Psychology
PSYC 210-4 Introduction to Data Analysis in Psychology

Note: The above requirement applies to courses transferred from other institutions as well as to courses taken at Simon Fraser University.

PSYC 100 should be taken in the first semester and PSYC 102 should follow PSYC 100 as early as possible. (Concurrent registration in PSYC 100 and 102 is not permitted.) PSYC 201 and 210 should be taken during the first four semesters.

To receive a major in psychology, students must
• meet the graduation requirements of the University (see “Grade Point Averages Needed for Graduation” on page 50) and Faculty of Arts and Social Sciences (see “Graduation GPA Requirements” on page 146)
• complete one course from each group

Group A – PSYC 221 or 280
Group B – PSYC 241, 250, 260, 268, 270
• complete 30 upper division psychology credit hours.
• complete 15 upper division psychology credit hours must be completed at SFU.

G. Alder BA (S Fraser), MSc, PhD (Calg)
R. Day BA (Vic, BC), MA (Guelph), PhD (S Fraser)
L.J. Foster BA (Br Col), MA (New Br)

Advisors
Ms. L. Physick, 5253 Robert C. Brown Hall, 604.291.3359
Ms. B. Davino, 5249 Robert C. Brown Hall, 604.291.4840

*joint appointment with Riverview Hospital

Letters of Permission
See “General Information” on page 29. The department does not normally approve letters of permission for students already registered at SFU to take PSYC 201, 210 and 301 at a different institution. Such permission may be granted for other 100 to 300 division courses. Direct all enquiries to the psychology undergraduate advisor.

Major Program
To be admitted to the major program, students must obtain a final course grade of C (2.0) or better in each of the following courses.

PSYC 100-3 Introduction to Psychology I
PSYC 102-3 Introduction to Psychology II
PSYC 201-4 Introduction to Research Methods in Psychology
PSYC 207-3 Introduction to History of Psychology
PSYC 210-4 Introduction to Data Analysis in Psychology

Note: The above requirement applies to courses transferred from other institutions as well as to courses taken at Simon Fraser University.

PSYC 100 should be taken in the first semester and PSYC 102 should follow PSYC 100 as early as possible. (Concurrent registration in PSYC 100 and 102 is not permitted.) PSYC 201 and 210 should be taken during the first four semesters.

To receive a major in psychology, students must
• meet the graduation requirements of the University (see “Grade Point Averages Needed for Graduation” on page 50) and Faculty of Arts and Social Sciences (see “Graduation GPA Requirements” on page 146)
• complete one course from each group

Group A – PSYC 221 or 280
Group B – PSYC 241, 250, 260, 268, 270
• complete 30 upper division psychology credit hours.
• complete 15 upper division psychology credit hours must be completed at SFU.
Honors Program
The application form and information hand-out are available at the psychology general office. Application deadline: May 1.

Admission
- completion of 75 hours with a minimum 3.33 CGPA
- a minimum CGPA of 3.33 over all SFU courses
- completion of 15 SFU psychology credit hours with a minimum 3.0 CGPA
- a minimum 3.33 CGPA in PSYC 100, 102, 201, 207 and 210
- completion of one course from each group
  - Group A – PSYC 221, 280
  - Group B – PSYC 241, 250, 260, 268, 270
  - completion of PSYC 301 with a minimum C grade
- attendance at an honors information session
- approval and signature of a psychology department faculty member to supervise the honors project

Continuation
- maintain a minimum 3.0 CGPA for all courses taken in each semester
- maintain a minimum 3.0 CGPA for all psychology courses taken in each semester
- attend the appropriate graduate area research seminar while enrolled in PSYC 490/499.

Students not meeting the requirements may be dropped from the program, but may apply for readmission at a later date.

Completion
Students must complete 60 upper division credit hours, of which 50 must be in upper division psychology courses, including both of PSYC 490-4 Honors Project* and PSYC 499-6 Honors Project*

*together comprise the honors project and are taken only after completion of 90 credit hours, with at least 20 credit hours in upper division psychology courses.

No more than eight upper division credit hours may be in directed studies. Up to 12 upper division credits may be approved options from other departments.

Students must also meet the University's and Faculty of Arts and Social Sciences' honors graduation requirements and obtain certification by the undergraduate studies committee that the program has been satisfactorily completed.

Minor Program
To be admitted, students must obtain a final course grade of C (2.0) or better in each of the following:

- PSYC 100-3 Introduction to Psychology
- PSYC 102-3 Introduction to Psychology
- PSYC 201-4 Introduction to Research Methods in Psychology

Note: The above requirement applies to courses transferred from other institutions as well as to courses taken at Simon Fraser University.

Students must complete one of PSYC 221, 241, 250, 260, 270 or 280 and a minimum of 15 upper division psychology credit hours with a CGPA of 2.0.

No more than three credit hours may be in directed studies courses. At least eight upper division credit hours must be taken at Simon Fraser University.

Students who are approved majors or honors in criminology, intend to minor in psychology, and have successfully completed CRIM 220 (with a final course grade of C (2.0) or better), may request a waiver for PSYC 201 by petitioning the psychology undergraduate advisor. If this waiver is granted, an additional three credit upper division psychology course must be selected to replace PSYC 201.

Extended Minor Program
An extended minor consists of all major program lower division division requirements and all minor program upper division requirements. Programs must be approved by the extended minor program advisor.

Joint Major in Psychology and Criminology
For information, see “Joint Major in Criminology and Psychology” on page 161.

Joint Major in Psychology and Business Administration
See page 204 for information.

Joint Major in Psychology and Women’s Studies
See page 190 for information.

Co-operative Education Program
Co-operative education, for qualified students who want work experience, entails study semesters and employment in the area of the student's choice.

Note: This program will not provide training in clinical psychology or therapeutic techniques.

For admission, 30 credit hours with a minimum 3.0 CGPA is required. Prior to admission, students must complete PSYC 100, 102, 201 and 210 or their equivalents. Transfer students must complete at least 15 credit hours at SFU. See page 204. Work arrangements are made through the Faculty of Arts and Social Sciences co-op co-ordinator who should be consulted at least one semester in advance.

Advice to Students from Other Departments
To register in psychology courses, students must meet the prerequisites or special instructions. The listed prerequisites indicate the minimal background expected by instructors.

Psychology and Statistics
A level of statistical sophistication is required before undertaking independent research or evaluating research of others. The department offers several courses in research methodology and data analysis: PSYC 201, 210, 301, 311, 410, 411. Students who have a special interest in more extensive statistical training to facilitate their work in psychology should also consider courses from STAT 270 and above, and in particular, STAT 270, 302, 330, 403, 410 and 430.

Directed Studies Courses
PSYC 493, 494, and 495 are directed studies courses. Registration in these courses enable an individual or small group to work with a faculty member on a reading or research project of mutual interest. Common reasons for a student requesting such a course are:

- to continue a reading or research project begun in a 400 level seminar
- to cover material not included in regular courses

The minimum entry requirements are a B (3.0) average, at least 60 credit hours and department permission. Directed studies course students complete an application form (available in the department) with the intended instructor.

**department of sociology and anthropology**

5054 Academic Quadrangle, 604.291.3146 Tel, 604.291.5799 Fax, www.sfu.ca/sociology
Affiliation with the three divisions within the department is shown as follows: A – anthropology; S – sociology, LAS – Latin American studies

Chair
J. Pulkingham MA, PhD (Edin)

Professors Emeriti
H. Adam Dipl Socio DrPh(Dan), Habilitation
H. Dickie-Clark BA (Rhodes), PhD (Natal) – S
H. Sharma MA (Delhi), MS (Cleveland), PhD (Cornell) – S
I.R. Whitaker MA (Camb), DPhil (Oslo) – A
R.W. Wylie BA (Leic) – S

Professors
N. Dyck BA, MA (Sask), PhD (Manc) – A
M. Howard BA, MA, PhD (WAust) – A
M. Kenny BA, MA (Virginia), DipSocAnthrop, DPhil (Ox) – A
G. Otero BA (IT Monterrey), MA (Tex), PhD (Wis) – S
G.B. Teeple BA, MA (Tor), DPhil (Sus) – S

Associate Professors
M. Boelscher Ignace MA (Georg August Universitat), PhD (S Fraser)** – A
D.E. Chunns BA (Br Col), MA, PhD (Tor)*
D. Culhane BA, PhD (S Fraser) – A
P. Dossa BA, MA (Edin), PhD (Br Col) – A
M. Gates BA (Sheff), MA, PhD (Br Col) – A
D. Lacombe BA (Sher), MA, PhD (Tor)* – S
A.T. McLaren BA (Br Col), MA (Iowa), PhD (Lond) – S
B. Mitchell BA, MA, PhD (McM)**** – S
C.K. Patton BSc (Trent), MA (Calg), PhD (York, Can), Canada Research Chair*** – A
S. Pigg BA, MA, PhD (Cornell) – A
J. Pulkingham MA, PhD (Edin) – S
J.M. Whitworth BA (Leic), DPhil (Ox) – S

Assistant Professors
Y. Atasoy BSc (AcadSocSc, Ankara), MSc (MidEastTech, Ankara), PhD (Tor) – S
F. DeMaio BA (Tor), MA (Essex)
K. Frochsauber BA, MA (Br Col), PhD (Car) – S
A. Travers BA (S Fraser), MA (Br Col), PhD (Oregon) – S
H. Wittman BA (Wash), MA (Cornell)

Adjunct Professors
R. Bateman MA, MA (Oklahoma), PhD (Johns Hopkins) – A
G. Rush BA (Br Col), PhD (Oregon) – S
S. Migliore, BA, MA, PhD (McM) – A
P. Vahabzadeh BA, PhD (S Fraser) – S

Lab Instructor
C. Szafnicki MA (Lodz), PhD (Warsaw) – A

Senior Lecturer
M. Escudero-Faust BA, MA (S Fraser) PhD (Br Col) – LAS

Lecturer
J. Bogardus BA, MA (Br Col), PhD (S Fraser) – A

Advisor
Ms. K. Payne, 5056 Academic Quadrangle, 604.291.3726

Faculty Advisor
Ms. J. Bogardus, 5078 Academic Quadrangle, 604.268.6629

*Joint appointment with criminology
**Joint appointment with First Nations studies
***Joint appointment with women's studies
****Joint appointment with gerontology
The department’s courses provide theoretical analytical understanding of the social and cultural forces affecting our lives and other societies. Such understanding is important and leads to more effective participation in society. SFU sociologists and anthropologists conduct research and teach courses about Western industrial societies, Third World societies, and theoretical and comparative questions that go beyond national boundaries. The department offers honors and majors in sociology and anthropology and minors in sociology and anthropology. Honors and major students may take options such as an applied social research stream and a co-operative education program. Joint majors are available with archaeology, art and culture studies, Canadian studies, communication, criminology, Latin American studies, linguistics, and women’s studies. Joint honors are available with Canadian studies, Latin American studies and sociology and anthropology. The department also offers a certificate in ethnic and intercultural relations.

As well as its intrinsic intellectual rewards, undergraduate training in sociology and anthropology provides invaluable background for students who intend to pursue careers in such fields as urban planning, journalism, law, public administration, welfare related professions, teaching, personnel management, health care fields, and international development projects.

Courses provide students specializing in other disciplines with an appreciation of social and cultural processes that will complement their specialization. Especially appropriate are SA 100, 101, 150, 201, 286, 292 and 293, which require no prerequisites. A number of other courses dealing with important contemporary issues such as SA 202, 203, 216, 218 and 260 are open to students with one introductory course.

Course Selection
Consult department hand-outs available in the SA general office, as there are differing emphases in course outlines from semester to semester.

Normally, directed readings courses SA 496 and 497 are available only to SA major and honors students. Credit may be given for only one of these.

Some courses in other departments are relevant to certain areas of sociology and anthropology. Honors and majors in sociology and/or anthropology are urged to prepare themselves broadly by taking additional courses in other departments, after consultation with an advisor.

Many graduate schools require a reading knowledge of a language other than English. Those considering graduate study should include an appropriate second language in their program.

To assist students to plan an interdisciplinary program, the following list of courses identify the three disciplines into which all sociology and anthropology courses are divided. For details about these courses, see “Sociology and Anthropology SA” on page 439 of the Course Catalogue.

Anthropology Courses
SA 101, 201, 245, 286, 293, 301, 318, 323, 332, 352, 401, 402, 451, 472, 486, 497

Sociology Courses
SA 150, 202, 216, 231, 250, 260, 292, 304, 321, 322, 325, 326, 327, 331, 333, 335, 350, 351, 353, 362, 416, 450, 497

Sociology and Anthropology Courses
An SA course can be counted as either sociology or anthropology.

Major Programs

Lower Division Requirements
Lower division requirements provide a broad introduction to both disciplines, to critical analysis of Canadian society, to basic logic and methods used in social research, and to the application of these methods to topics of special interest to students.

Students should complete all lower division requirements before taking upper division courses.

Anthropology Major
SA 101-4 Introduction to Anthropology
SA 150-4 Introduction to Sociology
SA 201-4 Anthropology of Contemporary Life
SA 255-4 Introduction to Social Research

plus one additional 'A' course at the 200 level

Sociology Major
SA 100-4 Perspectives in Canadian Society
SA 101-4 Introduction to Anthropology
SA 150-4 Introduction to Sociology
SA 250-4 Introduction to Sociological Theory
SA 255-4 Introduction to Social Research

STAT 203-3 Introduction to Statistics for Social Sciences

Note: Students with an equivalent post-secondary statistics course are exempt from STAT 203. It is, however, highly recommended that students take SA 255 before taking STAT 203.

Upper Division Requirements
Students must meet theory and methods requirements (see program options for specific requirements). In our information based society, many employers and most graduate schools require considerable knowledge of conceptualizing research problems, information gathering, analysis and presentation. Students are strongly urged to prepare by balancing theory courses with methods courses over and above the required minimum. Beyond this, they may choose to range broadly across the two disciplines or to focus on a special interest. Courses fall broadly into the following groups.

Anthropological Theory and Institutions of Social Life
SA 301-4 Contemporary Ethnography
SA 322-4 Symbol, Myth and Meaning
SA 323-4 The Anthropology of Childhood
SA 364-4 Urban Communities and Cultures
SA 371-4 The Environment and Society
SA 402-4 The Practice of Anthropology

plus two of
SA 218-4 Advanced Seminar
SA 332-4 The Anthropology of Domestic Life
SA 401-4 The Politics of Culture in Contemporary Societies
SA 451-4 Issues in Anthropological Theory
SA 460-4 Issues in Anthropology and Sociology (when an A topic only)
SA 463-4 Special Topics in Development Studies (when an A topic only)
SA 472-4 Anthropology and the Past (highly recommended)
SA 486-4 Aboriginal Peoples and British Columbia: Advanced Seminar

An additional 12 upper division credit hours are required, to be chosen from any SA or A course.

Courses designated A are highly recommended.

Sociology Major Program
Students must complete 32 credit hours in upper division SA courses, including the following.
SA 301-4 Contemporary Ethnography
SA 356-4 Ethnography and Qualitative Methods
SA 402-4 The Practice of Anthropology

plus two of
SA 218-4 Advanced Seminar
SA 332-4 The Anthropology of Domestic Life
SA 401-4 The Politics of Culture in Contemporary Societies
SA 416-4 Sociology of Art Forms
SA 429-4 The Anthropology of Aging
SA 430-4 Social Policy Analysis
SA 450-4 Advanced Sociological Theory
SA 451-4 Issues in Anthropological Theory
SA 460-4 Issues in Anthropology and Sociology (when an A topic only)
SA 463-4 Special Topics in Development Studies (when an A topic only)
SA 472-4 Anthropology and the Past (highly recommended)
SA 486-4 Aboriginal Peoples and British Columbia: Advanced Seminar

An additional 20 upper division credit hours are required, to be chosen from any SA or A course.

Courses designated A are highly recommended.

Applied Social Research Stream
Students wishing for a broader preparation in research methods may choose this special stream. See the department advisor for details.

Joint Major Programs

Joint Major in Archaeology and Anthropology
Please see “Joint Major in Archaeology and Anthropology” on page 148.
Joint Major in Art and Culture Studies and Anthropology

Please see “Joint Major in Anthropology or Sociology, and Art and Culture Studies” on page 159.

Joint Major in Art and Culture Studies and Sociology

Please see “Joint Major in Anthropology or Sociology, and Art and Culture Studies” on page 159.

Joint Major in Sociology or Anthropology and Canadian Studies

Please see “Joint Major Programs” on page 150.

Joint Major in Anthropology and Sociology

Lower Division Requirements

Refer to the Major Programs – Lower Division Requirements for the two discipline requirement specifications.

Simons Fraser University 2005 • 2006

SA 100-4 Perspectives in Canadian Society
SA 101-4 Introduction to Anthropology
SA 104-4 Introduction to Sociology
SA 250-4 Introduction to Sociological Theory
SA 255-4 Introduction to Social Research
STAT 203-3 Introduction to Statistics for Social Sciences

plus one additional A’ course at the 200 level

Note: Students with equivalent post secondary statistics courses are exempt from STAT 203. It is highly recommended that students take SA 255 before taking STAT 203.

When choosing lower division courses, consider the prerequisites for upper division courses.

Upper Division Requirements

Students must complete 40 credit hours in upper division SA courses, including the following:

SA 301-4 Contemporary Ethnography
SA 350-4 Classical Sociological Thought
SA 356-4 Ethnography and Qualitative Methods
SA 402-4 The Practice of Anthropology

plus one of

POL 315-4 Quantitative Methods in Political Science
SA 355-4 Quantitative Methods

plus two of

SA 318-4 The Anthropology of Medicine
SA 332-4 The Anthropology of Childhood
SA 451-4 Issues in Anthropological Theory
SA 460-4 Issues in Anthropology and Sociology (when an A topic only)
SA 463-4 Special Topics in Development Studies (when an A topic only)
SA 472-4 Anthropology and the Past* SA 486-4 Aboriginal Peoples and British Columbia: Advanced Seminar

An additional 12 upper division credit hours are required, to be chosen from any SA or S course.

*highly recommended

Joint Major in Sociology or Anthropology and Communication

Sociology, anthropology and communications overlap in many concerns; nature, production, commodification, and politics of culture; communicative processes and social identity, class, gender, etc. This joint major is for those who share these common interests. A minimum 2.50 CGPA is required for entry and continuation in this program. Students must fulfill lower and upper division requirements for both sociology and anthropology, as listed below.

Lower Division Anthropology Requirements

Students must complete all of
SA 101-4 Introduction to Anthropology
SA 150-4 Introduction to Sociology
SA 255-4 Introduction to Social Research
and one of
SA 201-4 Anthropology of Contemporary Life
SA 245-4 Cultures and Images

and one of
CMNS 260-3 Introduction to Empirical Communication Research Methods
STAT 203-3 Introduction to Statistics for the Social Sciences

Lower Division Sociology Requirements

Students must complete all of
SA 100-4 Perspectives on Canadian Society
SA 101-4 Introduction to Anthropology
SA 150-4 Introduction to Sociology
SA 250-4 Introduction to Sociological Theory
SA 255-4 Introduction to Social Research

and one of
CMNS 260-3 Introduction to Empirical Communication Research Methods
STAT 203-3 Introduction to Statistics for the Social Sciences

Upper Division Communication Requirements

Students must complete the following core courses:
CMNS 110-3 Introduction to Communication Studies
CMNS 130-3 Explorations in Mass Communication
Students must complete at least six (6) CMNS 200-level courses, including at least two of
CMNS 260-3 Empirical Communication Research Methods
CMNS 261-3 Documentary Research in Communication
CMNS 262-3 Design and Method in Qualitative Communication Research

and at least one course from each area of concentration in communication (see below).

Media and Culture
CMNS 210, 211, 220, 221, 223 or 235

Technology and Society
CMNS 253

Political Economy and Policy
CMNS 230 or 240

The remaining 200 level CMNS course(s) can be chosen from any other area of concentration.
A grade of C- or better is mandatory in all required lower division CMNS courses.

Upper Division Anthropology Requirements

Students must complete a minimum of 20 upper division credit hours in anthropology or SA courses (five courses) which must include the following:
SA 301-4 Contemporary Ethnography
SA 356-4 Ethnography and Qualitative Methods

Recommended
SA 402-4 The Practice of Anthropology

Upper Division Sociology Requirements

Students must complete a minimum of 20 upper division credit hours in sociology or SA courses (five courses) which must include the following.
SA 350-4 Classical Sociological Thought
SA 355-4 Quantitative Methods

Recommended
SA 356-4 Ethnography and Qualitative Methods

Upper Division Communication Requirements

Students must complete a minimum of 24 upper division communication credit hours. Directed study and field placement courses may not be used.

Joint Major in Sociology or Anthropology and Criminology

These disciplines have some common methods and theoretical concerns; the relation between such variables as class, gender, ethnicity and crime; the social construction of deviance; the law as a social phenomenon; and the general social, political, and economic frameworks of society that condition the nature and perception of social problems. This program is for those who share these concerns.

Admission is contingent upon the enrolment limitation requirements of the School of Criminology.

Application for admission must follow the general procedures established by the school.

A grade of 1.67 (C-) or better is required in all non-elective courses.

The department offers degrees in sociology or anthropology and a joint degree in sociology and anthropology. Students interested in a joint program in sociology or anthropology and criminology should contact both department advisors.

Anthropology Requirements

Lower Division Requirements
SA 100-4 Perspectives on Canadian Society
SA 101-4 Introduction to Anthropology
SA 150-4 Introduction to Sociology
SA 250-4 Anthropology of Contemporary Life

plus one of
CRIM 220-3 Research Methods in Criminology
SA 255-4 Introduction to Social Research

plus one 200 level sociology/anthropology (SA) or anthropology (A) course.

Upper Division Requirements

Students must complete a minimum of 20 upper division credit hours including both of
SA 301-4 Contemporary Ethnography
SA 356-4 Qualitative Methods

plus 12 additional upper division credit hours in sociology/anthropology (SA) or sociology (S) course.

Sociology Requirements

Lower Division Requirements
For the joint major in sociology and criminology, students must complete all of
SA 100-4 Perspectives on Canadian Society
SA 101-4 Introduction to Anthropology
SA 150-4 Introduction to Sociology
SA 250-4 Introduction to Sociological Theory

plus one of
CRIM 220-3 Research Methods in Criminology
SA 255-4 Introduction to Social Research

plus one additional 200 level sociology/anthropology (SA) or sociology (S) course.

Upper Division Requirements

Students must complete a minimum of 20 upper division credit hours including
SA 350-4 Classical Sociological Thought
SA 355-4 Quantitative Methods
SA 356-4 Ethnography and Qualitative Methods (SA) or sociology (S) courses.

Recommended
SA 304-4 Social Control

Criminology Requirements

For either the joint major in sociology and criminology, or in anthropology and criminology, students must complete the following criminology lower division requirements with a 2.25 CGPA.

All criminology lower division requirements must be completed before application, and before formal admittance to upper division criminology courses.
CRIM 369 or 462 may not be used for credit towards this joint major.

Students who withdraw from the joint major program and pursue a criminology major only will be required to complete additional course work consistent with the requirements for a major in criminology.

Lower Division Requirements

all of
CRIM 131-3 Introduction to the Criminal Justice System — A Total System Approach
CRIM 135-3 Introduction to Canadian Law and Legal Institutions: A Criminal Justice Perspective
CRIM 203-3 Historical Reactions to Crime and Deviance
CRIM 230-3 Criminal Law
plus all of
CRIM 101-3 Introduction to Criminology
CRIM 103-3 Psychological Explanations of Criminal and Deviant Behavior
CRIM 104-3 Sociological Explanations of Criminal and Deviant Behavior
plus one of
CRIM 220-3 Research Methods in Criminology
SA 255-4 Introduction to Social Research
plus one of
BUEC 232-3 Elementary Economic and Business Statistics I
PSYC 210-4 Introduction to Data Analysis in Psychology
STAT 100-3 Chance and Data Analysis
STAT 101-3 Introduction to Statistics
STAT 203-3 Introduction to Statistics for Social Sciences
*Students who take CRIM 220 must obtain, from the sociology/anthropology advisor, a waiver of the SA 255 prerequisite for SA 355 and 356 in advance of registering for these courses. Students who take SA 255 must obtain, from the criminology advisor, a waiver of the CRIM 220 prerequisite for CRIM 320 in advance of registering for this course.

Upper Division Requirements

Students must complete a minimum 20 credit hours in criminology with a C- or better including
CRIM 300-3 Current Theories and Perspectives in Criminology
CRIM 330-3 Criminal Procedure and Evidence
CRIM 332-3 Sociology of Law
CRIM 369 and 462 are not permitted.

Joint Major in Sociology or Anthropology and Latin American Studies

Lower Division Sociology Requirements
SA 100-4 Perspectives on Canadian Society
SA 101-4 Introduction to Anthropology
SA 150-4 Introduction to Sociology
SA 250-4 Introduction to Sociological Theory
SA 255-4 Introduction to Social Research
STAT 203-3 Introduction to Statistics for the Social Sciences

Lower Division Anthropology Requirements

These requirements are the same as for sociology except that SA 250 is not required. In addition, at least 200 level anthropology or SA courses are required.

Upper Division Sociology Requirements

Students must complete 20 credit hours in sociology or SA courses, which must include
SA 350-4 Classical Sociological Thought
and one of
SA 355-4 Quantitative Methods
POL 315-4 Quantitative Methods in Political Science
and one of
SA 356-4 Ethnography and Qualitative Methods
SA 357-4 Survey Research

Upper Division Anthropology Requirements

Students must complete 20 credit hours in anthropology or SA courses, which must include
SA 301-4 Contemporary Ethnography
SA 356-4 Ethnography and Qualitative Methods
For complete requirements, see “Joint Major Programs” on page 191.

Joint Major in Anthropology and Linguistics

For requirements, see “Joint Major in Linguistics and Anthropology” on page 182.

Joint Major in Sociology or Anthropology and Women’s Studies

For requirements, see “Joint Major in Sociology or Anthropology and Women’s Studies” on page 198.

Honors and Joint Honors Programs

Sociology Honors Program

In addition to the specified lower division requirements (see “Major Programs” on page 191), students must complete 52 credit hours in upper division SA, 32 of which must be in sociology, with the remaining 20 in anthropology.

A 3.33 grade point average in all SA courses is required for admission to, and graduation from, the honors program. Also, honors students must complete SA 499.

Theory Requirements

Please see “Major Programs” on page 191. Theory requirements should be taken as early as possible in the upper divisions.

Methods Requirements

Please see “Major Programs” on page 191. Methods requirements should be taken as early as possible in the upper division program.

Note: Students are strongly urged to balance theory courses with methods courses over and above the required minimum.

Anthropology Honors Program

In addition to the lower division requirements (see “Major Programs” on page 191), students must complete 52 hours in upper division SA courses, 32 credit hours of which must be in anthropology, with the remaining 20 credit hours in sociology. A GPA of 3.33 in all SA courses is required for admission to, and graduation from, the honors program. Also, honors students must complete SA 499.

Theory Requirements

Please see “Major Programs” on page 191. Theory requirements should be taken as early as possible in the upper division program.

Methods Requirements

Please see “Major Programs” on page 191. Methods requirements should be taken as early as possible in the upper division program.

Note: Students are strongly urged to balance theory courses with methods courses over and above the required minimum.

Minor Programs

Anthropology Minor Program

Lower Division Requirements

Completion of 12 lower division credit hours:
SA 101-4 Introduction to Anthropology
SA 201-4 Anthropology of Contemporary Life
SA 255-4 Introduction to Social Research
*other courses may be substituted upon the advice and with permission of the department advisor.

Upper Division Requirements

Completion of 15 upper division hours to include:
SA 301-4 Contemporary Ethnography
SA 356-4 Ethnography and Qualitative Methods

The balance of this requirement must include one anthropology (A) course at the 400 level.

Sociology Minor Program

Students must complete 12 lower division credit hours, of which eight must be an S designation or SA designation, and a minimum of 15 upper division credit hours, all of which must be in S or SA designation courses.

Note: those upper division courses with an A designation will not be allowed for a sociology minor.

Extended Minor Program

An extended general minor consists of lower division requirements for a major and upper division requirements for a minor. Certain other criteria may be set by individual departments and programs. A student must have their program approved by the advisor for the extended minor program.

Southwest Asia Field School

Field School Leader
M. Howard BA, MA, PhD (Waus)"

Through study and travel in Vietnam and Thailand, this field school serves as an introduction to Northeast Asia for undergraduate students. The program is approximately 13 weeks and consists of two courses (12 credit hours). Arrangements can be made for students who have taken one or more of these courses to receive credit for other suitable courses. Graduate students may also participate.

All instruction will be in English, however there will be a brief introduction to the Thai language.

The first month of the school is in northern Vietnam, including Hanoi, and field trips to mountains of the
Students must apply for entry directly to the Department of Sociology and Anthropology.

Certificate Programs

Certificate in Ethnic and Intercultural Relations

This interdisciplinary program is for those planning to work in multicultural or cross-cultural settings. It provides critical perspectives to understand processes by which social problems are defined, understood, and acted upon. The goal is to foster better understanding of the nature of the multi-ethnic society in which we live and work. Both day and evening courses are offered at the Burnaby campus and at the Harbour Centre site.

Program Objectives

- critical perspectives on current debates about racism, equality and social justice
- a clearer understanding of the concept of diversity as it relates to hierarchical structuring of differences
- knowledge based on immigration, citizenship and civil rights
- skills that will prepare you for professional work or further academic study in the field.

Program Requirements

Students must successfully complete 30 credit hours comprised of 12 required courses, and the remaining chosen from three sets of specific electives. These courses, which include both lower and upper division courses, provide critical and interdisciplinary material. A minimum 2.50 GPA calculated on the designated courses for the certificate is required. Duplicate courses will not count.

Core Courses

- POL 481-4 Ethnic Politics and National Identity: Comparative Perspectives
- SA 345-4 Issues in Canadian Ethnic Relations
- SA 386-4 Native Peoples and Public Policy

Elective Courses

Students must complete the minimum 10 credit hours from the following:

- ASC 101-3 Introduction to Asia-Canada Studies
- CRIM 335-3 Human Rights and Civil Liberties
- CRIM 311-3 Minorities and the Criminal Justice System
- SA 390-4 Anthropological Perspectives
- HIST 264-4 History of the Native People in Canada
- POL 255-4 Introduction to Social Research
- SA 264-4 Aboriginal Peoples and British Columbia: Introduction
- SA 303-4 Ethnic Conflicts
- SA 319-4 Culture Ethnicity and Aging
- SA 340-4 Social Issues and Social Policy Analysis
- SA 405-4 Canadian Ethnic Minorities
- SA 435-4 Gender Colonialism Post-colonialism
- WS 200-4 Women in Cross-Cultural Perspective

Certificate in Family Studies

This program studies families from an interdisciplinary perspective. Students gain an understanding of psychology, sociology, gerontology and health. Students may supplement core courses with electives in relevant disciplines such as communications, education, history, and women's studies.

Admission Requirements

In addition to normal University admission requirements, students must complete PSYC 100, 102, and SA 150 prior to formal program admission. GER0 300 is highly recommended. Students can be admitted under regular or special entry requirements.

Program Requirements

- successful completion of 30 credit hours, of which 14 are earned by completing four required core courses. The remaining 16 hours are selected from a set of three courses from which the students select one, and 12 hours of elective credit. Some have prerequisites that are not included in the certificate program.
- minimum 2.25 GPA calculated on courses applied to the certificate. Duplicate courses are counted once.
- completion of the certificate normally within five years of admission to the certificate program.

Certificate in Family Studies (18 credit hours

GER0 408-4 Families and Aging
PSYC 250-3 Introduction to Developmental Psychology
SA 231-4 Sociology of Domestic Life and one of
KIN 110-3 Human Nutrition: Current Issues
KIN 140-3 Contemporary Health Issues
and one of
HIST 310-4 Women and the Family in Modern Europe
SA 331-4 Politics of the Family
SA 332-4 Anthropology of Childhood
"if students choose more than one of these courses, it/they may be applied to their elective courses.

Elective Courses (12 credit hours)

Students must complete 12 credit hours from:
CMNS 320-4 Children, Media and Culture
CRIM 210-3 Law, Youth and Young Offenders
HIST 329-4 Canadian Family History
PSYC 355-3 Adolescent Development
PSYC 373-3 Adulthood and Aging
SA 319-4 Culture, Ethnicity and Aging
SA 335-4 Gender Relations and Social Issues
SA 340-4 Social Issues and Social Policy Analysis
SA 496-4 Directed Readings in Anthropology
WS 200-4 Women in Cross-Cultural Perspective
WS 203-4 Female Roles in Contemporary Society
Co-operative Education
This program provides practical social sciences experience and entails planned study semesters and employment in an area of the student’s choice.

Requirements
To be admitted into the program, students must have completed 29 hours with a minimum CGPA of 2.75. Prior to admission, students must complete all of SA 101-4 Introduction to Anthropology and one of SA 201-4 Anthropology of Contemporary Life or SA 250-4 Introduction to Sociological Theory. College transfer students must complete at least 15 SFU credit hours for admission eligibility, and must satisfy the requirements above or equivalents.

Statistics Program
TLX10545 Shrum Science Centre, 604.291.3803 Tel, 604.291.488 Fax, www.stat.sfu.ca, stat@sfu.ca Chair of Statistics and Actuarial Science R.D. Routledge BSc (Qu), MSc (Alta), PhD (Dal)
Professor Emeritus M.A. Stephens BSc (Brist), AM (Harv), PhD (Tor)
K.L. Weldon
Senior Lecturer
R. Insley BSc, MSc (Br Col)
A program within the Faculty of Arts and Social Sciences leading to a bachelor of arts with a major or honors in statistics is offered. Students interested in a bachelor of science degree in statistics should see “Department of Statistics and Actuarial Science” on page 235 in the Faculty of Science section. The following programs train students, not only in the analysis of large data sets, but also in the design and analysis of scientific experiments and sample surveys. These techniques are applied in a broad range of fields. To appreciate their application, students gain advanced training in an area of potential application. To this end, major or honors students complete a minor in a field other than mathematics and statistics. There are no other restrictions on the selection of a minor. Students are encouraged to discuss the selection of a minor with an advisor early in their program.

Prerequisite Grade Requirement
A C- grade or better in prerequisites for STAT courses offered by the Department of Statistics and Actuarial Science is required.

Faculty of Arts and Social Sciences Requirements
Students planning a bachelor of arts with a statistics major or honors must satisfy the Faculty of Arts and Social Sciences requirements.

Major Program
A major in statistics requires 120 credit hours, of which at least 65 must be within the Faculty of Arts and Social Sciences and the Department of Statistics and Actuarial Science. Please see “Bachelor of Arts Degree” on page 144 for general regulations, breadth requirements, upper division credit, etc.

Statistics
Students must obtain credit for the following.

a) Lower Division Requirements
Mathematics
Students must complete one of MATH 151-3 Calculus I MATH 154-3 Calculus I for the Biological Sciences MATH 157-3 Calculus for the Social Sciences I plus one of MATH 152-3 Calculus II MATH 155-3 Calculus II for the Biological Sciences MATH 158-3 Calculus for the Social Sciences II plus both of MATH 232-3 Elementary Linear Algebra MATH 251-3 Calculus III

Statistics
Students must complete both of STAT 270-3 Introduction to Probability and Statistics STAT 285-3 Intermediate Probability and Statistics

b) Upper Division Requirements
Mathematics and Computing Science
Students must complete one of CMPT 100-3 Software Packages and Programming CMPT 102-3 Introduction to Scientific Computer Programming

Statistics
Students must complete all of STAT 330-3 Introduction to Statistical Inference
Undergraduate 196 Faculty of Arts and Social Sciences – Department of Women’s Studies

Dr. M.L. Roseland, BA MA (Wesleyan, Conn), PhD (Br Col)
Ms. C. Lai BA (Singapore), 2128 East Academic Annex, 604.291.5849, edeadmin@sfu.ca

The Community Economic Development (CED) Centre has become the Centre for Sustainable Community Development (CSCD). The CSCD certificate, diploma and professional program remain unchanged.

Community economic development enables communities to initiate and generate solutions for their common economic problems and thereby build long term community capacity and foster integration of economic, social and environmental objectives. The Centre for SCD is actively involved in community based projects throughout the province and offers an undergraduate certificate and a post baccalaureate diploma, both available by distance education.

Certificate
This program offers basic accreditation in community-based social and economic development and is for those who seek an holistic, active, practical credential with an undergraduate degree. It offers theoretical and practical perspectives on alternate rural and urban economic strategies and ecologically sustainable communities. Students may take this program with or without registration in a bachelor’s degree program. General certificate regulations apply. Courses taken for this certificate may also apply toward major or minor program requirements or toward a bachelor’s degree under normal regulations. This program may be taken by distance education.

Admission Requirements
General undergraduate admission to the university and formal application for program approval with the Centre for SCD. Students must normally complete 30 credit hours before applying for this program.

New program application deadlines: May 1 for fall semester, October 1 for spring semester, February 1 for summer semester, Intercession and summer session.

Program Requirements
Students must complete a minimum of 19 credit hours of required courses and approved elective courses, attain at least a C+ grade in CED 201 and CED 301 for program continuance, and must maintain at least a 2.5 CGPA in all CED courses to obtain the certificate. Fifteen credit hours are earned by completed four core courses:

CED 201-3 Introduction to Community Economic Development
CED 301-4 Sustainable Community Development
CED 401-4 Concepts, Techniques and Principles for CED Practice
CED 403-4 Models and Cases in Community Economic Development

The remaining minimum of four credit hours are selected from a list of multidisciplinary courses approved by the Centre or other electives approved by the director. These include CED 410 Special Topics, offered with a changing CED related topic annually. Under circumstances where fieldwork or experience work is not available as part of a student’s major, minor or CED requirements, the student must apply to take CED 404 Project as their elective. Note that a choice of a third elective credit means that more than one elective will be required to fulfill the minimum credit hours for completion of the certificate. Electives may be either upper or lower division courses, but must be approved by the CSCD. Courses in other departments may have prerequisites not included in this certificate program.

Transfer Credits
Transfer credit for work done at other institutions, before or after program admission, may be approved toward program fulfillment provided they meet Centre requirements for community economic development relevance and that at least half of the total credit hour requirements are taken at SFU. All other requirements for transfer credits under general undergraduate regulations apply.

Limits
Those who complete the undergraduate certificate cannot enroll in the post baccalaureate program (PBD). Those who have taken the CED PBD may not enrol in this certificate. Those who have taken CED 400 or CED 402 may not take CED 201 or CED 301 for credit toward the certificate. Additional information is available at www.sfu.ca/cscd. See also “Centre for Sustainable Community Development” on page 448.

Post Baccalaureate Diploma
This program is for those with an undergraduate degree or equivalent. The diploma is applicable to a wide range of occupational, professional and academic fields. By combining courses from several disciplines with a specially designed core of study and opportunities for guided practice, the program provides unique perspectives on economic, social and cultural community development.

New application deadlines: May 1 for fall semester, October 1 for spring semester, February 1 for summer semester, Intercession and summer session.

For information about post baccalaureate diploma programs general regulations, see “Post Baccalaureate Diploma Program” on page 30.

Required Courses
Students must complete 30 upper division credit hours, including 16 hours in the following courses.

CED 301-4 Sustainable Community Development
CED 401-4 Concepts, Techniques and Principles for CED Practice
CED 403-4 Models and Cases in Community Economic Development
CED 404-4 Project

In addition to these required courses, students must complete at least 14 credits in elective courses.

Elective Courses
Select electives from the CED electives (CED 410, 412) and from a variety of departments, in consultation with the Centre for SCD’s academic supervisor. A list of pre-approved electives is available but students may also propose courses for that meet the following requirements.

• the proposed course must be an upper division course (300-400 level) or higher;
• the elective proposal must be approved, in writing, before registering and include the course description. Students should complete electives early in the registration period;
• the proposed course must meet the CSCD’s content requirements for being thematically related to CED or applicable skills for CED field work. It must be sufficiently related by topic to CED (e.g. underdevelopment, regional planning, public planning process) and/or provide research and other skills relevant to CED practice (e.g. business management, organizational behavior, fieldwork methodologies, qualitative and quantitative analysis). Determination of relevance and applicability will be made by the CSCD academic supervisor or their designate.

• a proposed directed studies course from another department requires a detailed study plan to be approved in advance by the CSCD academic supervisor and the chosen faculty supervisor. The project’s final report must be submitted to the centre as well as to the named faculty member.
• Students are responsible for prerequisite or other clearances to gain course entry. Many departments waive introductory courses for those with extensive experience. However, other SFU departments give course registration priority to their own students and will not necessarily permit CED students to register. Check all Calendar entries and consult both department and CSCD advisors before registering.

Other restrictions may apply.

Transfer credit for work done at other institutions, before or after admission to the program, may be approved provided it meets CED requirements for relevance to community economic development and provided that at least 18 of the total credit hour requirements are taken at Simon Fraser University. All other requirements for transfer credits under general post baccalaureate programs regulations apply.

Applications for transfer credit must be initiated at the time of application for admission to SFU by requesting a Letter of Permission from the admissions office. A GPA of 2.5 is in all required and elective courses to be credited toward the diploma must be maintained for continuance in the program.

More information on the centre and its programs is available at the Centre for Sustainable Community Development and its web site www.sfu.ca/cscd

See also “Centre for Sustainable Community Development” on page 448 for information about research activities.

Department of Women’s Studies
5102A Academic Quadrangle, 604.291.3333 Tel, 604.291.5518 Fax, www.sfu.ca/womens-studies

Chair
M. Griffin Cohen BA (Iowa Wesleyan), MA (NY State), PhD (York, Can)***

Professors Emeriti
M. Kimball BA (Macauley), PhD (Mich)***
A. Lebowitz BW (New Rochelle), MA (Wisc)
S. Wendell BA (NY State), MA, PhD (Br Col)

Ruth Winn Woodward Endowed Chair
E. Philopose BA (Vic, BC), MA, PhD (York, Can)

Professors
M. Griffin Cohen BA (Iowa Wesleyan), MA (NY State), PhD (York, Can)***
M.L. Stewart BA (Calg), MA, PhD (Col)

Associate Professors
J. Levitin BA, MA, PhD (NY State)***
C.K. Patton BSc (Trent), MA, PhD (Calg, PhD (York, Can),
Canada Research Chair
H. Zaman BA (Dhaka), MA, PhD (Manit)

Assistant Professors
L. Campbell BA (McM), MA, PhD (Qu), PhD (Qu)
L. Heung BA (Oxf), MA, PhD (Wisc)

M. MacDonlad BEd (Qu), BSc (Manit), PhD (WOn)

Associate Members
M. Bubber, Library
B. Burtch, Criminology
P. Dossa, Sociology and Anthropology
O. Hankivsky, Political Science
J. Matsunuma, History
A.T. Mclean, Sociology and Anthropology
K. Mezei, English
Undergraduate

Advisor

B. Wepruk (Open BC), MSc (Royal Roads), 5105 Academic Quadrangle, 604.291.3593, wepruk@sfu.ca

*joint appointment with contemporary arts
***joint appointment with political science
†joint appointment with psychology

Major Program

Breadth Requirements

Students take at least one course in each of the three following groups of courses.

Science and Technology

WS 204-3 Women, Science and Technology
WS 206-3 Issues in Women’s Health and Health Care
WS 208-3 Researching Women’s Issues: How Do We Do What We Do?
WS 313-4 Women and the Environment

Social Sciences

WS 200-3 Women in Cross-Cultural Perspective
WS 201-3 Women in Canada 1600-1920
WS 202-3 Women in Canada 1920 to the Present
WS 203-3 Female Roles in Contemporary Society
WS 207-3 Introduction to Feminist Theory
WS 208-3 Researching Women’s Issues: How Do We Do What We Do?
WS 307-4 Women in British Columbia
WS 308-4 Women and Work
WS 309-4 Gender and Development
WS 314-4 Race, Class and Gender
WS 400-4 Methodological Issues in Women’s Studies
WS 411-4 Feminist Psychoanalytic Theories

Humanities and Fine Arts

WS 205-3 Women and Popular Culture
WS 304-4 Women and Religion
WS 305-4 Women and Utopias
WS 306-4 Women’s Autobiographies, Memoirs and Journals
WS 412-5 Women and Film

Lower Division Requirements

Students must complete 12 lower division credit hours in women’s studies including both of

WS 101-3 Introduction to Women’s Issues in Canada
WS 102-3 Introduction to Western Feminisms

Upper Division Requirements

Students must complete 32 upper division women’s studies credit hours including one of WS 400, 405 or 412. Those who have taken WS 311 or 312 have met this requirement. Students may substitute up to eight hours of upper division credit offered by other departments and approved by women’s studies.

Joint Major in Criminology and Women’s Studies

Advisors

Ms. M. McIlroy, School of Criminology, 2644 Diamond Building, 604.291.3645
B. Wepruk, Department of Women’s Studies, 5105 Academic Quadrangle, 604.291.3593

Program Requirements

Interested students should contact advisors in both the School of Criminology and the Department of Women’s Studies.

To be admitted, students must satisfy admission requirements for both departments and should refer to those Calendar sections. The School of Criminology must approve the student’s admission before the student will be approved by the Department of Women’s Studies.

To continue in this program, students must maintain a cumulative GPA of 2.25 and cannot register in upper division CRIM courses with a CGPA of less than that. However, a student whose CGPA is between 2.00 and 2.25 may be eligible to apply for admission to the Department of Women’s Studies major program.

Women’s Studies Requirements

Lower Division Requirements

Students must complete 15 credit hours in women’s studies including

WS 101-3 Introduction to Women’s Studies in Canada
WS 102-3 Introduction to Western Feminisms

Upper Division Requirements

Students must complete a minimum of 20 upper division WS credit hours including one of

WS 400-4 Methodological Issues in Women’s Studies
WS 405-4 Theoretical Issues in Women’s Studies

The special topics course WS 303-4 is recommended when offered as Women and the Law.

Exceptionally and only with the permission of the department, one course designated of women’s studies credit offered by another department may be substituted for one course.

Criminology Requirements

All criminology lower division requirements must be completed with a cumulative GPA of not less than 2.25 before applying to the school for program acceptance, and before admittance is granted to undertake the upper division criminology courses. A C- grade or better is required in all required courses.

Lower Division Requirements

Students must complete a minimum of 60 credit hours including all of

CRIM 101-3 Introduction to Criminology
CRIM 103-3 Psychological Explanations of Criminal and Deviant Behaviour
CRIM 104-3 Sociological Explanations of Criminal and Deviant Behaviour
CRIM 131-3 Introduction to the Criminal Justice System — A Total System Approach
CRIM 135-3 Introduction to Canadian Law and Legal Institutions: A Criminal Justice Perspective
CRIM 213-3 Women and Criminal Justice
CRIM 220-3 Research Methods in Criminology
CRIM 230-3 Criminal Law
SA 150-4 Introduction to Sociology

plus one of

PHIL 001-3 Critical Thinking
PHIL 100-3 Knowledge and Reality
PHIL 110-3 Introduction to Logic and Reasoning
PHIL 120-3 Introduction to Moral Philosophy
PHIL 150-3 History of Philosophy I
PHIL 151-3 History of Philosophy II
PHIL 220-3 Introduction to Social and Political Philosophy
PHIL 244-3 Introduction to the Philosophy of Natural and Social Science
PHIL 290-3 Introduction to Existentialism

plus one of

POL 100-3 Introduction to Politics and Government
POL 151-3 The Administration of Justice

plus both of

PSYC 100-3 Introduction to Psychology I
PSYC 102-3 Introduction to Psychology II

plus one of

STAT 100-3 Chance and Data Analysis
STAT 101-3 Introduction to Statistics
STAT 203-3 Introduction to Statistics for Social Sciences

Upper Division Requirements

Students must complete a minimum of 25 upper division credit hours in criminology with a minimum CGPA of 2.25 including all of

CRIM 300-3 Current Theories and Perspectives in Criminology
CRIM 320-5 Advanced research Issues in Criminology
CRIM 330-3 Criminal Procedure and Evidence
CRIM 333-3 Women, Law and the State
CRIM 432-3 Gender in the Courts and the Legal Profession

Note: Students in this joint major program are not permitted to complete CRIM 369 nor 462.

Electives

The remaining required credit hours may be selected at the student’s discretion. Faculty of Arts and Social Sciences breadth requirements must be completed so general electives should be considered for that purpose.

Joint Major in English and Women’s Studies

Advisors

Ms. B. Thorburn, Department of English, 6133 Academic Quadrangle, 604.291.4835
B. Wepruk, Department of Women’s Studies, 5105 Academic Quadrangle, 604.291.3593

This inter-departmental program is for those interested in exploring various relationships between the study of English literature and women’s studies. Interested students must plan their program in consultation with both department advisors, and should consult Guidelines for Course Selection available from each department.

Lower Division Requirements

English

Students must complete the lower division requirements of the English major program.

Women’s Studies

WS 101-3 Introduction to Women’s Issues in Canada
WS 102-3 Introduction to Western Feminisms

plus any three of

WS 200-3 Women in Cross-Cultural Perspective
WS 201-3 Women in Canada, 1600-1920
WS 202-3 Women in Canada, 1920 to the Present
WS 203-3 Female Roles in Contemporary Society
WS 204-3 Women, Science and Technology
WS 205-3 Women and Popular Culture
WS 206-3 Issues in Women’s Health and Health Care
WS 207-3 Introduction to Feminist Theory
WS 208-3 Researching Women’s Issues

15 credit hours

Upper Division Requirements

English

Students should select courses which focus on women writers and/or offer an explicit feminist perspective. Students must complete 20 upper division English credit hours as follows: one from the series ENGL 300-308, one from the series ENGL 310-322 and the remainder from anywhere in the series ENGL 300-394 and ENGL 441-446.

The following courses are recommended if the student is interested in critical theory.

ENGL 364-4 History and Principles of Literary Criticism
ENGL 366-4 Studies in Critical Approaches to Literature

Women’s Studies

Twenty credit hours in upper division women’s studies courses are required including one of WS 400, 405, or...
Undergraduate

Joint Major in History and Women's Studies

Advisors
Mrs. T. Wright BA (S Fraser), Department of History, 6026 Academic Quadrangle, 604.291.4429
B. Wepruk, Department of Women's Studies, 5105 Academic Quadrangle, 604.291.3593

This is an inter-departmental program for those who are interested in exploring the relationship between history and women's studies. Interested students must plan their program in consultation with the advisors in each department.

Lower Division Requirements
Women's Studies
Students must complete 15 credit hours in lower division women's studies courses including both of
WS 101-3 Introduction to Women's Issues in Canada
WS 102-3 Introduction to Western Feminisms
and one of
WS 200-3 Women in Cross-Cultural Perspective
WS 201-3 Women in Canada, 1600-1920
WS 202-3 Women in Canada, 1920 to the Present

Exceptionally and only with department permission, one course of designated women's studies credit in another department may substitute for one course.

History
Students must complete 18 credit hours in 100 and 200 level history courses, including at least six hours in 100 level history courses.

Upper Division Requirements
Women's Studies
Students must complete 20 credit hours in upper division women's studies courses including
WS 307-4 Women in British Columbia
and one of
WS 400-4 Methodological Issues in Women's Studies
WS 405-4 Theoretical Issues in Women's Studies

History
Students must complete 24 credit hours of 300 and 400 level history courses, of which 12 hours must be in 400 level courses. Students must take at least two from any two groups, and at least one from the remaining group. For a description of the groups, see "Lower Division Requirements" on page 175.

Joint Major in Humanities and Women's Studies

Advisors
Ms. C. Prisland, Department of Humanities, 5114 Academic Quadrangle, 604.291.4094
B. Wepruk, Department of Women's Studies, 5105 Academic Quadrangle, 604.291.3593

This inter-department program is for those interested in exploring relationships between humanities and women's studies. Students must plan their program in consultation with advisors in each department.

Lower Division Requirements
Women's Studies
Students must complete 15 credit hours in lower division women's studies courses including both of
WS 101-3 Introduction to Women's Issues in Canada
WS 102-3 Introduction to Western Feminisms

Humanities
Students must complete 15 credit hours including
HUM 101-3 Introduction to the Humanities
and two of
HUM 201-3 Great Texts in the Humanities I
HUM 202-3 Great Texts in the Humanities II
HUM 203-3 Great Texts in the Humanities III

and two further humanities courses at the lower division.

Upper Division Requirements
Women's Studies
Students must complete 20 credit hours in upper division women's studies courses including
WS 400-4 Methodological Issues in Women's Studies
WS 405-4 Theoretical Issues in Women's Studies

Exceptionally and only with permission of the department, one course of designated women's studies credit offered by another department may be substituted for one course.

Humanities
Twenty-two credit hours in upper division humanities courses which must include
HUM 495-2 Humanities Graduating Seminar
The following are recommended to fulfill this requirement.
HUM 320-4 The Humanities and Philosophy
HUM 321-4 The Humanities and Critical Thinking
HUM 325-4 The Humanities and the Natural World

Joint Major in Political Science and Women's Studies

For requirements, see "Joint Major in Political Science and Women's Studies" on page 189.

Joint Major in Women's Studies and Psychology

Advisors
Ms. L. Phylissik, Department of Psychology, 5252 Robert C. Brown Hall, 604.291.3599
Ms. B. Davino, Department of Psychology, 5249 Robert C. Brown Hall, 604.291.4840
B. Wepruk, Department of Women's Studies, 5105 Academic Quadrangle, 604.291.3593

Students are encouraged to consult advisors from both departments. This inter-departmental program explores relationships between psychology and women's studies. Joint major students (or prospective students) must plan their program in consultation with department advisors.

Psychology
To be admitted to the major program, students must obtain a final course grade of C (2.0) or better in each of the following courses.
PSYC 100-3 Introduction to Psychology I
PSYC 102-3 Introduction to Psychology II
PSYC 201-4 Introduction to Research Methods in Psychology
PSYC 207-3 Introduction to the History of Psychology
PSYC 210-4 Introduction to Data Analysis in Psychology

Note: the above requirement applies to courses transferred from other institutions as well as to courses taken at Simon Fraser University.

Complete two of
PSYC 221-3 Introduction to Cognitive Psychology
PSYC 241-3 Introduction to Abnormal Psychology
PSYC 250-3 Introduction to Developmental Psychology

Women's Studies

All of
WS 101-3 Introduction to Women's Issues in Canada
WS 102-3 Introduction to Western Feminisms
WS 203-3 Female Roles in Contemporary Society
plus any two of
WS 200-3 Women in Cross-Cultural Perspective
WS 201-3 Women in Canada, 1600-1920
WS 202-3 Women in Canada, 1920 to the Present
WS 204-3 Women, Science and Technology
WS 205-3 Women and Popular Culture
WS 206-3 Issues in Women's Health and Health Care
WS 207-3 Introduction to Feminist Theory
WS 208-3 Researching Women's Issues

15 credit hours

Upper Division Requirements
Psychology

Students must complete 20 upper division psychology credit hours. No more than five of these credit hours may be in directed studies. At least 11 upper division psychology credit hours must be taken at SFU.

Women's Studies

Twenty credit hours in upper division women's studies are required including one of WS 400, 405 or 412. Students who have taken WS 311 or 312 have met this requirement.

Exceptionally, and only with the permission of the department, one course of designated women's studies credit offered by another department may be substituted for one course.

20 credit hours

Joint Major in Sociology or Anthropology and Women's Studies

The Departments of Sociology and Anthropology, and Women's Studies have common interests in women's issues and social sciences teaching and research. This joint major is for those who share these interests.

Lower Division Requirements
Sociology
SA 101-4 Introduction to Anthropology
SA 150-4 Introduction to Sociology
SA 250-4 Introduction to Sociological Theory
SA 255-4 Introduction to Social Research
STAT 203-3 Introduction to Statistics for the Social Sciences

SA 231 is highly recommended.

Anthropology
SA 101-4 Introduction to Anthropology
SA 150-4 Introduction to Sociology
SA 255-4 Introduction to Social Research
STAT 203-3 Introduction to Statistics for the Social Sciences

and one of
SA 201-4 Anthropology of Contemporary Life
SA 286-4 Aboriginal Peoples and British Columbia: Introduction
SA 293-4 Special Topics in Anthropology
SA 231 is highly recommended.
Women's Studies
WS 101-3 Introduction to Women’s Issues in Canada
WS 102-3 Introduction to Western Feminisms
WS 200-3 Women in Cross-Cultural Perspectives plus two of
WS 201-3 Women in Canada, 1600-1920
WS 202-3 Women in Canada 1920 to the Present
WS 203-3 Female Roles in Contemporary Society
WS 204-3 Women, Science and Technology
WS 205-3 Women and Popular Culture
WS 206-3 Issues in Women’s Health and Care
WS 207-3 Introduction to Feminist Theory
WS 208-3 Researching Women’s Issues

Upper Division Requirements
Sociology
SA 395-4 Classical Sociological Thought
SA 355-4 Quantitative Methods
Students must also complete an additional 12 credit hours of upper division SA credit.

Anthropology Requirements
SA 301-4 Contemporary Ethnography
SA 356-4 Ethnography and Qualitative Methods
Students must also complete an additional 12 credit hours of upper division SA credit.
The following are highly recommended for both sociology and anthropology:
SA 319-4 Culture, Ethnicity and Aging
SA 356-4 Ethnography and Qualitative Methods
SA 332-4 The Anthropology of Childhood
SA 335-4 Gender Relations and Social Issues
SA 340-4 Social Issues and Social Policy Analysis
SA 420-4 Sociology of Aging

Women’s Studies
Twenty upper division women's studies credit hours are required including one of WS 400, 405 or 412.
Students who have taken WS 311 or 312 have met this requirement. Exceptionally and with department permission, one course designated as women’s studies credit offered by another department may be substituted for one WS course.

Minor in Gender Studies
This minor, which may be taken with any major program, offers opportunities to integrate understanding of gender relations in society and culture.

Students must complete 24 credit hours comprised of nine lower division credit hours and 15 upper division credit hours, with one lower division core course (GDST 200) required of all minors. For the remaining required credit hours needed to complete the minor, students can apply credit hours from regularly offered courses listed below, or from a list of designated courses that is posted in the women’s studies department.

It is the student’s responsibility to ensure completion of prerequisite and other department requirements before choosing elective courses.

Students planning a minor in gender studies should consult with the women’s studies advisor about course selection at their earliest opportunity.

Lower Division Requirements
Students must complete
GDST 200-3 Thinking About Gender
CRIM 213-3 Introduction to Women and Criminal Justice

CRIM 231-3 Introduction to the Judicial Process
SA 100-4 Perspectives on Canadian Society
SA 286-4 Aboriginal Peoples and British Columbia: Introduction

Upper Division Requirements
Students must complete 15 upper division credit hours selected from the following list and a list of designated courses that is posted in the women’s studies department.

If in doubt about your eligibility to register in a particular upper division course, contact the undergraduate advisor in the appropriate department well in advance of any attempt to register.

Lower Division Requirements
Candidates for a history honors or major may count either or both of WS 201 and 202 toward the 18 lower division history credits that are required.

Candidates for a history honors or major may count either or both of WS 201 and 202 toward the 18 lower division history credits that are required.

Extended Minor Program
An extended minor consists of the lower division major requirements and the upper division minor requirements in a subject area. See “Extended Minor Program” on page 145 for further details.

Certificate Program
This program provides academic training in women’s studies and practical training in community work on behalf of women. It is open to all who meet university admission requirements.

Lower Division Requirements
Eighteen credit hours including WS 101 or 102 are required.

Students must also complete five of WS 200-3 Women in Cross Cultural Perspectives
WS 201-3 Women in Canada 1600-1920
WS 202-3 Women in Canada 1920 to the Present
WS 203-3 Female Roles in Contemporary Society
WS 204-3 Women, Science and Technology
WS 205-3 Women and Popular Culture
WS 206-3 Issues in Women's Health and Care
WS 207-3 Introduction to Feminist Theory
WS 208-3 Researching Women’s Issues

Upper Division Requirements
Twelve credit hours from any 300-400 division WS courses is required. One course in another department or program may fulfill this requirement, if the course is designated for women’s studies credit.

Practicum
The practicum consists of satisfactory completion of supervised training and work in a community group which promotes the well-being of women (no grade is given). The practicum's terms are arranged by the women's studies advisor, the community group and the student. Students work at the practicum two and a half days a week for 13 weeks. At the end, the women's studies curriculum committee, in consultation with the community group and student, evaluates the student's performance. Those who have experience in an appropriate community group, and/or who are working in an appropriate community group while in this program, may apply to count that work toward partial or full practicum completion. The practicum develops skills and experience in applying the knowledge acquired in women's studies courses to community work and/or applying community work experiences to academic work.

Co-operative Education
This program is for qualified students to acquire practical experience in women’s studies. For admission, students must have completed 30 credit hours with a 3.0 CGPA and have completed WS 101, 102, and two 200 division WS courses. Transfer students must complete at least 15 SFU credit hours.

For details, see page 240. Arrangements for work semesters are made through the Faculty of Arts and Social Sciences co-op coordinator, who should be consulted at least one semester in advance.

Simon Fraser University 2005 - 2006

199 Faculty of Arts and Social Sciences – Department of Women’s Studies
Faculty of Business Administration

Associate Deans
M.R. Fizzell BEd, BComm, MSc (Sask), CMA, FCMA
C.F. Smart BCom, MBA, PhD (Br Col)

Professors Emeriti
P.L. Cheng BS (Nath Chiao Tung), MA (Missouri), PhD (Wis)
L.D. Etherington BEd ( Alta), MBA, PhD ( Wash)
J.P. Herzog BS, PhD ( Calif)
R.A. Holms BA, MA (Sask), PhD (Indiana)
L.P. Tienfield BSc (Leeds), MS (Carnegie Tech), PhD (Sask)
B. Schoner BEng (McG), MBA (Wont), PhD (Stan)
S.J. Shapiro AB (Harvard), MBA, PhD (Penn)
M.N. Stark, QC, BA, LLB, (Br Col)
R.G. Wyckham BA, MBA (Wont), PhD (Mich State)

Ming and Stella Wong Endowed Chair, Professor in International Business
R.L. Tung BA (York, Can), MBA, PhD (Br Col)

Professors
E.U. Choo BSc (Nan), MSc, PhD (Br Col)
D.R. Finlay BS (Harding), MA, PhD (American, DC), CPA
R.R. Grauer BCom, MBA (Br Col), PhD (Calif)
R.D. Iverson BA, MA (Monash), PhD (Iowa)
C.E. Love BEng, MBA (McM), PhD (Lond)
G.A. Mauser BA, PhD (Calif)
L.N. Meredith BA, MA, PhD (S Fraser)
L.Y. Pitt BComm, BCom (Honors), MBA (Pretoria), MCom (Rhodes), PhD (Pretoria)
G. Poitras BA (Dal), MSc, PhD, (Br Col)
A.R. Vining LLB (London), MBA, MPP, PhD (Calif)
J.H. Waterhouse BSc, MBA (Alta), PhD (Wont)
W.C. Wedley BCom (Br Col), MBA, PhD (Cal)
M.N. Wexler BA (McG), MA (Wont), PhD (York, Can)
J.L. Zaliczkowski BHE (Br Col), MSc (Genev), PhD (Calif)

Associate Professors
N.A.R. Abramson BA (Sask), MBA, PhD (Wont)
A. Bick BSc, MSc (Tel-Aviv), PhD (Case W Reserve)
D. Chung BComm (Manit), MSc (Sask), PhD (Alta)
C.M. Collins-Dodd BComm, BSc (Br Col)
D. Cfr BA (Vis, BC), MA (New Br), PhD (Br Col)
C.P. Egri BCom, MSc, PhD (Br Col)
C.E.N Emby BComm (Manit), MBA (Br Col), PhD (Alta), CA
J.N.P. Francis BSc (WI), MBA (York, Can), PhD (Wash)
I.M. Gordon BA, MA, PhD (Fraser), CGA
J.W. Heaney BA, MSc (Sask), PhD (Fraser), PhD (Alta)
S.M. Kates BBA, MBA, PhD (York)
P.C. Klein BSc, LLB, MBA (Wont), PhD (Tor), CFA
R. Krider BSc, MSc, PhD (Br Col)
T.B. Lawrence BComm, PhD (Alta)
I.P. McCarthy BEng (Kingston, UK), MSc, PhD (Sheff), Canada Research Chair

H. Merchant BCom (Bom), MBA (Clarion), PhD (Purdue)
M. Parent BCom, MBA, PhD (Qu)
D.C. Parker BCom, MBA (Calg), PhD (Wont)
B.H. Reich BA, MSc, PhD (Br Col)
R.W. Schwinit AB, PhD (Calif)*
J.P. Sheppard BS (Penn State), MBA (Indiana), PhD (Wash)
C.F. Smart BCom, MBA, PhD (Br Col)
C.H. Veld BA, MFE, PhD (Tilburg)
A.R. Warburton BA (Br Col), MSc (Montr), PhD (Br Col)

Assistant Professors
M.J. Brydon BEng, MEng (RMC)
J.C-W. Chang BA, MEng (Cornell)
M. Favere-Marchesi BSc, MAcc (Brigham Young), PhD (Calif), CPA
A.C. Gemino BA, MA, MBA (S Fraser), PhD (Br Col)
S. Gupta BEng (Honors) (Punjab Eng Coll, India), MBA, PhD (McG)
D.R. Hannah BCom (Br Col), PhD (Tex)
J. Jermias BA (State Sch Accountancy, Jakarta), MAcctg, PhD (Wat)
R. Krishnam BA (Calicutt, India), MSc Econ, PhD (Tilburg)
B.A. Lautach BA (Regina), MIR (Qu), PhD (MIT)
M.B. Lazarova M Intl Econ Relations (Nt & World Econ, Sofia, Bulgaria), MSc (Rutgers)
J. Li BA (Peking), PhD (Indiana)
N. MacKay BMath, MSc, PhD, PhD (Cant)
E.M.A. Maine BA, BSc (Qu), SM (MIT), PhD (Camb)
A.D. Pavlov BSc (Sonoma), MBA (Thunderbird), MA, PhD (Calif)
C. Perignon BA, MA, PhD (Geneva)
A. Rubin BA, MA (Hebrew), PhD (Br Col)
K.E. Ruckman BSc (Ala), MA (Qu), PhD (Br Col)
N. Saraf BEng (Baroda), MBA (Lucknow), PhD (S Calif)
J. Shepherd BSc, MBA (Warw), PhD (Strath)
D.R. Smith BBusines, MBusiness (Qld UT), PhD (Br Col)
A.G. von Nordenflycht BA (Stan), PhD (MIT)
C.D. Zatzick BA, PhD (Calif)

Adjunct Professors
S. Burke BCom, PhD (Br Col), CFA
N.J. Campbell BCom (Br Col), MBA (S Fraser), CA
P.M. Clarkson BSc (Trent), BA (Wont), BComm, MBA (Windsor), PhD (Br Col)
M.S. Fogel BBA, LLB (Texas), MED (Br Col)
M.W. Frein BA (Car), MA, PhD (Br Col)
S. Globerman BA (Brooklyn), MA (Calif), PhD (NY)
P. Kedrosky BEng (Can), MBA (Qu), PhD (Wont)
B.A. Morgan BBA, MPA (Texas), CPA
G. Wagenheim BS (Maryland), MBA (Syr)
Z.G. Zhang BSc, MA (Nankai, China), MBA (York), PhD (Wath)

Senior Lecturers
A. Duncan BA (Qu), MBA (York, Can), CA
M.R. Fizzell BEd, BComm, MSc (Sask), CMA, FCMA
E.A. Macdonald BSc (S Fraser), MBA (Monash)
R.A. Yates LLB, MBA (Br Col)

Lecturers
G. Havres BA (Calg), MA, PhD (York, Can)
M. Moore BA (Car), MA, PhD (Col)
M. Pizzel LB (Lond), MBA (Br Col)
K.G. Stewart BA (McM), MA (Br Col)

Instructor
Y. Chen BA, MA (Xiamen, China), PhD (Wont)

*joint appointment with economics

Undergraduate Degrees Offered
Bachelor of Business Administration (Honors)

Programs Offered
BBA – General Program
Major in Business Administration
Joint Major in Business Administration and Communication
Joint Major in Business Administration and Economics
Joint Major in Information Systems in Business Administration and Computing Science
Joint Major in Business Administration and Latin American Studies
Joint Major in Business Administration and Psychology
Major in Molecular Biology and Biochemistry

Joint Honors in Business Administration and Economics
Joint Honors in Molecular Biology and Biochemistry and Business Administration

Undergraduate Programs
Co-ordinator
Ms. C. Hamblin BA (S Fraser), 2389 Lohn Building, 604.291.4824 Tel, 604.291.5571 Fax

Advisors
Ms. M. Czormobay, undergraduate program advisor, 2325 Lohn Building, 604.291.3747 Tel, 604.291.5571 Fax
Ms. B. Dalpatria BBA (S Fraser), undergraduate program advisor, 2329 Lohn Building, 604.291.5541 Tel, 604.291.5571 Fax
Ms. J. Gehere BA (S Fraser), undergraduate program advisor, 2329 Lohn Building, 604.298.7063 Tel, 604.291.5571 Fax

Please visit www.sfubusiness.ca/bba/discover/ to contact us or send an e-mail to our advisors.

Introduction

The faculty offers honors, major, and minor programs, in co-operation with the Faculties of Applied Sciences, Arts and Social Sciences, and Science. The faculty also offers joint programs. For a complete list, please see Programs Offered above.

The value of a broadly based education is emphasized. Because of this objective, students will take mainly non-business courses during the first 60 hours, completing three categories of courses. The first category consists of lower division requirements. These are mainly tool courses to prepare for more advanced upper division business courses. The second category consists of group requirements which roughly correspond to humanities, social sciences and sciences. In the third category, students choose courses based on intellectual interest or usefulness in achieving academic goals. The first two categories should be completed during the first 60 hours of the degree program.

The University Calendar in effect at the time the student's honors or major is approved establishes the degree requirements for the graduation of that student. All students should confirm with the
undergraduate program co-ordinator the details of the requirements.

**Admission Information**

**Criteria**

Students will be selected competitively from one of four streams.

**Category 1 – direct from secondary school**

A portion of the annual admission will be selected from secondary school graduates based on the general Simon Fraser University admission requirements plus mathematics 12.*

**Category 2 – direct from college**

A portion of the annual admission will be selected from students transferring from community colleges or technical institutes. These students must have completed all of the required lower division courses (except BUS 207 and 254 which may be completed after faculty admission**). Students will be selected competitively based on the Simon Fraser University admission grade point average.

**Category 3 – all courses at Simon Fraser University**

A portion of the annual admission will be selected from students who have completed all of their courses at Simon Fraser University including the lower division requirement courses (except BUS 207 and 254 which may be completed after faculty admission**). Students will be selected competitively based on the cumulative grade point average.

**Category 4 – some SFU and other post-secondary courses**

A portion of the annual admission will be selected from students who have completed some courses at SFU and some at other post-secondary institutions including the lower division requirement courses (except BUS 207 and 254 which may be completed after faculty admission**). Students will be selected competitively based on a grade point average which will be a combination of grades earned at SFU and other institutions. **Note:** minimum SFU CGPA of 2.25 required. To be considered for admission to the faculty, students in categories 2, 3 and 4 must have completed each lower division requirement course with a minimum C- grade. The number of undergraduate students granted entry to the faculty is limited to 600 to 600 new students per academic year.

*or equivalent advanced placement or international baccalaureate courses as listed under General Admission Requirements for British Columbia Secondary Schools.

**If BUS 207 and/or 254 have been taken, they will be calculated into the GPA used for faculty admission.**

**Application Procedures**

Students applying under category 1 or 2 should apply to the faculty at the same time that they apply for admission to the University.

Category 3 or 4 applicants should apply to the faculty after completing the 30th credit hour and before completing the 60th. Students should apply during the semester in which the lower division requirements, as listed below (except BUS 207 and 254) are completed. Students not accepted upon initial application may reapply. Unsuccessful applicants may appeal through the faculty admissions appeals committee.

**Application Deadlines**

April 1* for summer semester
August 1* for fall semester
December 1* for spring semester

*application earlier in the semester is recommended Application forms are available in the undergraduate program offices in the second month of the semester.

**Non-Majors Access to Business Courses**

Priority in upper division business courses is given to those students who are approved in a business program. (A business program is defined as major, minor, honors and joint programs.) Students are permitted to undertake the lower division business courses without formal faculty admission.

Students other than those accepted into a program in business administration may take upper division business administration courses contingent upon:

- Space available on day 5 of the first week of classes
- Meeting the prerequisites for the requested course

First bachelor’s degree candidates in other Simon Fraser University faculties may have specific course requirements modified by the faculty, upon request.

**General Requirements**

In addition to the specific requirements for major, minor, honors and joint programs, all students should note the following.

In addition to normal university grade point average requirements, the faculty requires for continuance in all programs a minimum 2.25 CGPA and a minimum CGPA of 2.00 in all business administration courses. For a course to be accepted as fulfilling a prerequisite, or for a lower division requirement, or for a core course to be accepted in a student’s program in business administration, a student must have obtained a minimum grade of C- (C minus).

Students with fewer than 60 credit hours may enrol in a maximum of 16 hours per semester. Those with 60 or more may enrol in a maximum of 18 credit hours.

All upper division BUS courses have a prerequisite of 60 credit hours. However, approved Business Administration majors or minors may take 300 division BUS courses upon completion of 45 credit hours.

For a course to be accepted as fulfilling a prerequisite, or for a core course to be accepted in a student’s program in Business Administration, a student must have obtained a minimum grade of C- (C minus).

**Letters of Permission**

Please see “Student Documents” on page 29. The Faculty of Business Administration does not normally approve letters of permission for students already registered at Simon Fraser University.

**Major Program**

Students must complete at least 120 credit hours which must include a minimum of 50 credit hours outside the Faculty of Business Administration. Courses taken as part of group requirements (see “Group Requirements” below) or non BUS or non BUEC courses taken as part of the lower division requirements may count toward the 50 credit hours outside business administration.

**Lower Division Requirements**

BUEC 232-2 and Data and Decisions I (or STAT 270) BUS 207-3 Managerial Economics* (or ECON 301) BUS 237-3 Introduction to Computers and Information Systems in Business (or a 200 level CMPT course) BUS 251-3 Financial Accounting I BUS 254-3 Managerial Accounting I* BUS 272-3 Behavior in Organizations

**ECON 103-3 Principles of Microeconomics**

**ECON 105-3 Principles of Macroeconomics**

MATH 157-3 Calculus for the Social Sciences I (or MATH 151 or 154) and two of:

ENGL 101-3 Introduction to Fiction
ENGL 102-3 Introduction to Poetry
ENGL 103-3 Introduction to Drama
ENGL 104-3 Introduction to Prose Genres
ENGL 105-3 Introduction to Issues in Literature and Culture
ENGL 199-3 Introduction to University Writing
PHIL 001-3 Critical Thinking
PHIL 100-3 Knowledge and Reality
PHIL 120-3 Introduction to Moral Philosophy

*courses with an asterisk (BUS 207 and 254) may be completed following admission to the faculty.

**Group Requirements**

To satisfy the three group requirements (groups A, B and C), students must complete the following.

**Group A**

Students must complete four courses from at least two departments from the following: contemporary arts, English, history, humanities, languages, linguistics, philosophy.

**Group B**

Students must complete four courses from at least two of the following departments: archaeology, Asia-Canada, Canadian studies, communication, criminology, economics, education, geography (excluding all physical geography courses), gerontology, Latin American studies, political science, psychology, sociology and anthropology, women’s studies.

**Group C**


*Note:* courses selected to meet the group requirements may be upper or lower division and need not be completed prior to faculty application.

**Upper Division Requirements**

In the last 60 credit hours, students must take a minimum of 45 upper division credit hours, of which a minimum of 36 hours must be in business administration or BUEC courses.

The 36 upper division credit hours in business administration must include the following:

- all core courses (see **Core Courses below**)
- an area of concentration (see **Areas of Concentration below**)
- at least three 400 division BUS or BUEC courses (excluding practicum courses and BUS 478). These courses may count toward the requirements for the area(s) of concentration.

Further upper division courses in any discipline must be completed to bring the total upper division credit to 45 credit hours minimum.

Students may not register in upper division (300 and 400 level) business administration courses before completing the first 60 lower division credit hours, with two exceptions:

- approved business majors and minors may take upper division BUS courses after the completion of 45 lower division credit hours

Any 300 or 400 division course taken before the completion of 60 credit hours will not count as fulfilling the 45 upper division credit hours required in the final
60 hours of the program, or as part of the upper division hours for the major or minor.

**Core Courses**

Students majoring in business administration are required to complete all of

- BUS 303-3 Business, Society and Ethics
- BUS 312-4 Introduction to Finance
- BUS 336-4 Data and Decisions II
- BUS 343-3 Introduction to Marketing
- BUS 360-3 Business Communication
- BUS 393-3 Commercial Law
- BUS 478-3 Seminar in Administrative Policy
- BUS 374-3 Organization Theory
- BUS 381-3 Introduction to Human Resource Management

It is recommended that students complete BUS 360 before their 75th credit hour.

**Areas of Concentration**

Students must complete a concentration within one or more of the following areas by completing the courses specified below.

**Accounting**

- BUS 251-3 Financial Accounting I
- BUS 254-3 Managerial Accounting I
- BUS 319-3 Integrative Financial and Managerial Accounting
- BUS 320-3 Financial Accounting: Assets
- BUS 321-3 Financial Accounting: Equities
- BUS 421-3 Accounting Theory
- BUS 424-3 Managerial Accounting II

**Finance**

- BUS 312-4 Introduction to Finance
- BUS 315-4 Investments
- BUS 316-3 Derivative Securities
- and two of
- BUS 410-3 Financial Institutions
- BUS 413-4 Corporate Finance
- BUS 417-4 Security Analysis
- BUS 418-3 International Financial Management
- BUS 419-3 Advanced Derivative Securities

**International Business**

- BUS 346-3 International Business
- BUS 380-3 Comparative Management
- BUS 435-3 Management of International Firms
- and two of
- BUS 418-3 International Financial Management
- BUS 431-3 Business with East Asian Countries
- BUS 432-3 International Human Resources Management
- BUS 447-3 International Marketing Management

Other upper division courses deemed to have significant international business relevance may, with prior faculty permission, be substituted for the above courses. These may be offered in another faculty.

**Management and Organization Studies**

- two of
  - BUEC 384-3 Industrial Relations
  - BUS 374-3 Organization Theory
  - BUS 381-3 Introduction to Human Resource Management
  - and two of
  - BUEC 485-3 Collective Bargaining
  - BUS 432-3 International Human Resources Management
  - BUS 472-3 Seminar in Organizational Behavior
  - BUS 481-3 Human Resource Planning and Staffing

**Management Information Systems**

- BUS 362-4 Information Analysis and Systems Design
- BUS 364-3 Information Systems in Organizations and Society
- BUS 468-3 Management Issues in Information Systems
- and one of
  - CMPT 110-3 Event Driven Programming in Visual Basic
  - CMPT 117-3 Internet Programming Using JAVA
- and two of
  - BUS 454-4 Management Support Systems
  - BUS 464-3 Building Business Systems
  - BUS 466-3 Managing Data Communications
- BUS 492-495-3 Selected Topics courses

**Management Science**

- BUS 336-4 Data and Decisions II
- BUS 473-4 Operations Management
- and two of
  - BUEC 433-5 Forecasting in Business and Economics
  - BUS 437-3 Decision Analysis in Business
  - BUS 440-4 Simulation in Management Decision Making
  - BUS 445-3 Analysis of Data for Management
  - BUS 462-4 Management Support Systems

**Marketing**

- BUS 343-3 Introduction to Marketing
- BUS 347-3 Consumer Behavior
- BUS 442-4 Introduction to Marketing Research
- and two of
  - BUS 344-3 Business to Business Marketing
  - BUS 445-3 Analysis of Data for Management
  - BUS 446-4 Marketing Strategy
  - BUS 447-3 International Marketing Management
  - BUS 448-4 Advertising and Sales Promotion
  - BUS 449-3 Marketing and Society

*at least one of these must be from 344, 446, or 447

**Honors Program**

After the completion of 15 upper division business administration credit hours, students may apply to enter the honors program. Both the CGPA and GPA for upper division BUS and BUEC courses must be at least 3.00 (or 3.50 for honors first class) for entry into and continuance in the honors program.

Honors students must meet all major program requirements. The honors requires 12 credit hours of 400 division courses beyond the 120 required for the major. These hours must be in 400 division BUS or BUEC courses or in other faculties approved by the area co-ordinator. These 12 hours are in addition to the area of concentration and major program core course requirements. Advance approvals by the area co-ordinator and the faculty are required for the 12.

In the student's upper level (normally the last 72 hours of the honors program), the student must take a minimum of 57 upper division credit hours, of which 42 must be in BUS or BUEC courses.

**Minor Program**

- **Lower Division Requirements**
  - BUEC 232-4 Data and Decisions I (or STAT 270)
  - BUS 237-3 Introduction to Computers and Information Systems in Business (or a 200 level CMPT course)
- BUS 251-3 Financial Accounting I
- BUS 254-3 Managerial Accounting I*
- BUS 272-3 Behavior in Organizations
- ECON 103-3 Principles of Microeconomics
- ECON 105-3 Principles of Macroeconomics
- MATH 157-3 Calculus for the Social Sciences I

*may be completed after admission to the faculty

**Upper Division Requirements**

If permission is granted to take any 300 or 400 level BUS or BUEC course before the completion of 60 credit hours, then those courses will not count toward fulfilling the 16 upper division hours for the minor.

At least 16 upper division BUS or BUEC credit hours are required including the following.

- BUS 312-4 Business Finance
- BUS 343-3 Introduction to Marketing
- and one of
  - BUS 374-3 Organization Theory
  - BUS 381-3 Introduction to Human Resource Management

**SFU Business@Surrey**

SFU Business@Surrey offers the Bachelor of Business Administration (BBA) degree with concentrations in finance, marketing, entrepreneurship, and management and technology.

Since core courses are common requirements for the BBA across all campuses, the first two years of study are similar at each campus. The first year of study involves preparatory courses in academic disciplines that form the basis for business studies. At SFU Surrey, these courses are offered through integrated, cohort-based programs in the arts (Explorations), science (Science List 1 or 2) or technology (TechOne) programs. Students preparing for business by any of these routes should make sure that they take ECON 103, ECON 105, BUS 251 and MATH 157 (or MATH 151 or 154) during their first year of study. The details of each first year program can be viewed at www.sfubusiness.ca/surrey/programOverview/year_1one.php.

After the first year of preparatory study, students enter the Business Two program. The courses in the second year are the ones necessary to qualify for upper level courses in business.

**Second Year, Business Two Fall Semester**

- BUEC 232-4 Data and Decisions I
- BUS 237-3 Introduction to Computers and Information Systems in Business
- BUS 272-3 Behavior in Organizations
- Elective 1: Business recommendation – first English or Philosophy course
- Elective 2: Business recommendation – elective course

**Second Year, Business Two Spring Semester**

- BUS 207-3 Managerial Economics
- BUS 254-3 Managerial Accounting
- BUS 336-4 Data and Decisions II
- Elective 3: Business recommendation – first English or Philosophy course
- Elective 4: non Business elective (a 5th course in this semester is optional)

During years three and four, students complete core courses and take advanced courses in areas of concentration. Students who decide to specialize in a concentration offered at the other campus can transfer there to complete their studies. Alternatively, they can travel to the other campus to get their concentration courses.
Undergraduate

Third and fourth year courses will be phased in during 2006 and 2007. The sequencing and details of these courses can be perused at www.sfubusiness.ca/surrey/programOverview/year_two.php.

SFU Business@Surrey offers a Co-operative Education Program to students. Co-operative education formally integrates a student’s academic studies on campus with relevant work experience.

Joint Programs

Common Requirements of All Joint Programs

All joint major and honors programs require that the student must qualify for and receive admission to, and must remain qualified for continuance in, the Faculty of Business Administration, and must be accepted as a joint major or joint honors in the co-operating department or school.

The lower division requirements and core courses of the Faculty of Business Administration must be completed, except as specifically modified below (see “Core Courses” on page 202). For joint programs, BUS 360 is recommended but not required.

BUS 360 will be waived as a prerequisite for 400 division BUS courses for students in approved BUS joint programs.

With the exception of the joint major in molecular biology, biochemistry and business administration (MBB&B), students in joint programs may opt for a degree from either faculty involved. The MBB&B joint major results in a bachelor of science degree from the Faculty of Science. Faculty requirements will be governed by the faculty from which the student chooses to take a degree.

Joint Major in Business Administration and Communication

Students are required to complete at least 32 hours of upper division credit in business administration or BUEC courses including the core courses, and the courses specified below in marketing.

Marketing

Required Courses

BUS 343-3 Introduction to Marketing
BUS 347-3 Consumer Behavior
BUS 442-4 Introduction to Marketing Research
and at least one of the following 400 division marketing courses
BUS 445-3 Analysis of Data for Management
BUS 446-4 Marketing Strategy
BUS 448-4 Advertising and Sales Promotion
BUS 449-3 Marketing and Society

Communication Lower Division Requirements

CMNS 110-3 Introduction to Communication Studies
CMNS 130-3 Explorations in Mass Communication
and six 200 level CMNS courses for a total of 24 credit hours in communication including both of CMNS 221-3 Media and Audiences
CMNS 223-3 Advertising as Social Communication
and at least two of CMNS 260-3 Empirical Communication Research Methods
CMNS 261-3 Documentary Research in Communication
CMNS 262-3 Design and Method in Qualitative Communication Research

Communication Upper Division Requirements for Marketing Concentration

Students must complete 24 credit hours of upper division courses in communication including:

CMNS 323-4 Cultural Dimensions in Advertising (required)
CMNS 425-4 Applied Communication for Social Issues (recommended, not required)

Directed studies (readings) and field placement credit will not count as part of the upper division hours required by communication for the joint major. CMNS 425-4, Applied Communication for Social Issues, is recommended but not required.

Joint Major in Information Systems in Business Administration and Computing Science

Students must qualify for and receive admission to, and must remain qualified for continuance in, the Faculty of Business Administration, and must be accepted as a computing science joint major.

Lower Division Requirements

Students must complete one of BUEC 232-4 Data and Decisions I
STAT 270-3 Introduction to Probability and Statistics and either
CMPT 126-3 Introduction to Computer Science and Programming
or both of
CMPT 120-3 Introduction to Computing Science and Programming
CMPT 125-3 Introduction to Computer Science and Programming II
and all of
BUS 251-3 Financial Accounting I
BUS 254-3 Managerial Accounting I
BUS 272-3 Behavior in Organizations
CMPT 150-3 Introduction to Computer Design
CMPT 225-3 Data Structures and Programming
CMPT 275-4 Software Engineering
ECON 103-3 Principles of Microeconomics
ECON 105-3 Principles of Macroeconomics
MACM 101-3 Discrete Mathematics I
MACM 201-3 Discrete Mathematics II
MATH 151-3 Calculus I (or 157)
MATH 152-3 Calculus II (or 158)
MATH 232-3 Elementary Linear Algebra
and two of the following writing courses
ENGL 101-3 Introduction to Fiction
ENGL 102-3 Introduction to Poetry
ENGL 103-3 Introduction to Drama
ENGL 104-3 Introduction to the Essay as Literature
ENGL 105-3 Introduction to Issues in Literature and Culture
ENGL 199-3 University Writing
PHIL 100-3 Knowledge and Reality
PHIL 120-3 Introduction to Moral Philosophy

Upper Division Requirements

all of
BUS 312-4 Introduction to Finance
BUS 336-4 Data and Decisions II
BUS 343-3 Introduction to Marketing
BUS 364-3 Information Systems in Organizations and Society
BUS 468-3 Management Issues in Information Systems
BUS 478-3 Seminar in Administrative Policy
CMPT 300-3 Operating Systems
CMPT 307-3 Data Structures and Algorithms
CMPT 320-3 Social Implications of a Computerized Society
CMPT 354-3 Database Systems and Structures
CMPT 370-3 Information System Design
and one of
BUS 374-3 Organization Theory
BUS 381-3 Introduction to Human Resource Management
and one of
BUS 466-3 Managing Data Communications
CMPT 371-3 Data Communications and Networking plus nine credits of additional upper division CMPT courses, excluding CMPT 301. At least one of the courses must be at the 400 level or above.

Upon completion of these requirements, students may choose either a BBA degree (as offered by the Faculty of Business Administration), or a BSc degree (as offered by the Faculty of Applied Sciences) with the completion of two additional specific courses. See “Joint Major in Information Systems in Business Administration and Computing Science” on page 130 for details regarding the BSc requirement for joint majors.

Joint Major in Business Administration and Economics

Students must complete at least 29 upper division credit hours in business administration or BUEC,* including the core courses with the following exceptions.

• BUS 207 and 303 are waived.
• BUEC 333, which must be taken, will count as upper division economics hours rather than as upper division business administration hours.

Three courses beyond the core must be completed within the requirements of a single concentration.

At least two 400 division BUS or BUEC courses* (excluding practicum courses and BUS 478)
*These courses may be within the area of concentration.

Students must also complete at least 25 upper division credit hours in economics or BUEC* including ECON 301-4 Microeconomic Theory I: Competitive Behavior
ECON 305-5 Intermediate Macroeconomic Theory and at least one 400 division economics or BUEC* course (excluding ECON 431, 435, BUEC 433 and 485).

Economics Group Requirements

Students must complete one of ECON 102-3 The World Economy
ECON 110-3 Foundations of Economic Ideas
ECON 208-3 History of Economic Thought
ECON 250-3 Economic Development in the Pre-Industrial Period
ECON 309-3 Introduction to Marxian Economics
ECON 353-4 Economic History of Canada
ECON 355-4 Economic Development
ECON 395-5 Comparative Economic Systems
ECON 404-3 Honors Seminar in Methodology of the Social Sciences
ECON 407-3 Seminar in Marxian Economics
ECON 409-3 Seminar in Economic Thought
ECON 450-3 Seminar in Quantitative Economic History
ECON 451-3 Seminar in European Economic History
ECON 455-3 Seminar in Economic Development
* BUEC courses may count only once as business administration credits or as economics credits.
Joint Major in Business Administration and Geography

**Business Administration Requirements**
The student must successfully complete the core courses and complete one additional 400 division course in the Faculty of Business Administration.

**Geography Requirements**
The student must successfully complete a minimum of 15 credit hours of lower division geography courses including the following.
- GEOG 100-3 Human Geography
- GEOG 111-3 Physical Geography
- GEOG 221-3 Economic Geography

The student must successfully complete a minimum of 24 credit hours of upper division geography courses including the following.
- 12 credit hours at the 300 division courses
- 12 credit hours at the 400 division courses

**Joint Major in Business Administration and Latin American Studies**

**Business Administration Requirements**
The student must successfully complete the core courses (which must include BUS 346) and two of the following courses.
- BUS 380-3 Comparative Management
- BUS 434-3 Foreign Market Entry
- BUS 435-3 Management of International Firms
- BUS 439-3 North American International Trade Issues
- BUS 447-3 International Marketing Management

With the permission of the international business area co-ordinator and the faculty, another course may be substituted for one of the seven listed above.

**Latin American Studies Requirements**

**Lower Division**
Students must demonstrate reading and speaking competence in Spanish or Portuguese equivalent to successful completion of three college level courses. A minimum of 12 hours is required including the following courses.
- LAS100-3 Images of Latin America
- LAS 140-3 Cultural Heritage of Latin America
- LAS 200-3 Introduction to Latin American Issues

The remaining three credit hours are taken from the approved list of Latin American content courses (see “Latin American Studies Program” on page 180).

**Upper Division**
Students must complete 20 upper division Latin American studies course credit hours, including at least 16 credit hours in both LAS 300 and 400 division courses. The remaining four hours may be taken from the list of approved Latin American content courses.

**Joint Major in Molecular Biology and Biochemistry and Business Administration**

For information, see “Joint Major in Molecular Biology and Biochemistry and Business Administration” on page 231.

**Joint Major in Business Administration and Psychology**

**Business Administration Requirements**
- The student must successfully complete at least one 400 management and organization studies course.
- Students must successfully complete the business administration core courses, except with advance permission of the Faculty of Business Administration, the combination of PSYC 210 and 301 may be substituted for the combination of BUEC 232* and BUS 336.

**See note below.**

**Psychology Requirements**

**Lower Division Requirements**
- PSYC 100-3 Introduction to Psychology
- PSYC 102-3 Introduction to Psychology II
- PSYC 201-4 Introduction to Research Methods in Psychology
- PSYC 207-3 Introduction to the History of Psychology
- PSYC 210-4 Introduction to Data Analysis in Psychology
- PSYC 260-3 Introduction to Social Psychology

*to be admitted to the psychology program, students must obtain a final course grade of C (2.0) or better in each of these courses.

**Note:** The above requirement applies to courses transferred from other institutions as well as to courses taken at Simon Fraser University.

**Complete one of**
- PSYC 221-3 Introduction to Cognitive Psychology
- PSYC 241-3 Introduction to Abnormal Behavior
- PSYC 250-3 Introduction to Developmental Psychology
- PSYC 270-3 Introduction to Theories Personality
- PSYC 280-3 Introduction to Biological Psychology

**Upper Division Requirements**
Complete 21 credit hours in upper division psychology courses. No more than five of these credit hours may be in directed studies. At least 11 upper division psychology credit hours must be taken at Simon Fraser University.

**Note:** students must complete either BUEC 232* and BUS 336 or PSYC 210 and 301. Students who complete BUS 336 must still fulfill a minimum of 21 upper division psychology credit hours. Students who complete PSYC 301 must still fulfill a minimum of 24 upper division credit hours in business administration.

**Joint Honors in Business Administration and Economics**

**Economics Group Requirements**
Students must include at least one
- ECON 102-3 The World Economy
- ECON 110-3 Foundations of Economic Ideas
- ECON 208-3 History of Economic Thought
- ECON 250-3 History of Economic Development A
- ECON 252-3 History of Economic Development B
- ECON 309-3 Introduction to Marxian Economics
- ECON 353-5 Economic History of Canada
- ECON 355-4 Economic Development
- ECON 395-5 Comparative Economic Systems
- ECON 404-3 Honors Seminar in Methodology of the Social Sciences
- ECON 407-3 Seminar in Marxian Economics
- ECON 409-3 Seminar in Economic Thought
- ECON 450-2 Seminar in Quantitative Economic History
- ECON 453-3 Seminar in Economic Development

**Lower Division Requirements**
The requirements are the same as for the joint major in business administration and economics. Refer to that section.

**Upper Division Requirements**
- at least 35 upper division credit hours in business administration including the core courses
- an area of concentration
- at least three 400 division courses (excluding practicum courses and BUS 478). These courses may be within the area of concentration.
- plus at least 32 upper division credit hours in Economics or BUEC including
- BUEC 333-4 Statistical Analysis of Economic Data
- ECON 301-4 Microeconomic Theory I: Competitive Behavior
- ECON 305-5 Intermediate Macroeconomic Theory
- ECON 331-5 Introduction to Mathematical Economics
- ECON 402-3 Advanced Topics in Microeconomics (or 403)
- ECON 435-5 Quantitative Methods in Economics
- ECON 499-6 Honors Seminar in Economics

**Joint Honors in Molecular Biology and Biochemistry and Business Administration**

For information, see “Joint Honors in Molecular Biology and Biochemistry and Business Administration” on page 231.

**Second Bachelor’s Degree**
Please see “Second Bachelor’s Degrees” on page 30.

The minimum requirements for completion of a second undergraduate degree in business administration (BBA) are:
- formal admission to the program
- lower division course requirements
- group requirements
- 45 hours of upper division course work, of which 36 credits must be business administration (BUS) or business administration/economics (BUEC) course work
- 36 hours of upper division BUS or BUEC must include core courses, area of concentration and 400 division requirement

See “Major Program” on page 201 for information.

**Exchange Programs**

**Contacts**
Ms. C. Hamblin, undergraduate program co-ordinator, 2389 Lohn Building, 604.291.4624
Ms. J. Ellis, co-ordinator, International Mobility, SFU International, 1200 Maggie Benston Student Services Centre, 604.291.4555

The faculty participates in undergraduate student exchange agreements with the following institutions.

**Australia**
- Monash University

**Chile**
- Pontificia Universidad Catolica de Chile (PUC)

**China**
- Chinese University of Hong Kong
- University of Hong Kong

**Denmark**
- Copenhagen Business School

**Finland**
- Helsinki School of Economics
For more information about application deadlines, etc., please contact SFU International or see www.sfu.ca/international.

Co-operative Education Program
2310 Lohn Building, 604.291.3619 Tel, 604.291.5922 Fax, www.sfu.ca/coop

The Faculty of Business Administration offers co-operative education to students including the new Surrey campus. Co-operative education formally integrates a student’s academic studies on campus with relevant work experience. Employers from business, industry and government support and participate in the program. This ‘hands-on’ approach to education extends the learning process beyond the limits of the classroom and into the working world by alternating full time study semesters with full time paid work semesters of career-related practical experience.

For those seeking a professional accounting designation (CA, CGA, CMA) arrangements have been made with respective accounting organizations so that work experience obtained during the program may be recognized toward the required practical experience.

Admission
Admission to the Faculty of Business Administration is required before intake to the co-operative education program is considered.

A student must remain in good academic standing in the Faculty of Business Administration to continue in the program.

Co-op programs are open to Canadian citizens, permanent residents, and visa students.

Application Process
Co-operative education has an application process which includes completing the Bridging Online (BOL) course. Refer to www.sfu.ca/coop/bol. BOL must be completed prior to your business co-op intake.

Practicum Course Requirements
To qualify for the bachelor of business administration with a major in business administration and a co-operative education designation, students must meet University and Faculty of Business Administration graduation requirements.

In addition, students who choose the chartered accountancy option must complete five work semesters. A co-operation education designation requires four work semesters and a certificate requires three work semesters.

During study semesters a student must maintain full time status. A brochure which outlines program features is available from the business administration co-op education program co-ordinators.

Business Career Services
0300 Maggie Benston Student Services Centre, 604.291.3106 Tel, 604.291.5926 Fax, business_careers@sfu.ca, www.sfu.ca/hccc/pages/careers.html

Business Career Services is a specialized program of the Health, Counselling and Career Centre. Programs and services assist undergraduate and graduate students in the Faculty of Business Administration with preparation for business careers. One-on-one career counselling and advising, workshops, targeted career fairs, special events and on-campus recruitment activities provide students with opportunities to meet and network with employers. Extensive career-related resources are available in the Student Resource Lounge and online at www.sfu.ca/hccc. SFU business students and alumni have access to full time, part time, on-going and temporary work opportunities via workopolisCampus.com.
Faculty of Education

8622 Education Building, 604.291.3395 Tel, 604.291.3203 Fax, www.educ.sfu.ca

Dean
P. Shaker BA, MA, PhD (Ohio State)

Associate Dean
P.P. Grimmett BA (Newcastle, UK), BEd (Keele), MA, MEd (Alta), EdD (Br Col)

Professors Emeriti
P.E.F. Coleman BA, MA, EdD (Br Col)
J.F. Ellis BA, MA (Br Col), EdD (Calif)
M. Gibbons BA (Br Col), MA (Wash), EdD (Harv)
A.C. Kazeppides BA (Athens), MEd, EdD (Temple)
G. Kirchner BPE (Br Col), MS, EdD (Oregon)
M. McClaren BEd, PhD (Br Col)
A.A. Obadia BA (Montr), MA (McM), PhD (Ont)
S. Wassermann BS, MS (CCNY), EdD (NY)
M.F. Wideen BA, BEd, MEd (Sask), PhD (Colorado)
B.Y.L. Wong BA (Keele), MA (Vis, BC), EdD (Br Col)

Professors
S. Ballin BA, BEd, MEd, PhD (Tor)
R. Barrow BA (Oxf), PhD (Lond)
R. Case Dip Ed (Vis, BC), MA, PhD (Br Col)
S.C. de Castell BA (Sir G Wms), MEd (Lond)
K. Egan BA (Lond), PhD (Cornell), Canada Research Chair
I. Geva-May BA (Jerusalem), MA (Haifa), PhD (Manc)
R. Grimmett BA (Newcastle, UK), BEd (Keele), MA, MEd (Alta), EdD (Br Col)
A.O. Horvath BA (Sir G Wms), MSW (McG), EdD (Br Col)
D. Kaufman BEng, MEng (McG), EdD (Br Col)
C.M. Mamchur BA, BEd, MEd (Sask), EdD (Flor)
J. Martin BA, MEd, PhD (Alta)
S. Richmond BEd, (Calg), MEd (Nott), PhD (Calg)
P. Shaker BA, MA, PhD (Ohio State)
K. T. Schey BEd, MEd (Alta), PhD (Tor)
P.H. Winne BSEd, MSED (Bucknell), PhD (Stan), Canada Research Chair
R. Zazkis BA, MA, DSc (Haifa Technion)

Associate Professors
C.L. Amundsen BA (Wash), MEd (Alaska), PhD (Montr)
H. Bai BA (Calg), PhD (Br Col)
J.D. Beynon BA (Brooklyn), MA (Brown), PhD (Union Grad Sch)
D.H. Dagenais BEd, MA (McG), PhD (Montr)
L. Kanevsky BA (Fraser), MARSEP (San Diego), MPhil, PhD (Col)
L. LaRocque BEd (McG), MA (Vis, BC), PhD (S Fraser)
L.J. LeMare BA (S Fraser), MA, PhD (Wat)
A.M. MacKinnon BSc, BEd, MSc (Calg), EdD (Br Col)
D. Moore BA, MA, PhD (Stendhal)
J.C. Nesbit BA (Br Col), MEd, PhD (Alta)
E. Samier BA (Sask), MA (New Br), MEd, PhD (Vis, BC)
Y. Senychyn BEd, MusM, EdD (Tor)
S.J. Smith BEd (Kelvin Grove CAE), BHMS, MEd (Qld), PhD (Alta)
J.H. Sugarman BA (Wat), MA, PhD (S Fraser)
J. Thompson BA (Vis, BC), PhD (Ott)

Assistant Professors
C.W. Bingham BA (Whitman), MA, PhD (Wash)
S.R. Campbell BA (Calg), PhD (S Fraser)
W. Cassidy BA, MEd (S Fraser), PhD (Chic)
M. Fettes MA (Camb), MSc (Br Col), PhD (Tor)
E. Gardner BEd (Br Col), EdM (Harvard), PhD (S Fraser)
M.J. Hoskyn BHE, MA (Br Col), PhD (Calif)
D. Laitsh BA (VIP&SU), MEd (Virginia), PhD (American DC)
P. Lijedahl BSc, PhD (S Fraser)
M. MacDonald BEd, MA, PhD (Vis, BC)
G. Madoc-Jones BA (Wales), MA, PhD (S Fraser)
P. Neufeld BEd (Br Col), MEd, PhD (N Carolina)
D.K. O’Neill BSc (Brock), PhD (III)
D. Paterson BEd (Alta), MA (Br Col), PhD (Br Col)
M. Schmidt BEd, MEd, PhD (Tor)
C. Snowber BA (SWMass), MA (Gordon-Conwell), PhD (S Fraser)
R. Stocke BGS (S Fraser), MA, PhD (Wont)
L. Sterling BA (S Fraser), MA, PhD (Br Col)
J. Van Aast BEd (Wont), MSc (Alta), PhD (Tor)
D. Zandvliet BSc (Guelph), MA (Vis, BC), PhD (Curtin)

Senior Lecturer
L.G. Wiebe BSc (Br Col)

Laboratory Instructor
D.A. Bell BA (S Fraser)

Undergraduate Degrees Offered
Bachelor of Education (Honors) Bachelor of Education

Diplomas and Certificate Offered
Certificate in Literacy Instruction Post Baccalaureate Diploma (General) Post Baccalaureate Diploma in Early Childhood Education Post Baccalaureate Diploma in Special Education

Undergraduate Programs
8560 Education Building, 604.291.3614 Tel, 604.291.3829 Fax, www.educ.sfu.ca/ugradprogs

Advisor
604.291.3436 Tel, 604.291.3829 Fax

Bachelor of Education Program
The BEd must be approved by the Faculty of Education. Major or minor requirements also must be approved by the department(s) in which these requirements are administered. To complete a BEd, a student must make application, and be accepted to the professional development program.

The BEd is designed to prepare students academically and professionally for a teaching career at either the elementary or secondary school level. Students considering the BEd degree should seek academic counselling for:

Lower divisions (first 60 credit hours)
Contact Student Academic Resources, 3300 Maggie Benston Student Services Centre, 604.291.4356

Upper divisions (BEd degree, education minors, certificate in literacy instruction, post baccalaureate diplomas)
Contact the Undergraduate Advising Office, 8625 Education Building, 604.291.3798.

Transfer Credit
Students may be admitted to the BEd program with advance standing. Credit may be granted for appropriate work at other institutions to a 60 credit hour maximum excluding professional education, or 90 credit hours including an acceptable year of professional education (EDUC 401, 402 and 405).

General Program
Requirements
Students must complete a minimum of 150 credit hours which includes one of the following.

• a major from the Faculties of Applied Sciences, Arts or Science or
• two minors/extended minors, completed from the Faculties of Applied Sciences, Arts or Science or
• the Mathematical Sciences specialization completed from the Faculty of Education and all of the following.

• a minor from the Faculty of Education (may be fully or partially completed during EDUC 404)
• EDUC 401, 402, 405
• a minimum of 54 credit hours in upper division courses (numbered 300 and 400), excluding EDUC 401, 402, 405 and 406
• two of EDUC 220, 230, 240 or 250
• a minimum of 24 credit hours of upper division education courses (excludes EDUC 401, 402, 405, 406 and all EDPR courses) which must include two Faculty of Education Designs for Learning courses (may include courses taken for EDUC 404 or for the education minor)
• certificate in liberal arts

Students must achieve both a minimum cumulative grade point average (CGPA) of 2.0 and a minimum grade point average (GPA) of 2.0 calculated on the basis of all upper division courses taken at SFU.

Honors Program
Requirements
Students must complete a minimum of 162 credit hours which include:

• an honors from the Faculties of Applied Sciences, Arts or Science
• a minor from the Faculty of Education (may be fully or partially completed during EDUC 404)
• a minimum of 54 credit hours in upper division courses (numbered 300 and 400), excluding EDUC 401, 402, 405 and 406
• two of EDUC 220, 230, 240 or 250
• EDUC 401, 402 and 405
• a minimum of 24 credit hours of upper division education (excludes EDUC 401, 402, 405 and 406) which must include two education designs for learning courses (may include courses taken for EDUC 404 and the education minor)
• certificate in liberal arts

Students must achieve both a minimum cumulative grade point average (CGPA) of 3.0 and a minimum grade point average (GPA) of 3.0 calculated on the basis of all upper division courses taken at SFU.

Bachelor of Education as a Second Degree
To be admitted, students must possess a bachelor’s degree and have been admitted to the Professional Development Program.

Requirements
45 upper division credit hours in education which includes

EDUC 401-8 Introduction to Classroom Teaching
EDUC 402-7 Studies of Educational Theory and Practice
EDUC 405-15 Teaching Semester

plus a minor from the Faculty of Education plus successful completion of EDUC 404 (minimum of 15 hours of upper EDUC credits)
Any additional coursework needed to address academic requirements for a professional certificate and additional requirements to complete a minor must be done over and above the required 45 credits.

**Note:** It is the student’s responsibility to ensure that they meet the BC College of Teachers requirements for a Professional Teaching Certificate.

### Professional Development Program

This one year teacher training program is an integral component of the Bachelor of Education requirements. Admission is by application. Declaration of BED as a degree goal does not guarantee acceptance into PDP. See “Professional Development Program (PDP)” on page 210.

### Mathematical Sciences Specialization

For a bachelor of education degree with a mathematical sciences specialization, students must complete 150 hours which include the following, as well as all the bachelor of education requirements.

#### Lower Division Requirements

Students must complete at least 20 credit hours from:

- CMPT 101-4 Introduction to Computer Programming
- CMPT 201-4 Data and Program Abstraction
- MACM 101-3 Discrete Mathematics I
- MACM 201-3 Discrete Mathematics II
- MATH 113-3 Euclidean Geometry
- MATH 151-3 Calculus I
- MATH 152-3 Calculus II
- MATH 154-3 Calculus I for the Biological Sciences
- MATH 155-3 Calculus II for the Biological Sciences
- MATH 171-1 Computer Explorations in Calculus I
- MATH 172-1 Computer Explorations in Calculus II
- MATH 190-4 Principles of Mathematics for Teachers*
- MATH 232-3 Elementary Linear Algebra
- MATH 242-3 Introduction to Analysis
- STAT 270-3 Introduction to Probability and Statistics

*students who have taken, or are currently taking, any calculus course may not take MATH 190 for further credit

#### Upper Division Requirements

Students must also complete at least 30 credit hours from the following:

- CMPT 320-3 Social Implications of a Computerized Society
- CNS 491-3 Technology and Canadian Society
- HIST 360-4 History of Science: 1100-1725
- MACM 316-3 Numerical Analysis I
- MATH 308-3 Linear Programming
- MATH 310-3 Introduction to Ordinary Differential Equations
- MATH 332-3 Introduction to Applied Algebraic Systems
- MATH 339-3 Groups and Symmetry
- MATH 342-3 Elementary Number Theory
- MATH 343-3 Applied Discrete Mathematics
- MATH 380-3 History of Mathematics
- MATH 439-3 Algebraic Systems
- MATH 447-4 Coding Theory
- STAT 330-3 Introduction to Statistical Inference

### Minor Programs

#### Minor in Counselling and Human Development

This minor teaches a combination of theoretical, empirical, and practical matters central to the understanding and practice of counselling and human development. The course work provides students with a strong theoretical and critical foundation on which to base new research in counselling and teaching practices aimed at enhancing human development.

#### Lower Division Requirements

EDUC 220-3 Introduction to Educational Psychology
EDUC 222-3 Research Methods in Educational Psychology
PSYC 250-3 Introduction to Developmental Psychology

#### Upper Division Requirements

(minimum of 15 credit hours)

Students must complete both of

- EDUC 322-3 Social Lives of School Children
- EDUC 323-3 Introduction to Counselling Theories

Students must also complete three electives selected from the following. At least two of

- EDUC 327-3 Self, Psychology and Education
- EDUC 328-3 Theories of Career Development and Education
- EDUC 425-4 Helping Relationships
- EDUC 444-4 Early Childhood Education

If courses chosen from the list above do not add up to a minimum of 15 credit hours, then one additional course chosen from the following is required:

- EDUC 422-4 Learning Disabilities
- EDUC 426-4 Nature and Nurture of Gifted Students
- EDUC 447-4 Ethical Issues in Education
- EDUC 442-4 Multicultural/Anti-Racist Education
- EDUC 445-4 Legal Context of Teaching

#### Minor in Curriculum and Instruction

This minor is for those desiring theoretical and practical expertise in contemporary approaches to curriculum development and instructional design.

#### Lower Division Requirements

Students must complete two of

- EDUC 220-3 Introduction to Educational Psychology
- EDUC 230-3 Introduction to Philosophy of Education
- EDUC 240-3 Social Issues in Education
- EDUC 250-3 Studies in the History of Education in the Western World

#### Upper Division Requirements

Students must complete

EDUC 471-4 Curriculum Development: Theory and Practice

plus 11 upper division EDUC credit hours and/or EDPR courses to total 15 credit hours.

#### Minor in Early Childhood Education

This minor provides a focus for students wishing to work with children aged three through eight.

#### Lower Division Requirements

PSYC 250-3 Introduction to Developmental Psychology

#### Upper Division Requirements

EDUC 464-4 Early Childhood Education
plus two of

- EDUC 330-3 Movement Language elements for Dance in Education
- EDUC 457-4 Drama and Education
- EDUC 459-4 Instructional Activities in Physical Education
- EDUC 465-4 Children’s Literature
- EDUC 477-4 Designs for Learning: Art
- EDUC 478-4 Designs for Learning: Music

plus one of

- EDUC 367-4 Teaching Children from Minority Language Backgrounds in Elementary Classrooms
- EDUC 423-3 Learning Disabilities
- EDUC 441-4 Multicultural/Anti-Racist Education
- EDUC 472-4 Designs for Learning: Elementary Language Arts
- EDUC 474-4 Designs for Learning: Reading
- EDUC 474-4 Designs for Learning: Elementary Social Studies

EDUC 475-4 Designs for Learning: Elementary Mathematics
EDUC 476-4 Designs for Learning: Elementary Sciences

### Minor in Education and Technology

This minor provides a structure for undergraduate studies of education and technology.

#### Lower Division Requirements

Students must complete

EDUC 260-3 Learning and Teaching Through Technology

and one of

- EDUC 220-3 Introduction to Educational Psychology
- EDUC 230-3 Introduction to Philosophy of Education
- EDUC 240-3 Social Issues in Education

#### Upper Division Requirements

Students must complete all of

EDUC 358-3 Foundations of Educational Technology
EDUC 463-4 Multimedia for Curriculum Design
EDUC 482-4 Designs for Learning: Information Technology

and one of

- EDUC 320-3 Instructional Psychology
- EDUC 428-4 Nature and Nurture of Gifted Students
EDUC 437-4 Ethical Issues in Education
EDUC 471-4 Curriculum Development: Theory and Practice

#### Minor in Educational Psychology

Educational psychology makes theoretical and experimental inquiries into how students learn from instruction, how they acquire and express motivation in educational settings, and how they develop skills in school subjects and for learning. This program also studies how this first line of inquiry contributes to designs for instructional experiences that promote a full spectrum of achievements.

The minor consists of required courses that develop a broad background in educational psychology supplemented by electives that deepen fundamentals. For a teaching career, it provides a research based foundation in the psychology of teaching and learning underlying a professional studies program. For others, the minor articulates applied psychology serving one of our society’s most important aims, education of people of all ages.

#### Lower Division Requirements

EDUC 220-3 Introduction to Educational Psychology
EDUC 222-3 Research Methods in Educational Psychology

#### Upper Division Requirements

Students must complete all of

EDUC 320-3 Instructional Psychology
EDUC 325-3 Assessment for Classroom Teaching
EDUC 326-3 Classroom Management and Discipline

plus two of

- EDUC 327-3 Self, Psychology and Education
- EDUC 422-4 Learning Disabilities
- EDUC 426-4 Nature and Nurture of Gifted Students
- EDUC 464-4 Early Childhood Education

#### Minor in Environmental Education

This minor develops teachers’ skills in the design and operation of environmental and outdoor education programs from kindergarten through grade 12, and in the organization and operation of residential and day centre outdoor education, wilderness outdoor recreation, and other interdisciplinary environmental school programs.

#### Prerequisite Courses

Students must complete nine hours selected from:

- BISC 102-4 General Biology
- BISC 204-3 Introduction to Ecology*
- EDUC 240-3 Social Issues in Education

*This course is not currently offered.
EDUC 441-3 Introduction to Kinesiology
PHIL 001-3 Critical Thinking
PHIL 120-3 Introduction to Moral Philosophy
PSYC 106-3 Psychological Issues in Contemporary Society
SA 150-4 Introduction to Sociology
SA 202-4 Post-Industrial Society
*students with credit for GEOG 215 may not receive credit for BISC 204

**Required Courses**
Students must complete a minimum of 14 hours as specified below.

**EDUC 452-8 Environmental Education**
plus two of
BISC 304-3 Animal Ecology
BISC 306-3 Invertebrate Biology
BISC 310-3 The Natural History of British Columbia
BISC 317-3 Insect Biology
BISC 337-3 Plant Biology
BISC 404-3 Plant Ecology
EDUC 414-4 Designs for Learning: Secondary Social Studies
EDUC 416-4 Designs for Learning: Secondary Science
EDUC 433-4 Philosophical Issues in Curriculum
EDUC 494-4 Curriculum Development: Theory and Practice
EDUC 474-4 Designs for Learning: Elementary Social Studies
EDUC 476-4 Designs for Learning: Elementary Science
EDUC 496-4 Instructional Activities in Physical Education
EDUC 482-4 Designs for Learning: Information Technology
GEOG 324-3 World Resources
GEOG 369-4 Human Microgeography

**Minor in International and Global Education**
This minor provides opportunities to explore an interdisciplinary, experientially based approach to international and global education so that appropriate learning experiences can be created and infused in any given elementary and secondary course.

**Lower Division Requirements**
Students must complete one of the following.
EDUC 100-3 Questions and Issues in Education
EDUC 220-3 Introduction to Education Psychology
EDUC 240-3 Social Issues in Education
EDUC 250-3 Studies in the History of Education in the Western World

**Upper Division Requirements**
Students must complete a minimum of 15 hours as specified below.

**EDUC 230-3 Introduction to Philosophy of Education**
**EDUC 370-3 Human Geography**
**EDUC 414-4 Multicultural/Anti Racist Education**
**EDUC 444-8 Law in the Curriculum**
**EDUC 452-8 Environmental Education**
**EDUC 467-4 Curriculum and Instruction in Teaching English as a Second Language**
**EDUC 471-4 Curriculum Development: Theory and Practice plus an Inter-cultural/International Experience**
An academic intercultural and/or international experience is required for students before completing this minor. This postsecondary experience may be an intercultural experience within Canada, such as a practicum experience in a First Nations community, or outside of Canada. Examples include:
- Co-op placement in an intercultural/international setting
- Participation in an international field school program
- International student exchange semester outside of Canada or the United States
- Teaching English as a foreign language outside of Canada or the United States

Experiences fulfilling the requirements of this minor will need to meet the following criteria:
- Successful completion of the program experience as indicated by an official document from the supervising institution
- An experience with a high degree of participatory involvement
- An experience completed within five years prior to registering in the minor or five years after completing the course work for the minor.

Those who successfully complete the PDP ITEM program or international field school at SFU will meet the above requirements.

All other applicants must submit a report indicating the nature of their experience, their analysis of their learning, and a letter of support from a person involved in supervising the experience. The director of undergraduate programs will oversee the assessment of these submissions. A follow-up interview may be required.

**Minor in Learning Disabilities**
This minor enhances understanding of learning disabilities and provides competence in identification and non-clinical treatment of learning disabilities.

**Lower Division Requirements**
EDUC 220-3 Introduction to Education Psychology
**Recommended Lower Division Courses**
It is strongly recommended that minor program students complete at least one of the following.
KIN 110-3 Human Nutrition: Current Issues
PSYC 102-3 Introduction to Psychology II
PSYC 103-3 Introduction to Psychology I
PSYC 221-3 Introduction to Cognitive Psychology
PSYC 250-3 Introduction to Developmental Psychology

**Upper Division Requirements**
Students must complete a minimum of 14 credit hours as specified below.

**EDUC 422-4 Learning Disabilities**
**EDUC 424-4 Learning Disabilities: Laboratory**
plus one of
**EDUC 430-3 Movement Language Elements for Dance in Education**
**EDUC 436-3 Infusing Global Perspectives in Curriculum**
and either
one Designs for Learning course and one of the following
or two of the following
EDUC 311-3 Foundations in Aboriginal Education,
Language and Culture
EDUC 367-4 Teaching Children and Minority Language Backgrounds in Elementary Classrooms
EDUC 382-4 Diversity in Education: Theories, Policies, Practices
EDUC 441-4 Multicultural/Anti Racist Education
EDUC 444-8 Law in the Curriculum
EDUC 452-8 Environmental Education

**Minor in Physical Education**
This minor program provides students in the professional development program with competence to teach physical education.

**Prerequisite Courses**
Prospective students should complete at least three of the following courses (or approved transfer courses from community colleges or other universities) prior to enrolling in EDUC 401. Students should choose those courses which are prerequisites to the upper division courses they will take for the minor.
EDUC 220-3 Introduction to Education Psychology
EDUC 230-3 Introduction to Philosophy of Education
EDUC 240-3 Social Issues in Education
FPA 120-3 Introduction to Contemporary Dance
KIN 105-3 Fundamentals of Human Structure and Function
KIN 110-3 Human Nutrition: Current Issues
KIN 140-3 Contemporary Health Issues
KIN 142-3 Introduction to Kinesiology
KIN 143-3 Exercise Management
KIN 205-3 Introduction to Human Physiology
KIN 241-3 Sports Injuries — Prevention and Rehabilitation

All minor candidates must complete designated curriculum seminars and workshops during EDUC 402 and a specified teaching assignment in physical education during EDUC 405. Details of these requirements are available during EDUC 401. The minor in physical education may not be declared on a student’s program until all prerequisites, including a practicum placement in EDUC 405, are met.

**Upper Division Requirements**
Students must complete a minimum of 14 hours as specified below.

**EDUC 459-4 Instructional Activities in Physical Education**
**EDUC 479-4 Designs for Learning: Physical Education**
plus two of
EDUC 330-3 Movement Language Elements for Dance in Education
**EDUC 401-4 Education and Drama**
KIN 342-3 Active Health

Students can include only one Designs for Learning course chosen from the following.
EDUC 412-4 Designs for Learning: Secondary Language Arts
EDUC 414-4 Designs for Learning: Secondary Social Studies
EDUC 415-4 Designs for Learning: Secondary Mathematics
EDUC 416-4 Designs for Learning: Secondary Science
EDUC 430-4 Designs for Learning Dance
EDUC 472-4 Designs for Learning: Elementary Language Arts
EDUC 473-4 Designs for Learning: Reading
EDUC 474-4 Designs for Learning: Elementary Social Studies
EDUC 475-4 Designs for Learning: Elementary Mathematics
EDUC 476-4 Designs for Learning: Elementary Science
EDUC 477-4 Designs for Learning: Art
EDUC 478-4 Designs for Learning: Music
EDUC 480-4 Designs for Learning: French as a Second Language
EDUC 481-4 Designs for Learning: French Immersion and Programme-cadre de Français
EDUC 482-4 Designs for Learning: Information Technology
EDUC 485-8 Designs for Learning: Writing
Minor in Secondary Mathematics Education

This minor will be of interest to pre-service teachers considering a career in teaching secondary mathematics.

Admission Requirements

Applicants must have sufficient course work to teach Secondary Mathematics (usually the equivalent of a minor in Mathematics).

Upper Division Requirements

Students must complete a minimum of 15 credit hours as specified below.

EDUC 411-3 Investigations in Mathematics for Secondary Teachers
EDUC 415-4 Designs for Learning: Secondary Mathematics

plus one of the following electives. This list is composed of topics that are directly related to mathematics—technology, science, philosophy and music.

EDUC 358-3 Foundations of Educational Technology
EDUC 416-4 Designs for Learning: Secondary Science
EDUC 433-4 Philosophical Issues in Curriculum
EDUC 463-4 Multimedia for Curriculum Design
EDUC 469-4 Music Education as Thinking in Sound
EDUC 482-4 Designs for Learning: Information Technology

Students must take an additional 300 or 400 level course(s) in education to complete the total of at least 15 credit hours (excluding EDUC 475).

Certificate in Literacy Instruction

Contact the Undergraduate Advising Office, 8625 Education Building, 604.291.3488.

This certificate prepares students to teach literacy skills to adult learners. By combining courses from different disciplines with opportunities for guided practice, it provides historical and contextual perspectives on literacy, acquaints students with current field practices and develops practical skills.

Completion of the certificate is normally within five years of admission to the program.

Program Requirements

Students must complete 29 credit hours, of which 23 are in the following seven required courses.

EDUC 240-3 Social Issues in Education
EDUC 341-3 Literacy, Education and Culture
EDUC 342-3 Contemporary Approaches to Literacy Instruction
EDUC 343-5 Literacy Practicum
ENGL 210-3 Advanced University Writing
ENGL 103-3 Introduction to Drama
ENGL 104-3 Introduction to Prose Genres

In addition, students must complete at least an additional six credit hours in Faculty of Education or Faculty of Arts and Social Sciences courses designated below. Students must select courses that will further their own specific interests in literacy instruction and should be aware that some courses require the completion of prerequisites outside the certificate program.

Faculty of Education

EDUC 325-3 Assessment for Classroom Teaching
EDUC 422-4 Learning Disabilities
EDUC 441-4 Multicultural/Anti-Racist Education
EDUC 467-4 Curriculum and Instruction in Teaching English as a Second Language
EDUC 471-4 Curriculum Development: Theory and Practice

EDUC 472-4 Designs for Learning: Language Arts
EDUC 473-4 Designs for Learning: Reading

Faculty of Arts and Social Sciences

ENGL 370-4 Studies in Language
ENGL 371-4 Writing: Theory and Practice
HUM 320-4 The Humanities and Philosophy
HUM 321-4 The Humanities and Critical Thinking
LING 260-3 Language, Culture and Society
PHIL 001-3 Critical Thinking
PSYC 206-3 Introduction to Psychological Assessment
SA 304-3 Social Control
SA 333-4 Schooling and Society

Notes

- Credits applied to this certificate may not be applied to any other SFU certificate or diploma, but they may be applied toward major or minor program requirements or toward a bachelor's degree under regulations governing those programs.
- At least 15 of the 29 required credit hours must be completed at Simon Fraser University.
- Students must achieve a minimum 2.0 GPA, calculated on all Simon Fraser University courses applied to the program, with the exception that duplicate courses are counted only once.
- The certificate program cannot be used in place of the Faculty of Education's professional development program or equivalent as a route to a British Columbia teaching certificate.

Post Baccalaureate Diploma in Teaching English as a Second Language

See “Post Baccalaureate Diploma in Teaching English as a Second Language” on page 183.

Post Baccalaureate Diploma in French and Education

See “Post Baccalaureate Diploma in French and Education” on page 170.

Post Baccalaureate Diploma in Special Education

This program offers educators and healthcare professionals who work with children and adults with disabilities the opportunity to consolidate course work in the area of lifespan development and special education in a way that facilitates a common ground for discussion. Conceptually, the course work emphasizes core knowledge and skills about lifespan development, individual differences, and assessment and support. An emphasis is placed on understanding how challenges presented to families of children with disabilities change over time as children mature and as they make transitions across home, school and community contexts.

Required Courses (22 credit hours)

EDUC 315-3 Individual and Developmental Differences in Children’s Language Acquisition
EDUC 422-4 Learning Disabilities
EDUC 426-4 Teaching Children and Youth with Special Needs
EDUC 464-4 Early Childhood Education
EDUC 322-3 Social Lives of School Children
GERO 302-3 Health Promotion and Aging
PSYC 361-3 Social Cognition
EDUC 424-4 Learning Disabilities Laboratory
EDUC 427-4 Seminar in Teaching Children with High Incidence

Optional Courses (8 credit hours)

EDUC 333-3 Introduction to Counselling Theories
EDUC 351-3 Teaching the Older Adult
EDUC 382-4 Diversity in Education: Theories, Policies, Practices
EDUC 423-4 Helping Relationships
EDUC 428-4 Nature and Nurture of Gifted Students
EDUC 433-4 Philosophical Issues in Education
EDUC 468-4 Cognition and Language in ESL Instruction
GERO 300-3 Introduction to Gerontology
GERO 401-3 Aging and the Built Environment
PSYC 354-3 Development of Children's Thinking
PSYC 355-3 Adolescent Development
PSYC 356-3 Developmental Psychopathology

EDUC 330-3 Movement Elements for Dance in Education
EDUC 341-3 Literacy, Education and Culture
EDUC 387-4 Teaching Children from Minority Language Backgrounds in Elementary Classrooms
EDUC 457-4 Drama and Education
EDUC 459-4 Instructional Activities in Physical Education
EDUC 467-4 Curriculum and Instruction in Teaching English as a Second Language
EDUC 471-4 Curriculum Development: Theory and Practice
EDUC 473-4 Designs for Learning: Reading
EDUC 475-4 Designs for Learning: Elementary Mathematics
EDUC 477-4 Designs for Learning: Art
EDUC 478-4 Designs for Learning: Music

plus additional upper division credits in related topic areas to bring the total to 30 upper division credits.

Simon Fraser University 2005 - 2006
Co-operative Education

This program is for qualified students who wish to combine work experience with academic studies.

Please note that this program is not part of the Professional Development Program and will not provide the training required for a teaching certificate from the BC College of Teachers.

For admission to co-operative education, students must have completed 30 credit hours with a CGPA of 3.0 and have completed EDUC 100-3 Selected Questions and Issues in Education and two of EDUC 220-3 Introduction to Educational Psychology EDUC 230-3 Introduction to Philosophy of Education EDUC 240-3 Social Issues in Education EDUC 280-3 Learning and Teaching Through Technology

Transfer students must complete at least 15 credit hours at Simon Fraser University before applying.

Arrangements for work semesters are made through the co-op co-ordinator, who should be consulted at least one semester in advance.

For further details, see “Co-operative Education” on page 240.

Field Programs

8550 Education Building, 604.291.5830 Tel, 604.291.5882 Fax, www.educ.sfu.ca/fp

Director
A.M. MacKinnon, BSc, BEd, MSc (Calg), EdD (Br Col)

Field Programs enhances teacher continuing education through collaboration with other educational agencies in British Columbia. All courses and programs are located at sites other than the Burnaby Mountain campus or Harbour Centre site.

Courses offered through Field Programs (designated EDPR) are shown on page 376. Field Programs also offers a graduate diploma in advanced professional studies in education. Field Programs works with associations to co-develop ongoing professional in-service opportunities for teachers, including annual conferences and theme-specific non-credit in-service series.

Programs:

Professional Programs

8531 Education Building, 604.291.4326 Tel, 604.291.5691 Fax, www.educ.sfu.ca/pdp/admissions

Director
M. Zola BA (Brist), MEd (Leeds)

Admissions Advisor
Ms. D. Kelso BA (S Fraser), 8624 Education Building, 604.291.3620/3149

External Programs Admissions Advisor
Ms. J. Bicknell BA (Car), 8625 Education Building, 604.291.3798/3488

Professional Development Program (PDP)

Applicants must be attending SFU or be admissible. See “Admission and Readmission” on page 33.

- All candidates are required to submit the Professional Development Program application form to the PDP office in the Faculty of Education.
- Candidates who have not attended SFU previously, or who have not attended in any of the three semesters prior to intended registration, must apply for admission or readmission. See “Admission and Readmission” on page 33.
- All applications must be submitted to the PDP admissions office by January 16 for the fall semester and May 15 for the spring semester.
- All applicants pay the PDP application fee directly to the PDP admissions office, Faculty of Education.

Elementary Applicants

Elementary applicants must, by the date of application, have completed a minimum of 76 credit hours of courses acceptable for credit at SFU (should include 16 credit hours of upper division course work) including the following prerequisite courses.
- six credit hours in English (a maximum of three hours of English composition may be included)
- one course (three credit hours) in each of Canadian history, Canadian geography, and laboratory science
- MATH 190
- elementary applicants should have education, fine and performing arts and kinesiology courses

Secondary Applicants

Applicants who plan to teach at the secondary level must fulfill the requirements of a teachable major subject or two teachable minor subjects prior to commencing PDP.

Teachable Majors or Minors

- biology
- Canadian studies (minor only)*
- chemistry
- computing science (minor only)*
- dance (FPA) (minor only)*
- earth sciences
- English
- English and French literatures (joint major)*
- First Nations (minor only)*
- French
- French, history and politics (joint major)*
- geography*
- history
- humanities (minor only)*
- kinesiology
- mathematics
- music (FPA)*
- physics
- social studies*
- theatre (FPA) (minor only)*
- visual art (FPA)*

*see requirements sheet in the Faculty of Education
Students planning to teach at the secondary level must complete degree requirements prior to commencing PDP, except BEd candidates who cannot complete their degree until they have successfully completed PDP. These BEd candidates must complete the requirements of one teachable major or two teachable minors prior to commencing PDP. Students from other institutions may apply prior to degree completion, but must have completed the degree one full semester prior to commencing PDP.

Secondary applicants must complete six English credit hours (a maximum of three hours of English composition may be included) one full semester prior to starting PDP.

Secondary applicants are encouraged to have education courses.

All Applicants

- A minimum of two reference letters, and no more than three (one should describe the candidate’s experience in teaching/instructional related functions) must be submitted.
- A written analysis of a teaching situation (described further in the PDP application package) is required.
- A resume must also be submitted by all applicants (see PDP application package for information).
- Before program admission, applicants must demonstrate competence in written and oral English (and written and oral French for French immersion and French as a second language programs).

- Students may be asked to submit evidence of good health before being considered for admission.
- Students may be required to have an interview before being considered for program admission.
- If the number of PDP applicants exceeds facilities and staffing capabilities, the admissions committee will select the best qualified candidates.
- Admission selection is generally given to students whose applications show experience with and commitment to community service that may include teaching or other helping roles.
- Given the number of well qualified applicants to the professional development program each year, it is most improbable that candidates who have been unsuccessful in four previous competitions will be considered favorably in any subsequent competition. Those who have been unsuccessful in gaining program entry on at least four occasions are discouraged from further application.

Program Description

The professional development program is three semesters in duration. Professional studies and activities are arranged in the following sequence.

First Semester of Professional Development Program

EDUC 401-8 Introduction to Classroom Teaching* EDUC 402-7 Studies of Educational Theory and Practice*

*not offered in summer semester

EDUC 401 and 402 are offered as an integrated program, combining theory and practice in both on campus seminars and in-school practice in the first semester of PDP. This is accomplished by alternating blocks of classroom teaching with workshops and instruction on campus.

During EDUC 401, students are assigned to a teacher (school associate) identified by school authorities and supervised by a faculty associate appointed by the University. Students observe, teach and participate in school routines and programs.

During EDUC 402, students participate in the study of teaching, learning to make meaning of the complex world of educational practice, informed by extensive study of pedagogical literature.

French Education

In the fall semester only. French immersion, programme cadre and basic French for kindergarten to grade 12 are normally available. The majority of the program in immersion and programme cadre is in French.

Special Focus Modules

Special focus modules are offered during fall and spring semesters. Entry may be competitive.

EDUC 405-15 Teaching Semester (not offered in summer semester) Prerequisites: EDUC 401 and 402.

A semester of classroom experience supervised by University appointed faculty associates. The school placement is appropriate to the educational level and subject specialties in which the student expects to obtain certification. Students assume a large measure of responsibility and participate in a wide range of teaching and supervisory activities.

School placements in EDUC 405-15 are made in school districts throughout the Lower Mainland.

Grading in EDUC 401, 402 and 405 is on a pass/withdrawal basis.

EDUC 404-0 Course Work Semester Prerequisites: EDUC 401 and 402.

Course programming in this semester is in consultation with undergraduate programs, faculty members, and the student’s faculty associate to ensure that professional, academic and certification
requirements are satisfied to satisfy the educational requirements of designated PDP modules. Students undertake 15 credit hours of studies in education.

Note: Students completing degrees from the Faculties of Applied Sciences, Arts, Business, Administration, or Education may apply credit for EDUC 404 towards that degree.

To be recommended for certification, the student must achieve in EDUC 404 a GPA at least equivalent to that required for a degree in the University.

General Regulations

Students must complete normal SFU registration procedures before commencing studies in any semester of the professional development program.

Students must meet program goals, as outlined in the Professional Development Handbook.

• This program is normally completed in three consecutive semesters. However, those with valid reasons may be given permission by the professional programs director to interrupt their program participation. A formal request must be submitted in writing to the director.

• A program interruption requested by a student may normally last no longer than two years.

• Students who indicate their intention to undertake a given semester of the professional development program and who do not honor this commitment are considered to have withdrawn from the program. Permission to re-enter is not given automatically.

Readmission

Students who withdraw from EDUC 401/402 must re-apply to the admissions committee.

Students may apply for EDUC 405 re-entry by completing a re-entry application and submitting it and supporting documents to the professional programs director. Deadlines for re-application: April 15 for fall semester; October 15 for spring semester.

Permission to re-enter the program will be granted if

• the student has satisfactorily met the conditions for re-entry established when he/she interrupted or withdrew from the program

• space is available in the semester for which the student applies

Note: After being withdrawn from EDUC 405 for a second time, a student may not re-enter the program unless by appeal.

Students who re-enter PDP should apply for re-entry within two years of withdrawal. Students who do not re-enter within the specified time may be required to complete additional course work before readmission.

Students who wish to re-enter EDUC 404 must apply to re-enter the program not later than six weeks prior to the beginning of the semester. An application for re-entry to PDP must be completed.

Recommending for Certification

The academic and professional records of all students who have completed the three professional development program semesters will be subject to review by the faculty before a recommendation for certification is forwarded to the BC College of Teachers.

PDP students may be required to complete a criminal record check prior to or during PDP.

Special Professional Program Opportunities

EDUC 405-15 Course Challenge

Students with a minimum of one year of full-time teaching experience in Canada or in a school setting where English or French was the normal language of instruction, and where the curriculum was reasonably similar to a Canadian public school curriculum, may challenge EDUC 405 subject to the following.

• Course challenge applicants will be considered according to generally established requirements and procedures. “Registration/Enrolment” on page 45

• Normally, students can register in course challenge for EDUC 405 only while registered in EDUC 401/402. Additional full fees will be levied for challenging EDUC 405 regardless of whether the challenge is successful.

• Course challenge credit for EDUC 405 will not be granted before successful completion of EDUC 401/402.

• Application forms are available from the director of professional programs and must be submitted by:
  • May 15 for the fall semester; September 15 for the spring semester.

External Professional Development Programs

There are two external professional development programs that operate under the auspices of a consortia of local community colleges, northern school districts, and Simon Fraser University. The consortia invite applicants with strong local northern connections. (Deadlines and admission procedures are different from the Lower Mainland application.)

AHCOTE – Alaska Highway Consortium on Teacher Education (Fort St. John, Dawson Creek) (subject to funding) Telephone 1.250.785.6981 local 51 for information.

NWTEC – Northwest Teacher Education Consortium (Terrace, Kitimat, Prince Rupert, Bulkley Valley [subject to funding]). For information, telephone 604.291.3488 or 250.635.6511 (local 5378).

HEART (Helping Expand Access for Returning Teachers)

EDUC 406-12 (HEART) Supervised Observation and Teaching

This EDUC 406 option within professional programs is a supervised orientation/observation and teaching sequence of about 12 weeks in a BC public school. This practicum offers educators, who do not meet BC certification requirements, an opportunity to familiarize themselves with the British Columbia school system and to update teaching skills to acquire certification.

EDUC 406 is normally offered in the fall and spring semesters only and space is limited.

Grading is on a pass/withdraw basis. Applicants to HEART must be attending SFU or be admitted to the University. See “Admission and Readmission” on page 33. Candidates who have not attended SFU previously, or who have not attended in any of three semesters prior to intended registration in EDUC 406, must submit the application for undergraduate admission form to Student Services.

Students intending to complete SFU courses in preparation for application to EDUC 406 should contact the faculty (8624 Education Building, telephone 604.291.3798 or 604.291.3488).

Application forms for the HEART program should be received by: April 15 for fall semester; September 15 for spring semester. An interview is normally required.

Certification

Simon Fraser University does not confer teaching certificates. The BC College of Teachers (BCCT) is the only body in BC authorized to grant such certificates. Under July 1, 1974 regulations, qualified students from provincial universities, upon making application and submitting birth or baptismal certificate as proof of name and age, will receive a non-expiring teaching credential.

Note: Persons convicted of a criminal offence and considering a teaching career should write to the BCCT for clarification of their status before undertaking a teacher education program.

Types of Certificates

There are two types of teaching certificates. The standard certificate is awarded after successful completion of an acceptable four-year program. Included in the acceptable four-year program are both academic and professional studies. The professional certificate is awarded after successful completion of an acceptable five-year program of professional and academic studies culminating in a professional development program.

The standard certificate requires a minimum of 76 credit hours (five semesters) in applied sciences, arts, business administration, science, or education, plus the professional development program (three semesters). The standard certificate (a minimum of 120 credit hours of academic and professional credit) will normally qualify for Teacher Qualification Service category four.

Notes Regarding Requirements for Teaching Certificates

The following are required for teacher certification.

• a minimum of six Department of English credit hours (a maximum of three hours of English composition may be included)

• effective September 1, 2000, students must meet the BC College of Teachers acceptable degree policy restricting the academic preparation acceptable for qualifying for certification by the Faculty of Education for further information.

Applying for a Certificate

The Faculty of Education sends the BCCT a list of students who have completed teacher certification requirements. Each student is given or mailed an application for teacher’s certificate of qualification form. Students must forward the completed form to the BCCT for formal evaluation for certification.

Applications for upgrading of certificate (e.g., when a teacher wishes to convert a standard certificate to a professional certificate) must also be made to the BCCT.

Note: There is a delay between the completion of the professional development program and the forwarding to the BCCT of documented recommendation for a teaching certificate.

Applicants for certification upon degree completion should note the University regulations in this Calendar concerning conditions in a degree submission of graduation applications. Exceptions cannot be made.

Teacher Qualification Service

This service is sponsored jointly by the BC Teachers’ Federation and the BC School Trustee’s Association and is an advisory service to teachers and school boards in evaluating the academic and professional preparation of teachers. At present, the service assists teachers who are newly certified, new to a school district, or who are upgrading their certificates. Evaluation forms are available from the Teacher Qualification Service, 106-1525 West 8th Avenue, Vancouver, BC, V6T 1T5, or from the PDP admissions office, Faculty of Education, Simon Fraser University.
Faculty of Health Sciences

2812 West Mall Centre, 604.294.4821 Tel, fhsugrad@sfu.ca

Undergraduate Degrees To Be Offered
Bachelor of Arts
Bachelor of Arts (Honors)

Undergraduate Program Planned
2812 West Mall Centre, 604.294.4821 Tel, fhsugrad@sfu.ca

Introduction
The Faculty of Health Sciences accepts its first students in September 2005, with the admission of a cohort of students to the MSc Population and Public Health.

New faculty members have been appointed with experience in multidisciplinary approaches to health using a wide range of methodologies. Their expertise provides links to current research and teaching programs by complementing existing faculty with health interests in other departments.

Research and teaching programs at the graduate and undergraduate levels share the defining features of the Faculty of Health Sciences, integrating social and natural sciences approaches to determinants of individual and population health, health promotion and risk mitigation, and health informatics and technologies. This integration combines a broad spectrum of research approaches, methods of inquiry, levels of analysis, and research perspectives.

Interdepartmental graduate degrees are available by special arrangements. See “1.3.5 Admission Under Special Arrangements” on page 246.

B. McNeney, Statistics and Actuarial Sciences
N. Olewiler, Economics
A. Parameswaram, Engineering Science
W. Parkhouse, Kinesiology
C. Patton, Sociology and Anthropology, Women’s Studies
S. Pigg, Sociology and Anthropology
M. Pinto, Vice President Research
A. Rawicz, Engineering Science
S. Robinovitch, Kinesiology
N. Schuurman, Geography
G. Tibbits, Kinesiology
D. Weeks, Chair, Psychology
A. Wister, Director, Gerontology

Faculty Members

Undergraduate Chair
N.H. Haunerland MSc, PhD (Mün)

Undergraduate Advisors
C.B. Dean BA, BSc (Sask), MMath, PhD (Wat)
M. Hayes BA, MSc, PhD (McM)

Bachelor’s Degree
It is anticipated that a BA program in Health will become available during the period spanned by this Calendar. Students wishing to apply for admission to this degree program should check the web site http://www.fhs.sfu.ca for up to date information. For admission in the Fall of 2006, we recommend applying before the end of April 2006.

It is proposed that the first two years of the bachelor degree will consist mainly of courses in other faculties that lay a foundation for the upper level courses in Health Sciences. The foundation areas in Health Sciences are:

- determinants of health and health promotion
- epidemiology and population health
- foundations in human biology
- foundations in sociocultural aspects of health

Co-operative Education Program
It is anticipated that the degree will be available by co-operative education once the program is established.

B. McNeney, Statistics and Actuarial Sciences
N. Olewiler, Economics
A. Parameswaram, Engineering Science
W. Parkhouse, Kinesiology
C. Patton, Sociology and Anthropology, Women’s Studies
S. Pigg, Sociology and Anthropology
M. Pinto, Vice President Research
A. Rawicz, Engineering Science
S. Robinovitch, Kinesiology
N. Schuurman, Geography
G. Tibbits, Kinesiology
D. Weeks, Chair, Psychology
A. Wister, Director, Gerontology

Faculty Members

Associate Members
B. Brandhorst, Chair, Molecular Biology and Biochemistry
F. Brinkman, Molecular Biology and Biochemistry
D. Cohn, Political Science
R. Corrado, Criminology
D. Culhane, Sociology and Anthropology
A. Davison, Kinesiology
M. Ester, Computing Science
D. Finegood, Kinesiology
J. Graham, Statistics and Actuarial Sciences
G. Gutman, Gerontology
N. Haunerland, Biological Sciences
M. Howlett, Political Science
J. Hu, Statistics and Actuarial Sciences
G. Iarocci, Psychology
D. Kaufman, Education
S. Lear, Kinesiology
L. Lemare, Education
R. Lockhart, Statistics and Actuarial Sciences
C. Lowenberger, Biological Sciences
C. MacKenzie, Kinesiology
S. MacLean, Political Science
For students enrolled at the University before fall 1991

- a graduation GPA of 2.00 calculated on the required 120 credit hours, or on the last 60 credit hours taken including the 44 credit hours of upper division credit
- a 2.00 GPA in the required upper division courses

Honors Program
This program provides in-depth study in a single field and requires the student to concentrate his/her studies in the fifth to eighth levels in the chosen field. It is recommended for those intending to proceed to advanced degrees provided they meet the entrance requirements and maintain the required standing. Students applying for honors program admission will normally have a cumulative grade point average of 3.00 (B standing) and are expected to maintain this standard to continue in the honors program.

Requirements for Honors and Honors First Class
Students must complete 132 credit hours which include the following:

- a minimum of 48 hours of upper division credit in one subject area
- additional credit hours of upper division credit bringing the total to a minimum of 60 credit hours of upper division credit
- a minimum of 12 credit hours in subjects taken outside the Faculty of Science (excluding EDUC 401 to 407) including a minimum of six credit hours taken in the Faculty of Arts and Social Sciences
- a cumulative grade point average (CGPA) minimum of 3.00 must be obtained on the overall coursework requirements for the honors program, as well as a minimum program grade point average of 3.00 in the upper division courses required in the honors program. (See “Grade Point Averages Needed for Graduation” on page 50 of the General Regulations section regarding graduation GPA requirements on all coursework taken at Simon Fraser University.) Honors students who obtain both a program and a graduation minimum GPA of 3.5 are eligible for the designation ‘first class.’ Students must also complete additional requirements as specified by the honors program and in the General Information section (see “General Information” on page 29).

Program Guidelines
- At the outset, students are requested to indicate their intended major so as to facilitate counselling. Students who have not determined a major or intend to transfer to a professional school (i.e., medicine, dentistry, etc.) should seek advice from the Academic Resource Office or the Office of the Dean of Science.
- Declaration of major or honors must be officially accepted by that department, prior to the completion of 60 credit hours.
- New students intending to take more than 15 credit hours in their first semester of studies should seek advice from the Academic Resource Office, the Office of the Dean of Science or their major department.
- Normally, the graduation requirements, as published in the Calendar at the time of formal declaration of major or honors, will apply.
- In any combination of science programs (honors/minor, major/major, major/minor, minor/minor) the student may not use the same upper division course for formal credits towards both programs. One course might fulfill content requirements of two related areas, but in such a case additional replacement credits in upper division work satisfactory to one of the departments or program committees must be taken in one of the subjects to fulfill overall credit for the two programs involved.
- Programs totalling more than 18 hours of credit per semester require the approval of the dean.

Minor Program
Consult advisors in appropriate departments when deciding on course selection. Suggested programs and prerequisites are given in each department’s Calendar entry. An average grade of at least 2.00 is required in those upper division courses used to satisfy the requirements for a minor.

General Science Program
This program, consisting of 120 credit hours, provides a broad general education in several fields with some specialization in at least two fields. It requires two minors, one of which must be chosen from within the Faculty of Science. The groupings of courses from which the two minors can be chosen are given under the General Science Program section (page 223), along with the general course requirements for this degree. It should be noted that all lower division requirements for the two chosen minors must also be completed.

Co-operative Education Programs
These programs are available in all programs including biological sciences, chemistry, earth sciences, environmental science, geography, mathematics, molecular biology and biochemistry, physics, and actuarial science. Details are given in the departmental sections and in “Co-operative Education” on page 240. Students are encouraged to take the co-op option.

Withdrawal of Program Approval
A student whose progress, in the judgment of the department, is below the standard for graduation from a program may be refused entry to, or required to withdraw from, that program in the department.

Transfer Credit and Bachelor of Science Degrees for Students Who Successfully Complete First Year Medical Science Professional Training
Students who complete at least 90 credit hours in a science degree program and are accepted into an accredited professional program in medicine, dentistry, optometry or veterinary medicine are eligible for an SFU bachelor of science degree after successful completion of the first year of professional study. To be accepted, only courses taken in the professional program need not duplicate courses already taken at SFU and must be accepted for transfer credit in a major or honors program. Candidates must apply for transfer credit and a bachelor’s degree through SFU’s Office of the Registrar. Since official transcripts of the work completed in the first year of the professional program

For students enrolled at the University beginning fall 1991 or later

- upper division grade point average (GPA) and cumulative grade point average (CGPA) as specified in the General Information section of this Calendar or
are required for transfer credit. Application for graduation should be delayed until the summer semester following the completion of requirements.

Faculty of Dentistry at the University of British Columbia requires the following courses which are prerequisites for applying to enter the first year of dentistry (DMD). ENGL 199 and one of 101 or 102 or 103 or 104 or 105 MBB 222 and 321, or 222 and 322 BISC 101 and 102 CHEM 121, 122, 126, 281, 282, 286 MATH 154 and 155, or 157 and 158, or 151 and 152, or 161 and 162 PHYS (101, 102, 130) or (120, 121, 131)

Additional courses are required to complete six semesters (90 UBC credit hours). These should be chosen in accordance with a specific SFU degree program but students are advised to select some courses from disciplines in the humanities and social sciences.

Contact address
For student admissions: Faculty of Dentistry – Student Services, University of British Columbia, 278 – 2199 Westbrook Mall, Vancouver, BC, V6T 1Z3. Telephone 604.822.8063, Fax 604.822-8279, faxdents@interchange.ubc.ca, www.dentistry.ubc.ca

Faculty of Forestry at the University of BC
The Faculty of Forestry offers four degree programs in forest resources management, forest operations, forest science, natural resources conservation, and wood products processing. The curricula allow two admission pathways: one directly from high school; the other follows a year of science at the University of BC or its equivalent at another post-secondary institution. If first year that science is taken at SFU, the following courses are suggested.

ENGL one of 101 or 102 or 103 or 105 or 199 BISC 101 and 102 CHEM 121 or PHYS 100 or 101 MATH 154 and 155, or 157 and 158, or 151 and 152, or 161 and 162 ECON 103 and 105 STAT 270

Students who apply after one year of science need three or four years after completion of the first year of science to fulfill the forestry degree requirements, depending on the forestry program chosen.

Contact address
Student Recruitment, Faculty of Forestry, University of British Columbia, Forest Science Centre, FSC 2612, 2424 Main Mall, Vancouver, BC, V6T-1Z4 Telephone 604.827.5195, frstinfo@interchange.ubc.ca, www.forestry.ubc.ca.

Faculty of Medicine at the University of British Columbia requires the following courses which are prerequisites for applying to enter the first year of medicine.

English: any two of ENGL 101, 102, 103, 104, 199 (199 recommended)
Chemistry: all of CHEM 121, 122, 126, 281, 282, 286 Biochemistry: both MBB 222 and 321 (MBB 221 is a prerequisite for 222)

Contact address
For the admissions office: Faculty of Medicine, University of British Columbia, 317 – 2194 Health Sciences Mall, Vancouver, BC, V6T 1Z3. Telephone 604.822.4482, admissions.md@ubc.ca, www.med.ubc.ca

Faculty of Pharmaceutical Sciences at the University of British Columbia requires the following courses which are prerequisites for applying to enter the first year of a four year program of pharmacy.

BISC 101 and 102 CHEM 121 / 122 / 126 ENGL any two of ENGL 199, 101, 102, 103, 104 MATH 151 / 152 (or 154 / 155) PHYS 101 / 102 / 130 (or 120 / 121 / 131)

Refer to a current University of British Columbia Calendar for specific information. All applicants must submit additional supplemental admission requirements. Students should consult the Faculty of Pharmaceutical Sciences at the University of BC.

Contact address

Western College of Veterinary Medicine at the University of Saskatchewan, Saskatoon, requires the following courses as prerequisites for applying to enter this program.

ENGL any two of 101, 102, 103 or 104 MBB 221 and 222 BISC 101, 102, 201, 303

Contact address
Admission Office, Western College of Veterinary Medicine, University of Saskatchewan, 52 Campus Drive, Saskatoon, Saskatchewan, S7N 5B4

General Note
All course requirements should be completed by the end of the spring semester preceding the proposed date of entry to a professional school.
The Western College of Veterinary Medicine requires a minimum 70% cumulative average for veterinary program admission. Grades are converted to a common scale for comparative purposes and this converted average will be used.
The college has recently, with Saskatchewan Human Rights Commission approval, introduced an Educational Equity Program for Aboriginal students. A defined number of seats have been allocated for self-identified Aboriginal descent applicants who will be ranked among themselves and not against the general applicant pool. Proof of Aboriginal ancestry is required and must be provided at the time of application. For the purpose of admission the accepted documents for Aboriginal ancestry proof are in the University of Saskatchewan Calendar.
Undergraduate

Minimum Grade Requirement
A grade of C- or better is required on all prerequisite BISC and MBB courses.

Prerequisites
Entry into courses numbered 300 and above normally requires completion of the lower division core in Biological Sciences. Prerequisites for any course may be waived with the approval of the department.

Major Program
Basic credit hour requirements underlying all areas of emphasis follow.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BISC/MBB (lower division)</td>
<td>20 credit hours</td>
</tr>
<tr>
<td>non BISC/MBB (lower division)</td>
<td>27 credit hours</td>
</tr>
<tr>
<td>BISC/MBB (upper division)</td>
<td>36 credit hours</td>
</tr>
<tr>
<td>*electives</td>
<td>37 credit hours</td>
</tr>
<tr>
<td>total (minimum)</td>
<td>120 credit hours</td>
</tr>
</tbody>
</table>

*Electives must include a minimum of 12 credit hours in subjects taken outside the Faculty of Science (excluding EDUC 401, 402, 405, and 406). A minimum of six of these must be from the Faculty of Arts and Social Sciences. Additional upper division credit must be included in the program to complete the BSC requirement of a minimum of 44 credit hours of upper division credit.

Six credit hours of English should be completed by all major/honor students in biological sciences.

Lower Division Core
Normally all biological sciences majors must complete the following, or equivalents, within the first 60 hours (four semesters) of their programs.

<table>
<thead>
<tr>
<th>Courses in the Faculty of Science</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>all of BISC 101-4 Introduction to Biology</td>
<td>4 credit hours</td>
</tr>
<tr>
<td>plus one course from MBB 221-3 Cell Biology and Biochemistry</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>plus three additional upper division courses</td>
<td>9 credit hours</td>
</tr>
</tbody>
</table>

Courses of the Department of Biological Sciences

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BISC 101-4 Introduction to Biology</td>
<td>4 credit hours</td>
</tr>
<tr>
<td>BISC 102-4 Introduction to Biology</td>
<td>4 credit hours</td>
</tr>
<tr>
<td>BISC 202-3 Genetics</td>
<td>4 credit hours</td>
</tr>
<tr>
<td>BISC 204-3 Introduction to Ecology</td>
<td>4 credit hours</td>
</tr>
<tr>
<td>CHEM 121-4 General Chemistry and Laboratory I</td>
<td>4 credit hours</td>
</tr>
<tr>
<td>CHEM 122-4 General Chemistry II</td>
<td>4 credit hours</td>
</tr>
<tr>
<td>CHEM 281-4 Organic Chemistry and Laboratory I</td>
<td>4 credit hours</td>
</tr>
<tr>
<td>CHEM 282-4 Organic Chemistry II</td>
<td>4 credit hours</td>
</tr>
<tr>
<td>MBB 221-3 Cell Biology and Biochemistry</td>
<td>3 credit hours</td>
</tr>
<tr>
<td>MBB 222-3 Molecular Biology and Biochemistry</td>
<td>3 credit hours</td>
</tr>
</tbody>
</table>

Academic Advising
Biological sciences majors should contact an advisor before registration. Those in a pre-professional program (e.g. pre-medicine, pre-veterinary medicine, pre-dentistry) should advise the department and an advisor who is familiar with the professional program requirements will be assigned.

Field Schools
International field schools are offered throughout the year in a range of areas, e.g. African studies, tropical biology or marine ecology. Students interested in taking field courses at an outside accredited institution for possible transfer credits to SFU should consult with the biological sciences advisor.
plus three elective courses (9 credit hours) chosen from any upper division undergraduate BISC or MASC course or special topics courses appropriate for the selected stream, or alternative courses (e.g. MBB, KIN) as approved by the program advisor. Students must complete a total of five lab courses (which may include either BISC 498 or 499) among their upper division courses.

**Ecology and Evolution**

Students must complete one physiology course from BISC 305-3 Animal Physiology BISC 366-3 Plant Physiology plus one organism lab course from BISC 303-3 Microbiology BISC 306-3 Invertebrate Biology BISC 316-3 Vertebrate Biology BISC 326-3 Biology of Algae and Fungi BISC 337-3 Plant Biology plus five stream specific courses from the following BISC 304-3 Animal Physiology* BISC 310-3 Natural History of British Columbia BISC 316-3 Vertebrate Biology BISC 317-3 Insect Biology BISC 404-3 Plant Ecology* BISC 406-3 Marine Biology and Oceanography BISC 407-3 Population Dynamics BISC 410-3 Behavioral Ecology BISC 411-3 Behavioral Ecology Laboratory BISC 414-3 Limnology BISC 419-3 Wildlife Biology BISC 422-3 Population Genetics BISC 430-3 Plant Pathology BISC 434-3 Paleocology and Palynology BISC 435-3 Introduction to Pest Management BISC 440-3 Biodiversity BISC 441-3 Evolution of Health and Disease BISC 498-3 Undergraduate Research I BISC 499-3 Undergraduate Research II *recommended

plus three elective courses (9 credit hours) chosen from any upper division undergraduate BISC or MASC or special topics courses appropriate for the selected stream, or alternative courses (e.g. MBB, KIN) as approved by the program advisor. Students must complete a total of five lab courses (which may include either BISC 498 or 499) among their upper division courses.

**Open Stream**

Students must complete one physiology course from BISC 305-3 Animal Physiology BISC 366-3 Plant Physiology plus one organism lab course from BISC 303-3 Microbiology BISC 306-3 Invertebrate Biology BISC 316-3 Vertebrate Biology BISC 326-3 Biology of Algae and Fungi BISC 337-3 Plant Biology plus eight courses (24 credit hours) chosen from any upper division undergraduate BISC or MASC or special topics courses (e.g. MBB, KIN) as approved by the program advisor.

Students must complete a total of five lab courses (which may include either BISC 498 or 499) among their upper division courses.

**Typical Lower Division Core Program**

Although there are many variations, the following is a typical program for the first four semesters.

**Semester 1**

BISC 102-4 Introduction to Biology CHEM 121-4 General Chemistry and Laboratory I MATH 154-3 Calculus I for the Biological Sciences PHYS 101-3 General Physics I

**Semester 2**

BISC 101-4 Introduction to Biology CHEM 122-2 General Chemistry II CHEM 281-4 Organic Chemistry I MATH 152-2 Calculus II for the Biological Sciences

**Semester 3**

CHEM 282-2 Organic Chemistry II MBB 221-3 Cell Biology and Biochemistry PHYS 102-3 General Physics II Elective and one of BISC 202-3 Genetics BISC 204-3 Introduction to Ecology

**Semester 4**

MBB 222-3 Molecular Biology and Biochemistry STAT 201-3 Statistics for the Life Sciences (or 102) Electives and one of BISC 202-3 Genetics BISC 204-3 Introduction to Ecology

**Honors Program**

Entry into the honors program requires a CGPA of 3.0 or higher (B standing), and permission of the department. This is for biology students pursuing an advanced degree. It requires a minimum of 60 upper division biological sciences credit hours, or related subjects, which is selected for each student in consultation with appropriate advisors, in relation to career goals.

Students must have completed 30 credit hours at SFU in a biological sciences major program. Applications received after more than 90 credit hours have been completed will not normally be considered.

Honors students must also satisfy the following additional requirements:

- maintenance of a minimum of 3.00 CGPA
- completion of 60 hours of upper division biological sciences or related subjects, which will include the core courses required for the major plus BISC 490, 491 and 492, these latter to constitute the honors thesis, and
- completion of appropriate electives totalling 132 credit hours, including at least 12 from courses outside the Faculty of Science (including a minimum of six credit hours from the Faculty of Arts and Social Sciences and excluding EDUC 401, 402, 405, 406).

**Minor Program**

Students must complete all of BISC 101-4 Introduction to Biology BISC 102-4 Introduction to Biology at least two of BISC 204-3 Introduction to Ecology MBB 221-3 Cell Biology and Biochemistry MBB 222-3 Molecular Biology and Biochemistry plus any 15 upper division biological sciences credit hours, or closely related subject areas (including MASC courses), as approved by the department.

**Co-operative Education Program**

Majors and honors students may apply for co-op education. It includes four work semesters during the academic program. See www.sfu.ca/coop/science or contact the science co-op co-ordinators in room B101 South Science Building, 604.291.5934.

**Environmental Toxicology Minor Program**

This program gives undergraduates working towards a science degree a thorough overview of environmental toxicology. Consequently, students will be better qualified and eligible for employment with various industrial and governmental agencies engaged in environmental monitoring and research.

**Lower Division Requirements**

The following lower division courses are required. Most students pursuing science degree programs will already have credit for most of these courses.

- all of BISC 101-4 Introduction to Biology BISC 102-4 Introduction to Biology CHEM 121-4 General Chemistry and Laboratory I CHEM 122-2 General Chemistry II CHEM 126-2 General Chemistry Laboratory II CHEM 281-4 Organic Chemistry I CHEM 282-2 Organic Chemistry II CHEM 286-2 Organic Chemistry Laboratory II MBB 221-3 Cellular Biology and Biochemistry STAT 201-3 Statistics for the Life Sciences and one of BISC 204-3 Introduction to Ecology EVSC 200-3 Introduction to Environmental Science and one of MATH 151-3 Calculus I MATH 154-3 Calculus I for the Biological Sciences and one of MATH 152-3 Calculus II MATH 155-3 Calculus II for the Biological Sciences and one of PHYS 101-3 General Physics I PHYS 120-3 Modern Physics and Mechanics and one of PHYS 102-3 General Physics II PHYS 121-3 Optics, Electricity and Magnetism

**Upper Division Requirements**

- BISC 312-3 Environmental Toxicology I
- BISC 313-3 Environmental Toxicology II
- BISC 432-3 Chemical Pesticides and the Environment
- plus two of BISC 445-3 Environmental Physiology of Animals (prerequisite BISC 305)
- CHEM 371-3 Chemistry of the Aqueous Environment (prerequisites CHEM 281 [or 150] and 360 [or 261])
- KIN 431-3 Environmental Carcinogenesis and their prerequisites as noted in the “Actuarial Mathematics ACMA” on page 325.

Upper division credit may not fulfill credit hours for more than one program. Some substitutions may be required. Appropriate course substitutions follow.

- BISC 365-3 Plant Physiology
- BISC 405-3 Cell Physiology
- KIN 305-3 Human Physiology I
- KIN 306-3 Human Physiology II (Principles of Physiological Regulation)
- MBB 412-4 Enzymology

Students interested in an environmental toxicology minor should contact the department early. A GPA of 2.00 or higher, is required for the courses in the minor program.

**Post Baccalaureate Diploma in Biological Sciences**

Post baccalaureate diploma programs are available in various areas of biological sciences for students who
have already completed a degree (usually) in science and who wish to upgrade their academic credentials.

Note: See “Biological Sciences BISC” on page 328 for 600 and 800 level course descriptions in the Graduate Studies section.

**Marine Science**

Marine science programs may include both BISC and MASC courses to fulfill upper division biological sciences requirements.

MASC courses are offered at Bamfield Marine Sciences Centre, located on Vancouver Island, in conjunction with certain universities in the summer and fall in three or six week blocks. Consult the Department of Biological Sciences in January for course offerings, and for their use as substitutes for upper division BISC courses in major, minor or honors programs.

Course entry requires application through the Department of Biological Sciences well in advance of course commencement because candidate selection across several universities is limited. For information about application entry, fees, etc., consult the Department of Biological Sciences. To take marine science courses, students must apply for university admission through the usual procedures, and be accepted (see “Admission and Readmission” on page 33). MASC courses are offered at the Bamfield Marine Sciences Centre (see page 417 for a list of courses).

Offerings of MASC courses may vary from summer to summer because instructors are drawn from different universities. For that reason, prerequisites may vary slightly. In general, upper division standing in biology sciences requirements.

Students are encouraged to consult the brochure published each fall by the Bamfield Marine Sciences Centre for full and specific details. The brochure will be available from the Department of Biological Sciences.

From time to time graduate level courses will be offered. For information, see “Department of Biological Sciences” on page 316.

**Students from other Departments**

Certain courses may be taken by those not enrolled in biological sciences programs: BISC 100, 101, 102. Admission to certain courses is by permission of the department.

**Department of Chemistry**

C8035 Shrum Science Centre, 604.291.3590 Tel, 604.291.3765 Fax, web.sfu.ca/chemistry

Chair
A.J. Bennet BSc, PhD (Brist), FCIC

Professors Emeriti
S. Aronoff AB, PhD (Calif)
T.N. Bell BSc, PhD (Durf)
Y.L. Chow BSc (Natni Taiwan), PhD (Duquesne), FCIC
J.M. D’Auria BSc (Rensselaer), MSc, PhD (Yale)
W.F.B. Einstein BSc (New Zealand), MSc, PhD (Can), FCIC
L. Funt BSc, MSc (Dal), PhD (McG), FCIC
I.D. Gay BSc, MSc (Dal), PhD (Lond)
R.G. Karteling AB (Hope), BSc (Calif)
G.L. Malli BSc (Delhi), MSc (McM), MS, PhD (Chic)
A.C. Oehlischlager BSc, PhD (Oklahoma)
W.R. Richards AB, PhD (Calif)
K.N. Slessor BSc, PhD (Br Col)

D. Sutton BSc, PhD (Nott)
E.M. Voigt BSc, MSc (McM), PhD (Br Col)
J. Walkley BSc, PhD (Liv), FCIC
S. Wolle BA, MA (Tor), PhD (Ott), FCIC, FRSC

Professors
A.J. Bennet BSc, PhD (Brist), FCIC
N.R. Branda BSc (Tor), PhD (MIT), Canada Research Chair
R.B. Cornell BS (Houghton), PhD (Penn)*
R.H. Hill BSc, PhD (Wont), FCIC
S. Holdcroft BSc (Salt), PhD (S Fraser), FCIC
C.H.W. Jones BSc, PhD (Manc)
P.W. Percival BA, MA, DPhil (Oxt), FCIC
B.M. Pinto BSc, PhD (Qu), FCIC, FRSC
R.K. Pomeroy BSc (Lond), PhD (Alta)
D. Sen BA (Came), MPhil, PhD (Yale)*
Z.G. Ye BSc (Heifei Technol), MSc (Xian Jiaotong), PhD (Bordeaux)

Associate Professors
G. Agnes BSc (Wat), PhD (Alta)
J.A.C. Clyburne BSc (Acad), PhD (Dal)
G.W. Leach BSc, MSc, PhD (Tor)
D.B. Leznoff BSc (York, Can), PhD (Br Col)

Assistant Professors
M.H. Eikerling BSc (Aachen Tech), PhD (Munich Tech)
B.D. Gates BS (W Wash), MS, PhD (Wash), Canada Research Chair
P.C.H. Li BSc (HK), MSc, PhD (Tor)
M.A. O’Neill BSc, PhD (Dal)
E. Plettner BSc, PhD (S Fraser)
J.J. Ressler BS (Minn), PhD (Maryland)
D.J. Vocadlo BSc, PhD (Br Col), Canada Research Chair
C.J. Walsby BSc, PhD (Calif)
J.J. Wilkie BSc, MSc, PhD (Tor)
V. Williams BSc, PhD (Qu)
P.D. Wilson BSc (Newcastle, UK), MSc, PhD (Manc)
H.Z. Yu BSc, MSc (Indomodo), PhD (Peking)

Associate Members
J.L. Bechhofer, Physics
D.H. Boal, Physics
N.R. Forde, Physics
G.J. Gries, Biological Sciences
K.L. Kawanagh, Physics

Adjunct Professors
G.C. Ball BSc (Alta), PhD (Calif)
T.J. Borgford BSc, PhD (Manit)*
L.R. Dalton BS, MS, (Mich), PhD (Harvard)
C.M. Friesen BS, BSE (J Brown), PhD (Alabama)
M.J. Gresser BA, PhD (Brandeis)
C.D. Montgomery BSc (McM), PhD (Wont)
J.T. Russ BSc, PhD (Clark)
L.E. Sojo, BSc, PhD (C’dia)
A.S. Tracey BSc, PhD (S Fraser)
N.N. Weinberg MSc (Moscow State), PhD (Acad Science Moscow)
D.P. Wilkinson BSc (Br Col), PhD (Ott)

Senior Lecturers
R.J. Batchelor BSc (Br Col), PhD (McM)
J.C. Brodovitch BSc (Paster, Stras), PhD (McG)
A.J.L. Hanlan BSc, PhD (Tor)
U.C. Kreis MSc, Dr-Ing (Darmstadt)
R.D. Sharma MSc, PhD (Panjab)

Lecturer
S.M. Laviere BSc (Metropol, Venezuela), MSc (Venezolano de Investigaciones Cientificas, Venezuela), PhD (Central de Venezuela)

joint appointment with biochemistry

Advisor
K.S. MacFarlane BSc, MSc, PhD (Br Col), C8049 Shrum Science Centre, 604.291.3350, kendca@sfu.ca

**Students Intending to Specialize in Chemistry**

The point at which a high school or college student enters the chemistry program is governed by the student’s subject knowledge. CHEM 110 and 111 are not required for the BSc degree but are available as electives to those with no chemistry knowledge or who are starting from BC high school chemistry 11. Those with BC high school chemistry 12 (or equivalent) normally start with CHEM 121. Major and honors students must fulfill program requirements below. Whether majoring in chemistry or not, students may not enroll in any CHEM course for which a D grade was obtained in any prerequisite.

The following statements clarify and standardize the minimum requirements that a student must fulfill to complete a chemistry course as well as those to pass a combination lecture/laboratory course.

**Course Non-completion**

The following conditions will constitute non-completion of the required material in a chemistry course:

- not writing the final examination or its equivalent in the course
- not completing the required minimum number of experiments in a laboratory course or the laboratory component of a course
- not completing additional or alternative material specified by the instructor

The letter grade N will be awarded in these cases. Students must pass both the lecture and laboratory components individually to obtain a passing grade in lecture/laboratory combination courses.

**Graduate Courses**

Graduate courses are available to senior undergraduate students for upper division chemistry credit. See “Chemistry CHEM” on page 339 for a list of all CHEM courses offered, or consult an advisor for specific course offerings.

**Major Program**

Mathematics and physics courses should be taken as early as possible.

**Lower Division Requirements**

(49 credit hours)

CHEM 121-4 General Chemistry and Laboratory I
CHEM 122-2 General Chemistry II
CHEM 126-2 General Chemistry Laboratory II
CHEM 215-4 Introduction to Analytical Chemistry
CHEM 230-3 Inorganic Chemistry
CHEM 236-2 Inorganic Chemistry Laboratory I
CHEM 260-4 Atoms, Molecules, Spectroscopy
CHEM 281-4 Organic Chemistry I
CHEM 282-2 Organic Chemistry II
CHEM 286-2 Organic Chemistry Laboratory II

MATH 151-3 Calculus I
MATH 152-3 Calculus II
MATH 232-3 Elementary Linear Algebra
MATH 251-3 Calculus III

PHYS 120-3 Mechanics and Modern Physics
PHYS 121-3 Optics, Electricity and Magnetism

PHYS 131-2 Physics Laboratory I

**Upper Division Requirements**

(28 credit hours)

CHEM 316-4 Introductory Instrumental Analysis
CHEM 332-3 The Chemistry of Transition Metals
CHEM 336-2 Advanced Inorganic Chemistry Laboratory
CHEM 360-3 Thermodynamics and Chemical Kinetics
PHYS 211-3 Intermediate Mechanics
PHYS 233-2 Introductory Physics Laboratory III

**Upper Division Requirements**
(48 credit hours)
CHEM 316-4 Introductory Instrumental Analysis
CHEM 332-3 The Chemistry of Transition Metals
CHEM 336-2 Advanced Inorganic Chemistry Laboratory
CHEM 360-3 Thermodynamics and Chemical Kinetics
CHEM 366-2 Physical Chemistry Laboratory
CHEM 380-4 Chemical and Instrumental Methods of Identification of Organic Compounds
CHEM 481-5 Undergraduate Research
NUSC 431-3 Introduction to Radiochemistry and one of CHEM 460-3 Advanced Physical Chemistry
CHEM 464-3 Quantum Chemistry
and an additional 19 upper division credit hours in CHEM, MBB or NUSC courses, including at least nine credit hours of 400 level CHEM courses.

**Electives**
(30 credit hours)
- 12 elective hours at any level in subjects outside the Faculty of Science (excluding EDUC 401 to 407), including six hours from the Faculty of Arts and Social Sciences.
- upper division courses chosen from any faculty (but excluding EDUC 401-407) to bring the total to a minimum of 44 hours of upper division credit
- free electives at any level from any faculty to provide 120 credit hours required for the degree.

Students specializing in physical or theoretical chemistry should take more mathematics and physics courses than specified above and a course in computer programming.

**Typical Course Sequence**
The following is a typical course sequence for the first four semesters. Variations are possible.

**Semester 1**
CHEM 121-4 General Chemistry and Laboratory I
MATH 151-3 Calculus I
PHYS 120-3 Mechanics and Modern Physics

deprecated

**Semester 2**
CHEM 122-2 General Chemistry II
CHEM 126-2 General Chemistry Laboratory II
MATH 152-3 Calculus II
PHYS 121-3 Optics, Electricity and Magnetism
PHYS 131-2 Physics Laboratory I

deprecated

**Semester 3**
CHEM 230-3 Inorganic Chemistry
CHEM 236-2 Inorganic Chemistry Laboratory
CHEM 281-4 Organic Chemistry I
MATH 232-3 Elementary Linear Algebra

deprecated

**Semester 4**
CHEM 215-4 Introduction to Analytical Chemistry
CHEM 260-4 Atoms, Molecules, Spectroscopy
CHEM 282-2 Organic Chemistry II
CHEM 286-2 Organic Chemistry Laboratory II
MATH 251-3 Calculus III

**Honors Program**
Mathematics and physics courses should be taken as early as possible to benefit the study of chemistry.

**Lower Division Requirements**
(54 credit hours)
CHEM 121-4 General Chemistry I
CHEM 122-2 General Chemistry II
CHEM 126-2 General Chemistry Laboratory II
CHEM 215-4 Introduction to Analytical Chemistry
CHEM 230-3 Inorganic Chemistry
CHEM 236-2 Inorganic Chemistry Laboratory
CHEM 260-4 Atoms, Molecules, Spectroscopy
CHEM 281-4 Organic Chemistry I
CHEM 282-2 Organic Chemistry II
CHEM 286-2 Organic Chemistry Laboratory II
MATH 151-3 Calculus I
MATH 152-3 Calculus II
MATH 232-3 Elementary Linear Algebra
PHYS 120-3 Mechanics and Modern Physics
PHYS 121-3 Optics, Electricity and Magnetism
PHYS 131-2 Physics Laboratory I

**PHYS 211-3 Intermediate Mechanics**
**PHYS 233-2 Introductory Physics Laboratory III**

**Upper Division Requirements**
(48 credit hours)
CHEM 316-4 Introductory Instrumental Analysis
CHEM 332-3 The Chemistry of Transition Metals
CHEM 336-2 Advanced Inorganic Chemistry Laboratory
CHEM 360-3 Thermodynamics and Chemical Kinetics
CHEM 366-2 Physical Chemistry Laboratory
CHEM 380-4 Chemical and Instrumental Methods of Identification of Organic Compounds
CHEM 481-5 Undergraduate Research
NUSC 431-3 Introduction to Radiochemistry and one of CHEM 460-3 Advanced Physical Chemistry
CHEM 464-3 Quantum Chemistry
and an additional 19 upper division credit hours in CHEM, MBB or NUSC courses, including at least nine credit hours of 400 level CHEM courses.

**Electives**
(30 credit hours)
- 12 elective hours at any level in subjects outside the Faculty of Science (excluding EDUC 401-407), including six hours from the Faculty of Arts and Social Sciences.
- upper division courses chosen from any faculty (but excluding EDUC 401-407) to bring the total to a minimum of 60 hours of upper division credit
- free electives at any level from any faculty to provide the minimum 132 credit hours required.

Those specializing in physical or theoretical chemistry should take more mathematics courses than specified above and a course in computer programming.

**Minor Program**
See page 29 for major-minor regulations. For a chemistry minor, students must complete a minimum of 14 upper division hours in chemistry, biochemistry or nuclear science (including a minimum of eight hours in chemistry, and excluding undergraduate research courses), together with all the prerequisites.

**Environmental Chemistry Minor Program**
Students must complete all of CHEM 121-4 General Chemistry I
CHEM 122-2 General Chemistry II
CHEM 126-2 General Chemistry Laboratory II
CHEM 215-4 Introduction to Analytical Chemistry
CHEM 230-3 Inorganic Chemistry
CHEM 236-2 Inorganic Chemistry Laboratory
CHEM 281-4 Organic Chemistry I
CHEM 316-4 Introductory Instrumental Analysis
CHEM 371-2 Analytical Environmental Chemistry
CHEM 373-1 Chemistry of the Aqueous Environment
CHEM 372-3 Chemistry of the Atmospheric Environment*
and at least one of CHEM 380-4 Chemical and Instrumental Methods of Identification of Organic Compounds
CHEM 415-3 Selected Topics in Analytical Chemistry
NUSC 341-3 Introduction to Radiochemistry
*CHEM 380 must be taken as a prerequisite

**Nuclear Science Minor Program**
To qualify for this program offered jointly with the Department of Physics, students must complete 14 upper division credit hours from the following.

**CHEM 482-3 Directed Study in Advanced Topics of Chemistry**
NUSC 341-3 Introduction to Radiochemistry
NUSC 342-3 Introduction to Nuclear Science
NUSC 344-3 Nucleosynthesis and Distribution of the Elements
NUSC 346-2 Radiochemistry Laboratory
NUSC 444-3 Special Topics in Nuclear Science
NUSC 485-3 Particle Physics
PHYS 385-3 Quantum Physics

**Advice to Students from Other Faculties**
Prerequisites and corequisites cited in the Undergraduate Courses section are for those intending to specialize in science. Some may be waived for programs in the Faculties of Applied Sciences, Arts, Business Administration and Education. CHEM 110 and 111 are suitable for students with no previous training in chemistry.

**Biochemistry**
For information about biochemistry, see “Department of Molecular Biology and Biochemistry” on page 229.

**Chemical Physics**
See “Chemical Physics Major Program” on page 233.

**Co-operative Education**
D. Bartette, co-op co-ordinator, Faculty of Science, 604.291.4694
This program combines work experience with academic studies. The student spends alternate semesters on campus and in study related jobs. A major and honors program leading to a BSc degree, and a co-operative education program incorporating four work semesters are available in chemistry and related areas. The work practicum requirements are CHEM 306, 307, 406 and 407.
Application is at least three months prior to the start of the semester in which they take CHEM 306. Seek department advice as early as possible. A minimum 2.67 CGPA is required to enrol and continue in the major in co-op education. Higher averages are required for entry to and continuance in an honors program in co-operative education. See page 240.

**Department of Earth Sciences**
TASC 1– 7201, 604.291.5387 Tel, 604.291.4198 Fax, www.sfu.ca/earth-sciences
Chair
D.M. Allen BSc, MSc, PhD (Car)
Professor Emeritus
M.C. Roberts BSc (Lond), MA (Tor), PhD (Iowa), PGeo
Forest Renewal BC Endowed Chair
D. Stead BSc (Exe), MSc (Leeds), PhD (Nott), CEng
Professors
J.J. Clague BA (Occidental), MSc (Calif, PhD (Br Col), PGeo, Canada Research Chair in Natural Hazards
E.J. Hickin BA, PhD (Syd), PGeo*
Associate Professors
D.M. Allen BSc, MSc, PhD (Car)
A.J. Calvert BA (Oxf), PhD (Camb)
J.A. MacEachern BSc, MSc (Regina), PhD (Alta)
D. Marshall BSc, MSc (Car), DSc (Lausanne)
P.S. Mustard BSc (Calg), MSc, PhD (Car), PGeo
D.J. Thorlelson BSc, MSc (Br Col), PhD (Car)
Assistant Professors
B.P. Coffey BSc (N Carolina), PhD (VPI&SU)
G. Flowers BA (Colorado), PhD (Br Col), Canada
Research Chair in Glaciology
H.D. Gibson, BSc (Colgiate), MSc, PhD (Car)
B.C. Ward BSc, PhD (Alta)
G. Williams-Jones BSc, MSc (Montr), PhD
(Open, UK)

Adjunct Professors
R. Enkin BSc, MSc (Tor), Diplommede Doctorat (Paris)
D. Froese BSc (Leh), MSc, PhD (Calg)
L. Godin BSc, MSc (Queb), PhD (Car)
J.W. Haggart BS (Ariz), MS, PhD (Calif)
L. Jackson BA (San Francisco), MSc (Stan),
PhD (Calg)
O. Lian BSc, MSc (S Fraser), PhD (Wont)
J.W.H. Monger BSc (Reading), MSc (Kansas), PhD
(Br Col)
J. Moore BSc, PhD (MIT)
P.H. Whitfield BSc, MSc (Br Col)

Lecturers
K. Cameron BSc (St Mary’s, Can), MSc (Nfld)
R. Dunlop BSc (Alta), MSc (Br Col)

Advisors
Ms. T. Vaisanen, TASC 1– 7203, 604.291.4779 Tel,
604.291-4198 Fax
Mr. K. Cameron, TASC 1– 7233, 604.291.4703 Tel
Ms. R. Dunlop, TASC 1– 7009, 604.291.4925 Tel
Mr. Cameron and Ms. Dunlop are available
for consultation on career advice, general program
information and for assisting students in selecting
courses within the department.

*Joint appointment with geography

Major Program

Lower Division Requirements
(56 credit hours)

CHEM 121-4 General Chemistry and Laboratory I
CHEM 122-2 General Chemistry II
CHEM 126-2 General Chemistry Laboratory II
EASC 101-3 Physical Geography
EASC 201-3 Stratigraphy and Sedimentation
EASC 202-3 Introduction to Mineralogy
EASC 203-3 Paleontology
EASC 204-3 Structural Geology I
EASC 205-3 Introduction to Petrology
EASC 206-1 Field Geology
EASC 207-3 Introduction to Applied Geophysics
EASC 208-3 Introduction to Geochemistry
EASC 210-3 Historical Geology
GEOG 213-3 Geomorphology
MATH 151-3 Calculus I
MATH 152-3 Calculus II
STAT 101-3 Introduction to Statistics
and one of
PHYS 101-3 General Physics I*
PHYS 120-3 Modern Physics and Mechanics
and one of
PHYS 102-3 General Physics II*
PHYS 121-3 Optics, Electricity and Magnetism
and one of
PHYS 130-2 General Physics Laboratory*
PHYS 131-2 Physics Laboratory I

*with a grade of B or better

Upper Division Requirements

Students must complete a minimum of 39 credit
hours as defined below:
The following 18 required credit hours:

EASC 301-3 Igneous and Metamorphic Petrology
EASC 302-3 Sedimentary Petrology
EASC 303-3 Environmental Geoscience
EASC 304-3 Hydrogeology
EASC 306-3 Field Geology II
EASC 309-3 Global Tectonics
plus three credit hours chosen from:
EASC 406-3 Field Geology III**
EASC 416-3 Field Methods in Hydrogeology**
plus 18 additional credit hours chosen from:***
EASC 307-3 Applied Geophysics
EASC 313-3 Introduction to Soil and Rock
Engineering
EASC 317-3 Global Geophysics
GEOG 313-4 Geomorphology II
EASC 401-3 Mineral Deposits
EASC 402-3 Sedimentology
EASC 403-3 Quaternary Geology
EASC 404-3 Structural Geology II
EASC 406-3 Field Geology III
EASC 408-3 Regional Geology of Western Canada
EASC 409-3 Rivers: Environments & Engineering
EASC 410-3 Groundwater Geochemistry and
Transport
EASC 411-3 Terrain Analysis
EASC 412-3 Advanced Geochemistry
EASC 413-3 Resource Geotechnics
EASC 416-3 Field Techniques in Hydrogeology
EASC 417-3 Seismology
EASC 418-1 Terrain Stability: Assessment and
Mitigation
EASC 419-1 Forest Harvesting Technology
EASC 420-3 Petroleum Geology
EASC 491-1 Directed Reading*
EASC 492-2 Directed Reading*
EASC 493-3 Directed Reading*
*students may only complete a maximum of three
hours from a combination of EASC 491, 492, or 493
**students completing both EASC 406 and 416 may
use three credit hours towards the 18 additional credit
hours in the upper division requirement.
***EASC 300 and 400 level Special Topics courses
may also be used as credit towards the 18 additional
credit hours.

Other Requirements

Students must also complete six additional upper
division credit hours in the Faculty of Science or
physical geography. These courses may be used
under the minor’s requirements in another
department. Students who intend to apply for
registration with APEGBC may be required to
complete additional courses that are not required
for the major. Seek advice from the department.

Honors Program

This BSc program offers a wider cross-section of
discipline-related courses while providing an
opportunity for independent research. Entry requires a
3.00 or higher CGPA, and permission of the
department. This program has the same
requirements as for the major except for the following
additional requirements.
• maintenance of a minimum GPA of 3.00
• a minimum of 60 credit hours of 300 and 400 level
EASC or physical geography courses, or related
courses approved by the department. Students are
strongly advised to select courses in consultation
with advisors and considering career goals.
• completion of appropriate electives to achieve a final
total of at least 132 credits hours, including at least
12 credit hours from outside the Faculty of Science
• the completion of EASC 499

Minor Program

Students must complete the following two courses.
EASC 101-3 Physical Geology
EASC 210-3 Historical Geology
and at least three of
EASC 201-3 Stratigraphy and Sedimentation
EASC 202-3 Introduction to Mineralogy
EASC 203-3 Paleontology
EASC 204-3 Structural Geology
EASC 206-1 Field Geology
EASC 207-3 Introduction to Applied Geophysics
EASC 208-3 Introduction to Geochemistry
plus 14 credit hours in any 300 and 400 level EASC
courses excluding EASC 491, 492, 493 and 499.

Certificate in Forestry Geoscience

This program provides an opportunity to obtain a
specialization in geoscience courses having direct
relevance to forestry industry careers. It is directed, in
the first place, to undergraduate taking a major in
earth sciences or physical geography. Credits applied
to this certificate may not be applied to another Simon
Fraser University certificate or diploma.

Program Requirements

The certificate requires the completion of 30-32 credit
hours of required course work and electives as
follows.

Required Courses

24 credit hours

EASC 204-3 Structural Geology I
EASC 313-3 Introduction to Soil and Rock
Engineering
EASC 411-3 Terrain Analysis
EASC 413-3 Resource Geotechnics
EASC 418-1 Terrain Stability: Assessment and
Mitigation
EASC 419-1 Forest Harvesting Technology
EASC 420-3 Petroleum Geology
EASC 491-1 Directed Reading*
EASC 492-2 Directed Reading*
EASC 493-3 Directed Reading*

Elective Courses

Students must complete one of
EASC 304-3 Hydrogeology
EASC 311-4 Hydrology I

Co-operative Education Program

Co-operative education, combining relevant work
experience with academic studies in alternate
semesters on campus and in study related
employment, includes pre-employment orientation
and four full-time paid work semesters. Co-operative
education is available to qualified earth sciences
majors and honors students. To enrol, students should attend the co-op information
meetings held in the first two weeks of the semester
prior to the semester in which they wish to work.
Students should seek advice from the science and
environment co-operative education office as early as
possible in their university careers to facilitate optimal
scheduling. Contact the Co-operative Education
Office, 8108 South Science Building, 604.291.4716.

Simon Fraser University 2005 • 2006
Professional Registration as a BC Geoscientist

The right to practice in, and to accept professional responsibility for geoscience in BC is limited to registered members of the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC). Requirements can be met through the Department of Earth Sciences and selected courses from other university departments. Consult the advisor for further details.

Environmental Science Program

www.sfu.ca/envsci

Program Director
A.S. Harestad BSc, MSc, PhD (Br Coll), Department of Biological Sciences, 8153 South Science Building, 604.291.4809 Tel, 604.291.3496 Fax, alton_harestad@sfu.ca

Advisor
Ms. R. Hotell, faculty assistant, Faculty of Science, PB204 Shrum Science Centre, 604.291.3772 Tel, 604.291.3424 Fax, hotel@sfu.ca

Subject Advisors
Dr. G. Agnes, Department of Chemistry, 7102 South Science Building, 604.291.4387 Tel, 604.291.3765 Fax, gagnes@sfu.ca

Dr. G. Williams-Jones, Department of Earth Sciences, TASC 1-7201, 604.291.3306 Tel, 604.291.4198 Fax, glynwj@sfu.ca

Dr. K. Kavanagh, Department of Physics, PB443 Shrum Science Centre, 604.291.4244 Tel, 604.291.3592 Fax, kavanagh@sfu.ca

Dr. L. Routledge, Department of Statistics and Actuarial Science, 10537 Shrum Science Centre, 604.291.4947 Tel, richard_routledge@sfu.ca

Program provides a broad education with specialization in one of six areas of emphasis: biology, chemistry, envirometrics, physical geography, pollutant transport, and quantitative techniques for resource management. Extensive lower division requirements necessitate careful planning of course sequencing to ensure timely completion of the program. For advice about admission and general program requirements, see the director or faculty assistant.

Major Program

This program requires 120 credit hours including at least 44 in courses numbered 300 and above, and a minimum of 12 credit hours from outside the Faculty of Science. The minimum CGPA for continuation and graduation is 2.50. General University and Faculty of Science regulations also apply. The following requirements, organized by year, suggest a sequence for timely program completion.

Biology

Year One
BISC 101-4 General Biology
BISC 102-4 General Biology
CHEM 121-4 General Chemistry and Laboratory I
CHEM 122-2 General Chemistry II

and one of
MATH 151-3 Calculus I
MATH 154-3 Calculus I for the Biological Sciences
MATH 157-3 Calculus for the Social Sciences I
and one of
MATH 152-3 Calculus II
MATH 155-3 Calculus II for the Biological Sciences

and one of
PHYS 101-3 General Physics I
PHYS 120-3 Mechanics and Modern Physics

Year Two
BISC 204-3 Introduction to Ecology
CHEM 215-4 Introduction to Analytical Chemistry
CHEM 230-3 Inorganic Chemistry
CHEM 281-4 Organic Chemistry I
EVSC 200-3 Introduction to Environmental Science
GEOG 111-3 Physical Geography

and one of
STAT 270-3 Introduction to Probability and Statistics
STAT 201-3 Statistics for the Life Sciences

and one of
PHYS 102-3 General Physics II
PHYS 121-3 Optics, Electricity and Magnetism

Year Three
BISC 304-3 Animal Ecology
BISC 305-3 Animal Physiology
BISC 312-3 Environmental Toxicology I
ECON 103-3 Principles of Microeconomics
ECON 105-3 Principles of Macroeconomics

STAT 302-3 Analysis of Experimental and Observational Data

Year Four
BISC 202-3 Genetics
BISC 404-3 Plant Ecology
BISC 414-3 Limnology
EVSC 401-1 Current Topics in Environmental Science
PHY 346-3 Energy and the Environment

and one of
STAT 403-3 Intermediate Sampling and Experimental Design

and at least 18 credit hours from the following courses to be completed in years three or four.

BISC 305-3 Animal Physiology
BISC 414-3 Limnology
CHEM 380-4 Chemical and Instrumental Methods of Identification of Organic Compounds
CHEM 460-3 Advanced Physical Chemistry
EVSC 491-3 Advanced Field Studies in Environmental Science
GEOG 316-4 Ecosystem Biogeochemistry
GEOG 317-4 Soil Science I
NUSC 343-1 Introduction to Radiochemistry
NUSC 342-3 Introduction to Nuclear Science
NUSC 346-2 Radiochemistry Laboratory
REM 311-3 Applied Ecology and Sustainable Environments
REM 356-3 Management Institutions
REM 412-3 Environmental Modelling
REM 445-3 Environmental Risk Assessment

Electives

Additional electives may be required to meet the 120 credit hour graduation requirement, including at least 44 at the upper division.

Environmetrics

These Year One and Two requirements are the same as for the biology area of emphasis except that students must take STAT 270, and not the alternative course, STAT 201. Please refer to that section for other requirements.

Year Three
CHEM 306-3 Chemical Kinetics and Thermodynamics
CHEM 316-4 Introductory Instrumental Analysis
CHEM 371-3 Chemistry of the Aqueous Environment
ECON 103-3 Principles of Microeconomics
ECON 105-3 Principles of Macroeconomics

Electives

Additional electives are required to meet the total 120 credit hour graduation requirement, including at least 44 at the upper division.

Chemistry

These Year One and Two requirements are the same as for the biology area of emphasis. Please refer to that section above.

Year Three
CHEM 236-2 Inorganic Chemistry Laboratory
CHEM 282-2 Organic Chemistry II
CHEM 286-2 Organic Chemistry Laboratory II
CHEM 360-3 Thermodynamics and Chemical Kinetics
CHEM 316-4 Introductory Instrumental Analysis
CHEM 371-3 Chemistry of the Aqueous Environment
ECON 103-3 Principles of Microeconomics
ECON 105-3 Principles of Macroeconomics

Electives

Additional electives are required to meet the total 120 credit hour graduation requirement, including at least 44 at the upper division.
Undergraduate

EVSC 401-1 Current Topics in Environmental Science
PHYS 346-3 Energy and the Environment
STAT 402-3 General Linear and Nonlinear Modelling
STAT 410-3 Statistical Analysis of Sample Surveys
STAT 430-3 Statistical Design and Analysis of Experiments
and at least three courses from the following to be completed in years three or four.

BISC 304-3 Animal Ecology
BISC 312-3 Environmental Toxicology
BISC 414-3 Limnology
CHEM 372-3 Chemistry of the Atmospheric Environment
EVSC 491-3 Advanced Field Studies in Environmental Science
GEOG 214-3 Climatology
GEOG 316-4 Ecosystem Biogeochemistry
GEOG 354-4 Introduction to Geographic Information Systems
REM 356-3 Management Institutions
REM 412-3 Environmental Modelling
REM 445-3 Environmental Risk Assessment and Management of Hazardous Substances
REM 471-3 Forest Ecosystem Management

Electives
Additional electives are required to meet the total 120 credit hour graduation requirement including at least 44 at the upper division.

Suggested Groupings of Courses
The following course groupings for different focuses are suggested.

Biology Focus
BISC 304-3 Animal Ecology
BISC 312-3 Environmental Toxicology
GEOG 316-4 Ecosystem Biogeochemistry
REM 311-3 Applied Ecology and Sustainable Environments
REM 412-3 Environmental Modelling
REM 445-3 Environmental Risk Assessment and Management of Hazardous Substances

Aquatic Chemistry Focus
BISC 414-3 Limnology
GEOG 311-4 Hydrology
GEOG 316-4 Ecosystem Biogeochemistry
REM 311-3 Applied Ecology and Sustainable Environments
REM 412-3 Environmental Modelling
REM 445-3 Environmental Risk Assessment

Atmospheric Focus
CHEM 372-3 Chemistry of the Atmospheric Environment
GEOG 214-3 Climatology
REM 311-3 Applied Ecology and Sustainable Environments
REM 412-3 Environmental Modelling
REM 445-3 Environmental Risk Assessment and Management of Hazardous Substances

Physical Geography
Years One and Two
BISC 101-4 General Biology
BISC 102-4 General Biology
CHEM 121-4 General Chemistry and Laboratory I
CHEM 122-2 General Chemistry II
CHEM 126-2 General Chemistry Laboratory II
REM 100-3 Global Change
GEOG 111-3 Physical Geography
GEOG 213-4 Geomorphology I
GEOG 214-3 Climatology I
EVSC 200-3 Introduction to Environmental Science
and one of MATH 151-3 Calculus I
MATH 154-3 Calculus I for Biological Sciences
MATH 157-3 Calculus I for Social Sciences
and one of MATH 152-3 Calculus II
MATH 155-3 Calculus II for Biological Sciences
MATH 158-3 Calculus II for Social Sciences
and one of PHYS 101-3 General Physics I
PHYS 120-3 Mechanics and Modern Physics
and one of PHYS 102-3 General Physics II
PHYS 121-3 Optics, Electricity and Magnetism
and one of BISC 204-3 Introduction to Ecology
GEOG 213-2 Biogeography
and one of STAT 201-3 Statistics for the Life Sciences
STAT 270-3 Introduction to Probability and Statistics
and one of GEOG 250-3 Cartography
GEOG 253-3 Aerial Photographic Interpretation
GEOG 255-3 Geographical Information Science I
Eight credit hours of electives
Total 60 credit hours

Years Three and Four
ECON 103-3 Principles of Microeconomics
ECON 105-3 Principles of Macroeconomics
EVSC 401-1 Current Topics in Environmental Science
GEOG 311-4 Hydrology
GEOG 316-4 Ecosystem Biogeochemistry
GEOG 317-4 Soil Science I
PHYS 346-3 Energy and the Environment
STAT 302-3 Analysis of Experimental and Observational Data
and one of GEOG 352-3 Field Techniques in Spatial Analysis II
STAT 403-3 Intermediate Sampling and Experimental Design
and two of GEOG 313-4 Geomorphology II
GEOG 314-4 Climatology II
GEOG 315-4 Biogeography
GEOG 411-4 Hydrology II
GEOG 412-4 Glacial Processes and Environments
GEOG 413-4 Geomorphology III
GEOG 414-4 Climatology III
GEOG 415-4 Advanced Biogeography
GEOG 417-4 Soil Science II
and three of BISC 310-3 Plants and Animals of British Columbia
BISC 366-3 Plant Physiology*
BISC 367-3 Plant Physiology Laboratory*
BISC 403-3 Plant Ecology
BISC 404-3 Plant Ecology
BISC 434-3 Paleoclimatology and Palynology
CHEM 371-3 Chemistry of the Aqueous Environment
CHEM 372-3 Chemistry of the Atmospheric Environment
EASC 304-3 Hydrology
EASC 410-3 Groundwater Geochemistry and Contaminant Transport
EASC 417-4 Soil Science II
and one of MATH 151-3 Calculus I
MATH 153-3 Calculus I for the Biological Sciences
MATH 157-3 Calculus I for the Social Sciences I
and one of MATH 152-3 Calculus II
MATH 155-3 Calculus II for the Biological Sciences
MATH 158-3 Calculus II for the Social Sciences II
and one of PHYS 101-3 General Physics I
PHYS 120-3 Mechanics and Modern Physics*
and one of PHYS 102-3 General Physics II
PHYS 121-3 Optics, Electricity and Magnetism*
*recommended

Pollutant Transport
Year One (*designates the preferred option)
BISC 101-4 General Biology
CHEM 121-4 General Chemistry and Laboratory I
CHEM 122-2 General Chemistry II
CHEM 126-2 General Chemistry Laboratory II
REM 100-3 Global Change

EASC 303-3 Environmental Geoscience
EASC 304-3 Hydrogeology*
EASC 403-3 Quaternary Geology
EASC 409-3 Rivers: Environments and Engineering*
EASC 410-3 Groundwater Geochemistry and Contaminant Transport*
EVSC 491-3 Advanced Field Studies in Environmental Science
REM 311-3 Applied Ecology and Sustainable Environments
REM 356-3 Management Institutions
REM 412-3 Environmental Modelling
REM 445-3 Environmental Risk Assessment
REM 471-3 Forest Ecosystem Management
GEOG 355-4 Geographical Information Science II
and one of CHEM 351-4 Cartography and Visualization
GEOG 353-4 Remote Sensing
GEOG 355-4 Geographical Information Science II
In addition to the above, students must complete 7-11 elective credit hours to bring the total to the required 120 credit hours. Also, of these credit hours 44 must be upper division to satisfy the Faculty of Science requirements for a major.

Suggested Groupings of Courses
Three groupings of courses are identified below to aid students in their choice of electives.

Aquatic Environments
BISC 414-3 Limnology
BISC 416-3 Fish Biology
CHEM 371-3 Chemistry of the Aqueous Environment
EASC 409-3 Rivers: Environments and Engineering
GEOG 411-4 Hydrology II
GEOG 413-4 Geomorphology III

Plants and Environment
BISC 310-3 Plants and Animals of British Columbia
BISC 366-3 Plant Physiology
BISC 367-3 Plant Physiology Laboratory
BISC 404-3 Plant Ecology
BISC 434-3 Paleoclimatology and Palynology
GEOG 314-3 Climatology II
GEOG 315-4 Regional Ecologies
GEOG 415-4 Advanced Biogeography
GEOG 417-4 Soil Science II
REM 471-4 Forest Ecosystem Management

Biogeochemistry
BISC 414-3 Limnology
CHEM 371-3 Chemistry of the Aqueous Environment
CHEM 372-3 Chemistry of the Atmospheric Environment
EASC 304-3 Hydrology
EASC 410-3 Groundwater Geochemistry and Contaminant Transport
GEOG 417-4 Soil Science II

Simon Fraser University 2005 • 2006
Suggested Groupings of Courses

The following groupings of courses for different focuses are suggested.

Aqueous Biology Focus
- BISC 312-3 Environmental Toxicology
- BISC 414-3 Limnology
- CHEM 360-3 Chemical Kinetics and Thermodynamics
- GEOG 316-4 Ecosystem Biogeochemistry
- REM 313-3 Applied Ecology and Sustainable Environments
- REM 412-3 Environmental Modelling

Aquatic Chemistry Focus
- BIOS 414-3 Limnology
- CHEM 316-4 Introductory Instrumental Analysis
- CHEM 317-2 Analytical Environmental Geochemistry
- CHEM 360-3 Chemical Kinetics and Thermodynamics
- CHEM 371-3 Chemistry of the Aqueous Environment
- EASC 416-3 Field Techniques in Hydrogeology
- NUSC 341-3 Introduction to Radiochemistry
- REM 412-3 Environmental Modelling
- REM 445-3 Environmental Risk Assessment and Management of Hazardous Substances

Earth Properties Focus
- EASC 303-3 Environmental Geoscience
- EASC 307-3 Applied Geophysics
- EASC 313-3 Introduction to Soils and Rock Engineering
- EASC 403-3 Quaternary Geology
- EASC 416-3 Field Techniques in Hydrogeology
- EASC 431-3 Geomorphology II
- EASC 417-4 Soil Science I
- GEOG 354-4 Introduction to Geographic Information Systems
- STAT 403-3 Intermediate Sampling and Experimental Design

Atmospheric Focus
- EASC 312-3 Environmental Toxicology
- CHEM 360-3 Chemical Kinetics and Thermodynamics
- CHEM 372-3 Chemistry of the Atmospheric Environment
- GEOG 314-4 Climatology II
- GEOG 315-4 Regional Ecosystems
- GEOG 316-4 Ecosystem Biogeochemistry
- GEOG 317-4 Soil Science I
- GEOG 354-4 Introduction to Geographic Information Systems
- STAT 403-3 Intermediate Sampling and Experimental Design

Transport Modelling Focus
- EASC 416-3 Field Techniques in Hydrogeology
- GEOG 354-4 Introduction to Geographic Information Systems
- MATH 322-3 Complex Variable
- MATH 416-3 Numerical Analysis II
- MATH 418-3 Partial Differential Equations
- MATH 467-3 Dynamical Systems
- MATH 462-3 Fluid Dynamics
- MACM 316-3 Numerical Analysis I
- REM 422-3 Environmental Modelling
- STAT 403-3 Intermediate Sampling and Experimental Design

Quantitative Techniques for Resource Management

Year One
- BISC 101-4 General Biology
- BISC 102-4 General Biology
- CHEM 120-3 General Chemistry I
- CHEM 122-2 General Chemistry II
- ECON 103-3 Principles of Microeconomics
- REM 100-3 Global Change
- one of
- MATH 151-3 Calculus I
- MATH 154-3 Calculus I for the Biological Sciences
- MATH 157-3 Calculus for the Social Sciences I
- and one of
- MATH 152-3 Calculus II
- MATH 153-3 Calculus II for the Biological Sciences
- MATH 158-3 Calculus for the Social Sciences II
- and one of
- PHYS 101-3 General Physics I
- PHYS 120-3 Mechanics and Modern Physics

Year Two
- BISC 204-3 Introduction to Ecology
- ECON 105-3 Principles of Macroeconomics
- ECON 260-3 Environmental Economics
- EVSC 200-3 Introduction to Environmental Science
- GEOG 111-3 Physical Geography
- PHYS 200-3 General Physics II
- PHYS 121-3 Optics, Electricity and Magnetism

Year Three
- BISC 303-3 Animal Ecology
- MACT 316-3 Numerical Analysis I
- MATH 308-3 Linear Programming
- MATH 310-3 Introduction to Ordinary Differential Equations
- MATH 314-4 Boundary Value Problems
- MATH 315-3 Calculus III
- MATH 316-3 Elementary Linear Algebra
- STAT 285-3 Intermediate Probability and Statistics
- STAT 350-3 Linear Models in Applied Statistics

Year Four
- BISC 407-3 Population Dynamics
- EVSC 401-1 Current Topics in Environmental Science
- MATH 309-3 Continuous Optimization
- STAT 402-3 Generalized Linear and Nonlinear Modelling
- STAT 410-3 Statistical Analysis of Sample Surveys
- STAT 430-3 Statistical Design and Analysis of Experiments

and at least four courses from the following to be completed in years three or four
- BISC 303-3 Evolution
- BISC 305-3 Animal Physiology
- ECON 261-3 Resources and the Economy of British Columbia
- EVSC 491-3 Advanced Field Studies in Environmental Science
- GEOG 354-4 Introduction to Geographic Information Systems
- REM 311-3 Applied Ecology and Sustainable Environments
- REM 358-3 Management Institutions
- REM 412-3 Environmental Modelling
- REM 445-3 Environmental Risk Assessment and Management of Hazardous Substances
- REM 471-3 Forest Ecosystem Management

Electives

Additional electives are required to meet the total graduation requirement of 120 credit hours, including at least 44 at the upper division level.

Suggested Groupings of Courses

The following groupings of courses for different focuses are suggested.

Fisheries Focus
- BISC 300-3 Evolution
- BISC 305-3 Animal Physiology
- GEOG 354-4 Introduction to Geographic Information Systems
- REM 311-3 Applied Ecology and Sustainable Environments
general science program

students must complete all of bis 101-4 general biology
bisc 102-4 general biology
chem 121-4 general chemistry and laboratory i
chem 122-2 general chemistry ii
chem 126-2 general chemistry laboratory ii
and all of phys 101-3 general physics i
phys 102-3 general physics ii
phys 130-2 general physics laboratory or
all of phys 120-3 mechanics and modern physics
phys 121-3 optics, electricity and magnetism
phys 131-2 general physics laboratory i
and both of math 154-3 calculus i for the biological sciences
math 155-3 calculus ii for the biological sciences
or both of math 151-3 calculus i
math 152-3 calculus ii

other requirements

the student must also satisfy the following general requirements.

• one statistics course at the upper or lower division
• additional upper division courses (excluding educ 401-407) to accumulate a minimum total of 44 credit hours of upper division credit
• a minimum of 12 hours in subjects outside the faculty of science, including a minimum of six credit hours from the faculty of arts and social sciences
• a gpa of 2.0 in upper division courses required for each of two subject area minors, with a minimum c-grade in courses used for the subject area minors.

consult departmental advisors about selection of upper division courses in subject minors. students...
should include science-related courses such as PHIL 244, 341 and HIST 360, 361 in their programs.

Management and Systems Science Program

K10512 Shrum Science Centre, 604.291.3331/3332
Tel, 604.291.4947 Fax, www.math.sfu.ca/mssc/

For a list of faculty, see “Department of Mathematics” on page 224 and “Department of Statistics and Actuarial Science” on page 235.

Advisor
Dr. P. Lisonek MSc (Palacky), PhD (J Kepler), K10526
Shrum Science Centre, 604.291.3666

The Department of Mathematics and the Department of Statistics and Actuarial Science, in conjunction with the Faculty of Business Administration, the School of Computing Science and Department of Economics, offer a major in honors and minor in management and systems science (MSSC) leading to a BSc degree. These are highly structured programs providing a multidisciplinary approach to quantitative methods for business and industry in an environment of rapid changes in technology.

The Management and Systems Science program co-ordinator is selected from the associated faculty. This program is managed alternately by the two departments: academic years 2004/2005 and 2005/2006 the Department of Mathematics hosts the program; academic years 2006/2007 and 2007/2008 the Department of Statistics and Actuarial Science.

Students formally apply to be admitted into the program. Admission into the program is decided on a competitive basis. Acceptance will be based on the GPA in lower division program-related courses at SFU as well as overall academic performance as measured by the cumulative grade point average (CGPA). The CGPA is calculated based on all work completed at SFU as described in the General Regulations section.

A student may apply for program acceptance during the semester in which she/he is completing all lower division requirements. Transfer and second degree students who have credit for all lower division requirements may apply for special admission consideration based on transcripts from other post-secondary institutions. To remain in the program, students must maintain a 2.5 CGPA. It is strongly recommended that you contact the program advisor or co-ordinator early about admission and scheduling.

Major Program

• Under program and University regulations a general degree requires a minimum of 44 upper division credits in courses numbered 300 and above, completion of at least 120 credit hours, and completion of the major program.

• Six elective credit hours must be completed in courses taken from outside the Faculty of Business Administration, School of Computing Science, Departments of Economics, Mathematics, and the Department of Statistics and Actuarial Science.

• Completion of all lower and upper division courses shown below is required. However, students should be aware of the departmental requirements for entrance into their courses. Contact those departments for further information.

Lower Division Requirements

Business Administration

one of

BUS 207-3 Managerial Economics
ECON 301-5 Intermediate Microeconomic Theory

plus all of

BUS 251-3 Financial Accounting I Computing Science
BUS 272-3 Behavior in Organizations

Computing Science

CMPT 126-3 Introduction to Computer Science and Programming

or both of

CMPT 120-3 Introduction to Computing Science and Programming I

CMPT 125-3 Introduction to Computing Science and Programming II

Economics

ECON 103-3 Principles of Economics (I)

Microeconomics

ECON 105-3 Principles of Economics (II)

Mathematics and Computing Science

MACM 101-3 Discrete Mathematics I

MACM 201-3 Discrete Mathematics II

Mathematics and Statistics

MATH 151-3 Calculus I

MATH 152-3 Calculus II

MATH 223-3 Elementary Linear Algebra

MATH 251-3 Calculus III

STAT 270-3 Introduction to Probability and Statistics

STAT 285-3 Intermediate Probability and Statistics

Upper Division Requirements

For the BSc degree in management and systems science, all of the upper division courses listed below are required.

Students must take a minimum of 34 upper division credit hours, such that at least nine are taken from each of the groups under business administration (excluding ECON 301), computing science, and mathematics and statistics. Those credit hours taken beyond 34 can be applied to other major or minor programs. Only one of ECON 301 and BUS 207 is required for the Management and Systems Science major program.

Business Administration

BUS 343-3 Introduction to Marketing
BUS 380-3 Business Communication
BUS 364-3 Information Systems in Organization and Society
BUS 473-4 Operations Management

Computing Science

one of

BUS 440-4 Simulation in Management Decision Making
CMPT 300-3 Operating Systems I
CMPT 305-3 Computer Simulation and Modelling

and all of

CMPT 307-3 Data Structures and Algorithms
CMPT 354-3 Database Systems I
CMPT 370-3 Information System Design

Economics

one of

BUS 207-3 Managerial Economics
ECON 301-5 Intermediate Microeconomic Theory

Management and Systems Science

MSSC 480-1 Undergraduate Seminar in Management and Systems Science
MSSC 481-1 Undergraduate Seminar in Management and Systems Science

Mathematics and Statistics

MATH 308-3 Linear Programming

MATH 343-3 Applied Discrete Mathematics

MATH 345-3 Introduction to Graph Theory

STAT 350-3 Linear Models in Applied Statistics

Students should note the prerequisites for these courses. However, BUS 237 and 336 are waived for MSSC majors and honors.

Note: BUEC 232, BUEC 333 and ECON 331 will not be accepted towards the 120 or 132 credit hours required for the MSSC major or honors degree.

Honors Program

• Under University regulations, an honors degree requires completion of a minimum of 60 upper division credit hours in courses numbered 300 and above, including at least 50 upper division credit hours in the honors program, and completion of at least 132 credit hours. Honors students require a graduation GPA of not less than 3.00.

• Students must complete all of the requirements as specified above for the degree with the major program. In addition, the student must complete the following upper division courses.

  both of

CMPT 405-3 Design and Analysis of Computing Algorithms
STAT 330-3 Introduction to Mathematical Statistics

and one of

MATH 443-3 Combinatorial Theory
MATH 445-3 Graph Theory
MATH 447-3 Coding Theory

• Students must also complete at least three credit hours in business administration or in economics at the 400 division.

For major or honors, the following upper division courses are recommended.

BUS 312-4 Business Finance
BUS 488-3 Human Relations in Business
BUED 396-3 The Structure of Industry
CMPT 405-3 Design and Analysis of Computing Algorithms
ECON 431-5 Intermediate Mathematical Economics
MACM 316-3 Numerical Analysis I
MATH 310-3 Introduction to Ordinary Differential Equations
MATH 443-4 Combinatorial Theory
STAT 483-6 Data Analysis
STAT 410-3 Statistical Analysis of Sample Surveys
STAT 430-3 Statistical Design and Analysis of Experiments
STAT 460-3 Bayesian Statistics

Note: Students who wish to combine the MSSC honors program with another major or minor should consult with the MSSC program co-ordinator.

Department of Mathematics

K10512 Shrum Science Centre, 604.291.3331/3332
Tel, 604.291.4947 Fax, www.math.sfu.ca

Chair
T. Archibald BMath (Wat), MA (York), MA, PhD (Tor)

Professors Emeriti
B.R. Alsopch BA (Wasch), MA, PhD (Calif)
G. Bojadziev PhD (Sofia Mech Eng Inst)
T.C. Brown BA (Reed), AM, PhD (Wasch, Mo)
A. Das BSc, MSc, PhD (University Coll, Dublin), DSc (Calc)
R. Harrop BA, MA, PhD (Camb)
A.H. Lachlan BA, MA, PhD (Camb), FRSC
R.W. Lardner BA, PhD, ScD (Camb)
C.Y. Shen BS, MS, PhD (Oregon State)
M. Singh AB, MA (Pun, India), MSc, PhD (Brown)
S.K. Thomason BS (Oregon), PhD (Cornell)
B.S. Thomson BSc (Tor), MA, PhD (Wat)

Professors
T. Archibald BMath (Wat), MA (York), MA, PhD (Tor)
Students interested in a Bachelor of Arts degree in mathematics or should see “Mathematics Program” on page 184 in the Faculty of Arts and Social Sciences section.

Students interested in mathematics may also wish to consider related programs detailed under the section headings applied mathematics, mathematics and computing, mathematical physics, management and systems science, statistics and actuarial science.

Minimum Grade Requirements

Students wishing to register for Department of Mathematics courses must have obtained grades of C- or better, in university level prerequisite courses. Students will not normally be permitted to enrol in any course for which a D grade or lower was obtained in any prerequisite. No student may take, for further credit, any course offered by the Department of Mathematics which is a prerequisite for the course the student has already completed with a grade of C- or higher, without permission of the department.

Major or honors students must satisfy Faculty of Science requirements, general University CGPA, and credit hour requirements.

Computing Recommendation

Some experience with a high level programming language is recommended by the beginning of the second year.

Open Workshops

Some introductory and service courses are organized through the department's open workshops. In addition to regularly scheduled lectures, students registered in these courses are encouraged to come to the workshops for assistance any time during posted working hours. At the workshop students meet with the co-ordinator, teaching assistants and other students, and work together to understand mathematics in a friendly and helpful environment.

Algebra Workshop

MATH 100, 190, 232, MATHM 201 – AQ 4135

Calculus Workshop

MATH 151,152, 251 – AQ 4110

Applied Calculus Workshop

MATH 154,155,157,158 – K 9503

Beginning Level Requirements

Students who do not have the appropriate prerequisites as listed below must successfully complete a mathematics assessment test in order to register in a mathematics course. Entering students who are without the appropriate prerequisites who wish to register in a mathematics course, and who come from outside the Lower Mainland of Vancouver may, with permission of the department, be given a temporary clearance to register. However, by the end of the first week of classes, the student must show proof of successful completion of the mathematics assessment test or the student will be dropped from the course.

Mature students who are unsure of their level of preparation are strongly encouraged to take the mathematics assessment test. The test is delivered at the Burnaby and Vancouver campuses. Contact the Department of Mathematics general office for information.

Students who do not have BC principles of mathematics 11 (or equivalent) with at least a grade of C may take the non-credit basic algebra course offered by the Department of Mathematics. The prerequisites for the first mathematics courses are as follows:

MATH 100, 113,190

BC principles of mathematics 11 (or equivalent) with a grade of at least C or permission of the department or the non-credit course, basic algebra

MATH 157

BC principles of mathematics 12 (or equivalent) with a grade of at least B; or MATH 100 with a grade of at least C-

MATH 151,154

BC principles of mathematics 12 (or equivalent) with a grade of at least B or MATH 100 with a grade of at least C-

Students who are unsure of their level of preparation are strongly encouraged to take the free math assessment test at the algebra workshop, AQ 4135 or SFU Vancouver at Harbour Centre. Students should make certain that they discuss the test results with the appropriate student advisor.

Non-specialist MATH Courses

The following courses are intended to be particularly accessible to students who are not specializing in mathematics: MATH 100, 113, 154, 155, 157, 158, 190, 308 and 380.

Applied Mathematics

Major Program

Applied mathematics traditionally consists of areas of mathematics which are closely related to the physical sciences and engineering, but nowadays sophisticated mathematical tools are used across many disciplines, and applied mathematics has become increasingly computationally oriented.

The Department of Mathematics offers applied mathematics major and honors programs; applied mathematics courses are also excellent choices for students concentrating in other sciences or engineering. Students interested in applied mathematics may also wish to consider the joint honors program in mathematics and computer science, and the mathematical physics honors program, both of which include a substantial number of applied mathematics courses.

Required courses are as follows:

Lower Division Requirements

Students must complete either

CMPT 126-3 Introduction to Computer Science and Programming

or both of

CMPT 120-3 Introduction to Computing Science and Programming I

CMPT 125-3 Introduction to Computing Science and Programming II

and all of

MATH 151-3 Calculus I

MATH 152-3 Calculus II

MATH 232-3 Elementary Linear Algebra

MATH 242-3 Introduction to Analysis I*

MATH 251-3 Calculus III

MATH 252-3 Vector Calculus

PHYS 211-3 Intermediate Mechanics

STAT 270-3 Introduction to Probability and Statistics

and one of

PHYS 120-3 Modern Physics and Mechanics

PHYS 125-3 Mechanics and Special Relativity

and one of

PHYS 121-3 Optics, Electricity and Magnetism

PHYS 126-3 Electricity, Magnetism and Light

Note:

With a grade of C or better in the relevant course, the following substitutions are permitted:

MATH 154 or 157 for MATH 151; MATH 155 or 158 for
MATH 152. However, where possible, students should take MATH 151 and 152. A grade of C- or higher in MATH 242 is required for admission to the Applied Mathematics major and honors programs.

### Upper Division Requirements

- **all of**
  - MATH 316-3 Numerical Analysis I
  - MATH 310-3 Introduction to Ordinary Differential Equations
  - MATH 314-3 Boundary Value Problems
  - MATH 320-3 Introduction to Analysis II
  - MATH 322-3 Complex Variables
  - MATH 418-3 Partial Differential Equations
  - plus at least one of
    - MATH 461-3 Continuous Mathematical Models (or MATH 361)
    - MATH 462-3 Fluid Dynamics
  - plus at least two of
    - MATH 401-3 Introduction to Computer Algebra
    - MATH 416-3 Numerical Analysis II (or MATH 416)
    - MATH 308-3 Linear Optimization
    - MATH 309-3 Continuous Optimization
    - MATH 343-3 Applied Discrete Mathematics
    - MATH 345-3 Introduction to Graph Theory
    - MATH 419-3 Linear Analysis
    - MATH 424-3 Applications of Complex Analysis
    - MATH 425-3 Real Analysis
    - MATH 438-3 Linear Algebra
    - MATH 462-3 Fluid Dynamics
    - MATH 467-3 Dynamical Systems
    - MATH 461-3 Continuous Mathematical Models (or MATH 361)
    - MATH 495-3 Topics in Applied Mathematics
    - PHYS 413-3 Advanced Mechanics
    - STAT 380-3 Introduction to Stochastic Processes

Plus one additional upper division course in MATH or MACM or any pre-approved quantitative upper division course offered by the Faculties of Applied Sciences, Arts, Business Administration or Science. This course, if other than MATH or MACM, must be pre-approved by a department advisor. Students are encouraged to explore the option of taking courses outside the department and to discuss possibilities with a department advisor.

Choices from the third group (“at least two of”) must not include the course used to satisfy the second group (“at least one of”). At least three of the courses used to satisfy the upper division requirements must be at the 400 level.

### Other Requirements

Of the total 120 credit hours required for the major, at least 12 must be taken outside the Faculty of Science including at least six in the Faculty of Arts and Social Sciences. At least 44 of the credit hours must be at the upper division. In the courses used to satisfy the upper division requirements, a grade point average (GPA) of at least 2.00 is required. In addition, University regulations require a cumulative GPA of at least 2.00 and an upper division GPA of at least 2.00. These averages are computed on all courses taken at the University.

### Applied Mathematics Honors Program

#### Lower Division Requirements

- Students must complete either CMPT 126-3 Introduction to Computer Science and Programming or both of
  - CMPT 120-3 Introduction to Computing Science and Programming I
  - CMPT 125-3 Introduction to Computing Science and Programming II

and all of CMPT 225-3 Mechanics and Special Relativity
- MACM 202-3 Mathematical Modeling and Computation
- MATH 151-3 Calculus I
- MATH 152-3 Calculus II
- MATH 232-3 Elementary Linear Algebra
- MATH 242-3 Introduction to Analysis I
- MATH 251-3 Calculus III
- MATH 252-3 Vector Calculus
- PHYS 125-3 Mechanics and Special Relativity
- PHYS 126-3 Electricity, Magnetism and Light
- PHYS 211-3 Intermediate Mechanics
- STAT 270-3 Introduction to Probability and Statistics

**Note:** With a grade of C or better in the relevant course, the following substitutions are permitted: MATH 154 or 157 for MATH 151; MATH 155 or 158 for MATH 152. However, where possible, students should take MATH 151 and 152. A grade of C- or higher in MATH 242 is required for admission to the Applied Mathematics major and honors programs.

### Upper Division Requirements

- **all of**
  - MATH 310-3 Introduction to Ordinary Differential Equations
  - MATH 314-3 Boundary Value Problems
  - MATH 320-3 Introduction to Analysis II
  - MATH 322-3 Complex Variables
  - MATH 418-3 Partial Differential Equations
  - plus at least one of
    - MATH 461-3 Continuous Mathematical Models (or MATH 361)
    - MATH 462-3 Fluid Dynamics
  - plus at least one of
    - MATH 416-3 Numerical Analysis II (or MATH 416)
    - MATH 467-3 Dynamical Systems
  - plus at least six additional courses chosen from
    - MATH 401-3 Introduction to Computer Algebra
    - MATH 416-3 Numerical Analysis II (or MATH 416)
    - MATH 308-3 Linear Optimization
    - MATH 309-3 Continuous Optimization
    - MATH 343-3 Applied Discrete Mathematics
    - MATH 345-3 Introduction to Graph Theory
    - MATH 419-3 Linear Analysis
    - MATH 424-3 Applications of Complex Variables
    - MATH 425-3 Real Analysis
    - MATH 438-3 Linear Algebra
    - MATH 461-3 Continuous Mathematical Models (or MATH 361)
    - MATH 495-3 Topics in Applied Mathematics
    - PHYS 413-3 Advanced Mechanics
    - STAT 380-3 Introduction to Stochastic Processes

Plus one additional upper division course in MATH or MACM or any pre-approved quantitative upper division course offered by the Faculties of Applied Sciences, Arts, Business Administration or Science. This course, if other than MATH or MACM, must be pre-approved by a department advisor. Students are encouraged to explore the option of taking courses outside the department and to discuss possibilities with a department advisor.

Choices from the third group (“at least two of”) must not include the course used to satisfy the second group (“at least one of”). At least three of the courses used to satisfy the upper division requirements must be at the 400 level.

### Other Requirements

- Students must complete core requirements, group A requirements, and group B requirements.

#### Core Requirements

- The core requirements, as set out below, are common to all students (see Core Requirements below).

#### Group A Area Requirements

- Students choose one discipline from the following areas: continuous mathematics, discrete mathematics, or industrial statistics.

#### Curriculum for the group A area requirement is listed below (see Group A Requirements).

#### Group B Area Requirements

- Students choose one of the following areas: biological sciences, chemistry, computing science, earth sciences, engineering science, or physics (see Group B Requirements).

With one exception, students will complete a minor in one of the above group B areas. Accordingly, students must be accepted into the minor program of the relevant department or school. The exception is engineering science. For this discipline, students will complete a prescribed curriculum (shown below) instead of completing a minor program, and must meet the same grade point average requirement as that which is required of students in the Basic program in the School of Engineering Science.

Note that admission to the computing science minor program is highly competitive. See “Admission Requirements” on page 127.

#### Group A and B Combinations

- Students should seek advice about which disciplines among groups A and B suit their career goals. The following area requirement combinations are expected to be the more applicable ones for industry.
  - industrial statistics and biology
  - continuous mathematics and chemistry
  - discrete mathematics and computing science
  - discrete mathematics and engineering science
  - continuous mathematics and earth sciences
  - continuous mathematics and engineering science
  - continuous mathematics and physics
Second Bachelor’s Degree
If the industrial mathematics major is taken as part of a second bachelor’s degree, then the group B requirement may be waived if the student’s previous degree contains an approved major. Approvals will be given on an individual basis and those majors that are approved will not be limited to the five disciplines listed in group B.

Core Requirements
Lower Division Core Requirements
Students must complete one of
CMPT 101-4 Introduction to Computer Programming
CMPT 104-2 Computer Programming
plus all of
CMPT 201-4 Data and Program Abstraction
MACM 101-3 Discrete Mathematics I
MACM 201-3 Discrete Mathematics II
MACM 202-4 Mathematical Modeling and Computation
MATH 151-3 Calculus I
MATH 152-3 Calculus II
MATH 232-3 Elementary Linear Algebra
MATH 251-3 Calculus III
STAT 270-3 Introduction to Probability and Statistics

Upper Division Core Requirements
Students must complete all of
MATH 310-3 Introduction to Differential Equations
MATH 322-3 Complex Variables
MATH 402-4 Industrial Mathematics
STAT 330-3 Introduction to Statistical Inference
plus two of
MATH 314-3 Boundary Value Problems
MATH 343-3 Applied Discrete Mathematics (or 308)
STAT 340-3 Statistical Quality Control (or 380)
plus two of
CMPT 305-3 Computer Simulation and Modeling
CMPT 307-3 Data Structures and Algorithms
MACM 316-3 Numerical Analysis I

Group A Requirements
Students must fulfill the requirements for one of the following three options.

Continuous Mathematics
Students must complete all of
MACM 316-3 Numerical Analysis I
MATH 252-3 Vector Calculus
MATH 314-3 Boundary Value Problems
MATH 418-3 Partial Differential Equations
plus one of
MATH 309-3 Continuous Optimization
MATH 313-3 Differential Geometry
MATH 320-3 Advanced Calculus of One Variable
plus one of
MATH 415-3 Ordinary Differential Equations
MATH 416-3 Numerical Analysis II
MATH 462-3 Fluid Dynamics
MATH 467-3 Vibrations
MATH 470-3 Variational Calculus

Discrete Mathematics
Students must complete all of
CMPT 307-3 Algorithms and Data Structures
MATH 308-3 Linear Programming
MATH 343-3 Applied Discrete Mathematics
plus two of
MATH 443-3 Combinatorial Theory
MATH 445-3 Graph Theory
MATH 447-3 Coding Theory

Industrial Statistics
Students must complete all of
STAT 340-3 Statistical Quality Control
STAT 350-3 Linear Models in Applied Statistics II
STAT 430-3 Statistical Design and Analysis of Experiments
plus one of
STAT 402-3 Generalized Linear and Non-linear Modeling
STAT 410-3 Statistical Analysis of Sample Surveys
STAT 420-3 Non-Parametric Statistics
STAT 450-3 Statistical Theory
STAT 460-3 Bayesian Statistics

It is recommended that students also complete STAT 280.

Group B Requirements
Students must fulfill the requirements for a minor in one of the following areas:
- biological sciences
- chemistry
- computing science
- earth sciences
- physics

Refer to the relevant department or school for curriculum requirements.

Engineering Science
An alternative to completing a minor in the above-mentioned areas is to complete the following prescribed curriculum in engineering science.

one of
CMPT 150-3 Introduction to Computer Design
ENSC 150-3 Introduction to Computer Design
plus all of
ENSC 151-2 Digital and Computer Design Laboratory
ENSC 220-3 Electric Circuits I
PHYS 120-3 Modern physics and Mechanics
PHYS 121-3 Optics, Electricity and Magnetism
PHYS 131-2 General Physics Laboratory B
plus two of
ENSC 320-3 Electric Circuits II
ENSC 327-3 Communications Systems
ENSC 380-3 Linear Systems
ENSC 383-4 Feedback Control Systems
plus one of
ENSC 429-4 Discrete-Time Systems
ENSC 483-4 Modern Control Systems
ENSC 488-4 Introduction to Robotics
PHYS 484-3 Nonlinear Physics
plus one more upper division ENSC course.

Students who choose a discipline (e.g. complete a minor program) other than engineering science should seek approval for their minor from the relevant department or school.

If the computing science minor is chosen to satisfy the group B requirement, then CMPT 275, 305, 307 and MACM 316 must be included in the overall program. Further, the upper division courses used for the minor should not overlap with the courses used to satisfy the core requirements set out above.

Honors Program
Students must satisfy the requirements for the major program, and complete additional course work (see below) for a total of 132 credit hours.
- Students must complete at least 48 upper division credit hours in MACM, MATH, and STAT courses (excluding STAT 301, 302, 403)
- Take additional courses to total at least 60 upper division credit hours

Students must also complete all of
CMPT 395-3 Computer Simulation and Modeling
CMPT 307-3 Data Structures and Algorithms
MACM 316-3 Numerical Analysis I
MATH 314-3 Boundary Value Problems
MATH 343-3 Applied Discrete Mathematics (or 308)
STAT 340-3 Statistical Quality Control (or 380)

Co-operative Education
Students in the Industrial Mathematics Program are encouraged to enter co-operative education, a program which integrates work experience with academic study. The advantage of augmenting academic studies with co-op work/study has been strongly endorsed by representatives from industry.

To obtain a co-op designation for the degree, students are required to complete four co-op work terms while completing the academic requirements for the degree.

Students are strongly advised to complete two consecutive work terms after completing 85 credit hours for the major.

For further details, see “Co-operative Education” on page 240.

Mathematics Major and Honors Programs
Lower Division Requirements
Students must complete either
CMPT 126-3 Introduction to Computer Science and Programming
or both of
CMPT 120-3 Introduction to Computing Science and Programming I
CMPT 125-3 Introduction to Computing Science and Programming II
and all of
MACM 101-3 Discrete Mathematics I
MACM 201-3 Discrete Mathematics II
MACM 202-4 Mathematical Modeling and Computation
MATH 151-3 Calculus I
MATH 152-3 Calculus II
Math 232-3 Elementary Linear Algebra
MATH 242-3 Introduction to Analysis I
MATH 251-3 Calculus III
STAT 270-3 Introduction to Probability and Statistics

Note: With a C grade or better in the relevant course, these substitutions are permitted: MATH 154 or 157 for MATH 151, MATH 155 or 158 for MATH 152.

However, where possible, students should take MATH 151 and 152. A grade of C+ or higher in MATH 242 is required for admission to the mathematics major or honors programs.

Upper Division Requirements
All students must take at least one from each of the following four groups of courses.
one of
MATH 308-3 Linear Optimization
MATH 343-3 Applied Discrete Mathematics
MATH 345-3 Introduction to Graph Theory
and one of
MATH 320-3 Introduction to Analysis II
MATH 322-3 Complex Variables
and one of
MATH 332-3 Introduction to Applied Algebraic Systems
MATH 342-3 Elementary Number Theory
and one of
MATH 310-3 Introduction to Ordinary Differential Equations
MACM 316-3 Numerical Analysis I

BSc mathematics major students must obtain at least 30 credit hours in upper division mathematics (MATH), or mathematics/computing science (MACM), or PHYS 413, or from the following list of statistics (STAT) and actuarial mathematics (ACMA) courses:
ACMA 310, STAT 330, 350, 380, 402, 403, 450 and 460.
Of the 30 credit hour minimum total requirement for the mathematics major, at least 24 must come from MATH or MACM courses. At least three of the courses used to satisfy this 30 credit hour requirement must be at the 400 division level, of which at least two must be 400 division MATH or MACM courses. Students may not use a directed studies, job practicum, or honors essay course to fulfill the 400 division requirement.

Honors Program Specific Requirements

In addition to the requirements for the major program, honors students must take CMPT 225 and MATH 252 and obtain at least 18 additional credit hours in upper division mathematics (MATH), or mathematics/computing science (MACM) courses, PHYS 413, or from the list of approved STAT and ACMA courses listed under Upper Division Requirements for the Mathematics Major Program. Of this minimum 48 upper division credit hours, at least 36 must come from MATH or MACM courses.

At least five of the courses used to satisfy the 48 credit hour requirement must be at the 400 division level, of which at least three must be 400 division MATH or MACM courses. Students may not use a directed studies, job practicum or honors essay course to fulfill the 400 division requirement.

Note: Major or honors mathematics students are advised to take an upper division statistics course and an upper division MACM or CMPT course.

Major and Honors Program Electives

Students must obtain at least six credit hours in courses offered by the Faculty of Science outside the Department of Mathematics and the Department of Statistics and Actuarial Science. Students must obtain at least six credit hours in Faculty of Arts and Social Sciences courses. The two required CMPT courses and the six credit hour requirement in Faculty of Arts and Social Sciences courses fulfill the Faculty of Science requirement that students take 12 credit hours from outside the Faculty of Science.

Major program students must complete at least 44 upper division credit hours, including the requirements for the major. Honors program students must complete at least 60 upper division credit hours, including the requirements for honors.

Mathematics Minor Program

Students completing a minor in mathematics are subject to the general regulations of the faculty in which they are registered. Students normally are required by the Department of Mathematics to:

i) obtain at least 12 mathematics credit hours (MATH 100 or 190 may not be included) or mathematics/computing science (MACM) courses numbered 101-299 inclusive. These courses normally will include MATH 151 (or 154 or 157), 152 (or 155 or 158), and 232.

ii) obtain at least 15 credit hours of upper division mathematics (MATH), or mathematics/computing science (MACM).

Mathematics and Computing Science Honors Program

This honors program is offered jointly by the Department of Mathematics and the School of Computing Science; entry requires permission of both. Graduates may proceed to graduate work in either mathematics or computing science. (Depending on the student's area of interest, a small amount of additional undergraduate work in either mathematics or computing science may be required.)

Normally, students apply for acceptance upon completion of the lower division requirements. Early acceptance is available for SFU students and transfer students with high CGPs and program related GPs. Direct acceptance is also possible for secondary school students with strong admission GPs.

Students must complete 132 credit hours, as specified below.

Lower Division Requirements

Students must complete either

CMPT 126-3 Introduction to Computer Science and Programming
or both of

CMPT 120-3 Introduction to Computing Science and Programming I
CMPT 125-3 Introduction to Computing Science and Programming II

and all of

CMPT 150-3 Introduction to Computer Design
CMPT 225-3 Data Structures and Programming
CMPT 250-3 Introduction to Computer Architecture
CMPT 275-4 Software Engineering
MACM 101-3 Discrete Mathematics I
MACM 201-3 Discrete Mathematics II
MACM 202-4 Mathematical Modeling and Computation
MATH 151-3 Calculus I
MATH 152-3 Calculus II
MATH 232-3 Elementary Linear Algebra
MATH 242-3 Introduction to Analysis
MATH 251-3 Calculus III

PHIL 100-3 Knowledge and Reality*
STAT 270-3 Introduction to Probability and Statistics
* 100 division English course or PHIL 120 may be substituted

Note 1: A student who, in satisfaction of upper division requirements (see below), wishes to use group e) as one of the two upper division required groups taken from the list a), b), c), d), e) must also obtain credit for the lower division course MATH 252.

Note 2: A student wishing to use courses from group a) to satisfy requirements is advised that STAT 280 is a prerequisite for STAT 380.

Upper Division Requirements

Students must complete all of

MACM 316-3 Numerical Analysis I
CMPT 307-3 Data Structures and Algorithms
CMPT 354-3 Database Systems I
CMPT 405-3 Design and Analysis of Computing Algorithms

plus one of

MATH 308-3 Linear Programming
MATH 343-3 Applied Discrete Mathematics
• the required courses in two of the groups a), b), c), d), e) below and in two of the groups f), g), h), i), j) below.
• additional courses as required taken from any of the lists a) - k) below or bring the total upper division credits in MATH or STAT to at least 25 and the total credits in upper division CMPT to at least 25 where, for this purpose, credit obtained in MACM courses is divided evenly between MATH and CMPT.
• the Social Aspects of Computing requirement of the computing science major and honors program
• additional courses as required to bring the total number of upper division credits to at least 60.

a) Statistics

Required courses

STAT 330-3 Introduction to Mathematical Statistics
STAT 350-3 Linear Models in Applied Statistics
STAT 380-3 Introduction to Stochastic Processes

Other courses

STAT 402-3 Generalized Linear and Nonlinear Modelling
STAT 450-3 Statistical Theory
STAT 460-3 Bayesian Statistics

b) Discrete Mathematics

Required courses

MATH 308-3 Linear Optimization
MATH 343-3 Applied Discrete Mathematics
and one of

MATH 443-3 Combinatorial Theory
MATH 445-3 Graph Theory
c) Algebra

Required courses

MATH 332-3 Introduction to Applied Algebraic Systems
and one of

MATH 401-3 Introduction to Computer Algebra
MATH 438-3 Linear Algebra
MATH 439-3 Algebraic Systems
MATH 440-3 Galois Theory
MATH 447-3 Coding Theory
d) Numerical Analysis

Required courses

MATH 310-3 Introduction to Ordinary Differential Equations
MATH 416-3 Numerical Analysis II
e) Applied Mathematics

Required course

MATH 310-3 Introduction to Ordinary Differential Equations
and two of

MATH 314-3 Boundary Value Problems
MATH 415-3 Ordinary Differential Equations
MATH 418-3 Partial Differential Equations
MATH 462-3 Fluid Mechanics
MATH 470-3 Variational Calculus

f) Computer Graphics and Multimedia

Required course

one of

CMPT 361-3 Introduction to Computer Graphics
CMPT 363-3 User Interface Design
CMPT 365-3 Multimedia Systems

Other courses

CMPT 461-3 Advanced Computer Graphics
CMPT 466-3 Animation
CMPT 469-3 Special Topics in Computer Graphics
g) Computing Systems

Required course

one of

CMPT 300-3 Operating Systems I
CMPT 371-3 Data Communications and Networking

Other courses

CMPT 400-3 High Performance Computer Architecture
CMPT 401-3 Operating Systems II
CMPT 471-3 Networking II
CMPT 479-3 Special Topics in Computing Systems
CMPT 499-3 Special Topics in Computer Hardware

h) Programming Languages and Software

Required course

one of

CMPT 379-3 Principles of Compiler Design
CMPT 383-3 Comparative Programming Languages
CMPT 384-3 Symbolic Computing

Other courses

CMPT 475-3 Software Engineering II
CMPT 481-3 Functional Programming
CMPT 487-3 Software Engineering Tools and Environments
CMPT 489-3 Special Topics in Programming Languages

i) Information Systems

Required course

one of

CMPT 301-3 Information Systems Management
CMPT 370-3 Information System Design
CMPT 454-3 Database Systems II
CMPT 459-3 Special Topics in Database Systems
Other courses
CMPT 470-3 Web-based Information Systems

j) Artificial Intelligence
Required course
One of
CMPT 310-3 Artificial Intelligence Survey
CMPT 412-3 Computational Vision
CMPT 413-3 Computational Linguistics
CMPT 417-3 Intelligent Systems

Other courses
CMPT 411-3 Knowledge Representation
CMPT 414-3 Model Based Computer Vision
CMPT 419-3 Special Topics in Artificial Intelligence

k) Theoretical Computing Science
CMPT 308-3 Computability and Complexity
CMPT 406-3 Computational Geometry
CMPT 407-3 Computational Complexity
CMPT 408-3 Theory of Computer Networks/Communications
CMPT 409-3 Special Topics in Theoretical Computing Science
MACM 300-3 Introduction to Formal Languages and Automata with Applications

General Requirements
The program is subject to Faculty of Science and University general regulations. Admission to courses and prerequisites are subject to departmental requirements. Admission to and continuation in the program requires an overall GPA of at least 3.00.

Mathematical Physics Honors Program
This program, offered jointly with the Department of Physics, consists of theoretical and laboratory physics and applied and pure mathematics courses. See “Mathematical Physics Honors Program” on page 234.

Co-operative Education
Students are encouraged to enter co-operative education which integrates work experience with academic study. For further details, see “Co-operative Education” on page 240.

Students should contact the mathematical sciences co-op coordinator at 604.291.4123, K10558, for admission requirements and information.

Department of Molecular Biology and Biochemistry
8166 South Science Building, 604.291.5630 Tel, 604.291.5583 Fax, www.sfu.ca/mbb

Chair
B.P. Brandhorst AB (Harv), PhD (Calif)

Professors Emeriti
R.J. Cushey BSc, MSc, PhD (Alta)
W.R. Richards AB, PhD (Calif)
M.J. Smith BSc (St Mary’s, Calif), PhD (Br Col)

Professors
D.L. Bailie BSc, MSc (Br Col), PhD (Conn), Canada Research Chair
B.P. Brandhorst AB (Harv), PhD (Calif)
R.B. Cornell BS (Houghton), PhD (Penn)*
W.S. Davidson BSc (Edin), PhD (Qu)
B.M. Honda BSc (McM), PhD (Br Col)

J.K. Scott AB (Occidental), MD (St Louis), PhD (Missouri), Canada Research Chair
D. Sen BA (Camb), MPhil, PhD (Yale)*

Associate Professors
N. Harden BSc (Br Col), PhD (Camb)
L.M. Quarry BSc (Br Col), MSc (Br Col), PhD (Conn)
J.J. Thewealt BSc, PhD (S Fraser)**

Assistant Professors
C.T. Beh BSc, MSc (Calg), PhD (Prin)
F.S.L. Brinkman BSc (Wat), PhD (Ott)
L. Craig BSc (Br Col), MSc, PhD (S Fraser)
N.C. Hawkins BSc, MSc (Calg), PhD (Prin)
M.R. Leroux BSc (MoU), PhD (Br Col)
M.W. Paetzel BSc (Syr), BSc (Minn), PhD (Ohio State)
F.F. Pio BSc, MSc (C Ferrand), PhD (Lille)
P.J. Unrau BSc (McM), PhD (MIT)
E.M. Verheyen BA (Cornell), MPhil, PhD (Yale)
E.C. Young BSc (Tor), PhD (Brandeis)

Adjunct Professors
T.J. Borgford BSc, PhD (Manit)
S. Jones BSc (Brst), MSc (S Fraser), PhD (Sanger)
M. Marna BSc, PhD (S Fraser)
F. Quellette BSc (McG), MSc (Calg)
E. Stringham BSc, MSc (Manit), PhD (Br Col)

Associated Faculty
E.A. Accili, Kinesiology
A.T. Beckenbach, Biological Sciences
A.J. Bennet, Chemistry
N.R. Branda, Chemistry
F. Breden, Biological Sciences
E. Emberley, Physics
N.H. Haunerland, Biological Sciences
C. Krieger, Kinesiology
P.C.H. Li, Chemistry
L. Lowenberger, Biological Sciences
M.M. Moore, Biological Sciences
B.M. Pinto, Chemistry
E. Pietrout, Chemistry
G.F. Tibbits, Kinesiology
D. Vocadlo, Chemistry

Lecturers
I.V. Kovalyova MA (Brown), PhD (Qu)
I.C. Northwood BA (Vermont), PhD (Mass)
D.A. Sinclair BSc, MSc (Manit), PhD (Br Col)

*joint appointment with chemistry
**joint appointment with physics

Advisor
Dr. I.C. Northwood BA (Vermont), PhD (Mass), 7151 South Science Building, 604.291.3536, inorthwo@sfu.ca

Major, minor and honors in molecular biology and biochemistry are offered by the Faculty of Science. Entry into these programs requires the permission of the department.

Students are encouraged to seek advice from the MBB advisor and declare an intention to major in biochemistry. Entry into these programs requires the permission of the department.

MBB 331-3 Molecular Biology
MBB 322-3 Organic Chemistry
MBB 328-2 Organic Chemistry
MBB 376-2 Organic Chemistry Laboratory II
MBB 377-2 Organic Chemistry Laboratory I
MBB 490, 491, 492, 493, 871, 872, 873 as well as corresponding courses offered by other departments (e.g. BISC 490, 491, 492, 498, 499, 888, 889, 890).

In addition, a student may not take more than a total of 15 credit hours of research and/or reading courses in one semester. If students take more than 18 credit hours of these courses, they may not apply these extra credit hours to the 132 credits required for an honors degree.

Major Program
(120 credit hours)
All students must complete lower and upper division requirements.

Lower Division Core Requirements
(52-53 credit hours)
Students must complete all of
BISC 101-4 Introduction to Biology
BISC 102-4 Introduction to Biology
BISC 202-3 Genetics
CHEM 121-4 General Chemistry and Laboratory I
CHEM 122-2 General Chemistry II
CHEM 215-4 Introduction to Analytical Chemistry
CHEM 281-4 Organic Chemistry I
CHEM 282-2 Organic Chemistry II
CHEM 296-2 Organic Chemistry Laboratory II
MBB 221-3 Cell Biology and Biochemistry
MBB 222-3 Molecular Biology and Biochemistry
and one of
CMPT 101-4 Introduction to Computer Programming
CMPT 102-3 Introduction to Scientific Computer Programming
CMPT 110-3 Event-Driven Programming in Visual Basic

and one of
MATH 151-3 Calculus I
MATH 154-3 Calculus I for the Biological Sciences
and one of
MATH 152-3 Calculus II
MATH 155-3 Calculus II for the Biological Sciences
and one of
PHYS 101-3 General Physics I
PHYS 120-3 Modern Physics and Mechanics
and one of
PHYS 102-3 General Physics II
PHYS 121-3 Optics, Electricity and Magnetism

Upper Division Core Requirements
(24 credit hours)
Students must complete all of
MBB 308-3 Molecular Biology and Biochemistry Laboratory I
MBB 309-3 Molecular Biology and Biochemistry Laboratory II
MBB 321-3 Intermediary Metabolism
MBB 322-3 Molecular Physiology
MBB 331-3 Molecular Biology
MBB 432-3 Advanced Molecular Biology Techniques
and one of
CHEM 360-3 Chemical Kinetics and Thermodynamics
MBB 323-3 Introduction to Physical Biochemistry
Molecular Biology and Biochemistry Lower Division Requirements

Students must complete all of
BISC 101-4 General Biology
BISC 102-4 General Biology
BISC 202-3 Genetics
CHEM 121-4 General Chemistry and Laboratory I
CHEM 122-2 General Chemistry and Laboratory II
CHEM 281-4 Organic Chemistry I
CHEM 282-2 Organic Chemistry II
MBB 221-3 Cell Biology and Biochemistry
MBB 222-3 Molecular Biology and Biochemistry

Students are strongly encouraged to take CHEM 286.

Computing Science Lower Division Requirements

Students must complete
CMPT 126-3 Introduction to Computing Science and Programming
or both of
CMPT 120-3 Introduction to Computing Science and Programming I
CMPT 125-3 Introduction to Computing Science and Programming II
and all of
CMPT 150-3 Introduction to Computer Design
CMPT 253-5 Data Structures and Programming
CMPT 275-4 Software Engineering
MACM 101-3 Discrete Mathematics I
MACM 201-3 Discrete Mathematics II
MATH 232-3 Elementary Linear Algebra

Upper Division Requirements

(48 credit hours)

STAT 302-3 Analysis of Experimental and Observational Data

Molecular Biology and Biochemistry Upper Division Requirements

Students must complete all of
MBB 308-3 Molecular Biology and Biochemistry Laboratory I
MBB 321-3 Intermediary Metabolism
MBB 331-3 Molecular Biology
MBB 441-3 Bioinformatics
plus at least two additional 400 division MBB courses.

plus at least two additional 400 division MBB courses. The following courses are suggested.

MBB 423-3 Protein Structure and Function
MBB 435-3 Genomic Analysis
MBB 442-3 Proteomics

Computing Science Upper Division Requirements

CMPT 307-3 Data Structures and Algorithms
CMPT 320-3 Social Implications of a Computerized Society
CMPT 341-3 Introduction to Computational Biology
CMPT 354-3 Database Systems and Structures
MACM 316-3 Numerical Analysis
plus two courses from
CMPT 300-3 Operating Systems
CMPT 305-3 Computer Simulation and Modeling
CMPT 310-3 Artificial Intelligence Survey
CMPT 340-3 Computers in Biomedicine
CMPT 361-3 Introduction to Computer Graphics
CMPT 363-3 User Interface Design

plus at least two 400 division CMPT courses. The following are suggested.

CMPT 405-3 Design and Analysis of Computing Algorithms
CMPT 413-3 Computational Linguistics
CMPT 419-3 Special Topics in Artificial Intelligence
CMPT 454-3 Database Systems II

Students are encouraged to enrol in the Co-operative Education program.

Honors Program

(132 credit hours)

Admission to this program requires a minimum 3.0 CPA, 3.0 upper division GPA, and permission of the molecular biology and biochemistry department. In addition to the major program requirements, MBB honors complete one of the following individual study semester options.

either
MBB 493-15 Individual Study Semester (Option B)
or both of
MBB 491-5 Undergraduate Research
MBB 492-10 Individual Study Semester (Option A)**

**This may be accomplished by breaking the individual study semester project into two consecutive semesters. If MBB 491 has already been taken to satisfy the major program requirements, then students must complete one other course selected from the appropriate list, in addition to MBB 492, to satisfy honors requirements.

Students must take 12 credit hours outside the Faculty of Science (including six hours in the Faculty of Arts and Social Sciences, but excluding EDUC 401 to 406) and at least 60 upper division credit hours. See "Requirements for Major" on page 213.

Joint Major in Computing Science and Molecular Biology and Biochemistry

The School of Computing Science and the Department of Molecular Biology and Biochemistry co-operate in offering this joint major program.

The student registration, appeals, and graduation processing are handled by either the School of Computing Science in the Faculty of Applied Sciences or the Department of Molecular Biology and Biochemistry in the Faculty of Science.

Lower Division Requirements

(72 credit hours, or 75 credit hours if CMPT 120 and 125 are taken)

Students must complete
MATH 151-3 Calculus I
MATH 152-3 Calculus II
PHYS 101-3 General Physics I
PHYS 102-3 General Physics II
PHYS 120-3 Modern Physics and Mechanics
plus one of
PHYS 101-3 General Physics I
PHYS 120-3 Modern Physics and Mechanics
plus one of
PHYS 102-3 General Physics II
PHYS 121-3 Optics, Electricity and Magnetism

and one of
MATH 310-3 Introduction to Ordinary Differential Equations
STAT 201-3 Statistics for the Life Sciences

STAT 270-3 Introduction to Probability and Statistics

Students must complete a minimum of four courses from the following list, which must include a minimum of one of the courses indicated by # and a minimum of one of the courses indicated by *.

There is no upper limit on the quantity of courses in the following list that a student can complete.

MBB 402-3 Molecular Genetics
MBB 403-3 Physical Biochemistry
MBB 412-4 Enzymology

MBB 420-3 Special Topics in Biochemistry
MBB 421-3 Nucleic Acids#
MBB 422-3 Biomembranes#
MBB 423-3 Protein Structure and Function#

MBB 426-3 Immunology
MBB 435-3 Genomic Analysis*
MBB 436-3 Gene Expression

MBB 437-3 Selected Topics in Signal Transduction
MBB 438-3 Human Molecular Genetics

MBB 440-3 Special Topics in Molecular Biology
MBB 441-3 Bioinformatics*
MBB 442-3 Proteomics*

MBB 443-3 Protein Biogenesis and Degradation#

In addition to the above, students must complete enough electives to bring their total number of credits to 120. Of these 120 credits,

• 44 must be upper division

• 12 must be from outside the Faculty of Science, fulfilled as follows: six credit hours from the Faculty of Arts and Social Sciences (excluding EDUC 401-406); at least three CMPT credit hours (lower division core requirements fulfill this requirement by stipulating that students take one of CMPT 102 or 110); three credit hours of electives (note that Faculty of Applied Sciences courses, including kinesiology courses, may be used).

In addition, students should consult the Bachelor of Science regulations in Faculty of Science. See "Requirements for Major" on page 213.

Although many variations are possible, those with BC high school chemistry 12, mathematics 12 and physics 12 (or equivalents) might take the following typical program.

Levels 1 and 2
BISC 101-4 and 102-4
CHEM 121-4, 122-2 and 281-4
MATH 151-3 and 152-3
PHYS 120-3 and 121-3

Total 30 credit hours

Levels 3 and 4
BISC 202-3
CHEM 126-2, 282-2, 286-2 and 215-4
CMPT 102-3 or 110-3
MBB 221-3 and 222-3

6 hours of electives

Total 28-29 credit hours

Levels 5 and 6
MBB 331-3
CHEM 360-3 or MBB 323-3
MATH 310-3 or STAT 201-3 or STAT 270-3
MBB 308-3, 309-3, 321-3 and 322-3
MBB 422-3

9 hours of electives

Total 33 credit hours

Levels 7 and 8
15-18 credit hours
11-16 credit hours of electives

Total 29-31 credit hours

Simon Fraser University 2005 • 2006
Joint Major in Molecular Biology and Biochemistry and Business Administration

This program offers in-depth combined training that is pertinent to development and administration in emergent biotechnology enterprises. Molecular biology and biochemistry form the scientific and technological underpinnings of today's burgeoning biotechnology field while business administration teaches fundamentals of economics, management, marketing, investment and business law.

Students will take most of the required courses in both the Department of Molecular Biology and Biochemistry (MBB) and the Faculty of Business Administration (FBA). Upon program completion, students will graduate with a bachelor of science degree from the Faculty of Science.

The program requires 70 credit hours in MBB related courses and 52 credit hours in BUS related courses; there is little flexibility in curriculum scheduling.

Students are strongly encouraged to participate in the Co-operative Education Program in which practical rotations in MBB and FBA will be available.

Lower Division Molecular Biology and Biochemistry Requirements

Students must complete all of:
- BISC 101-4 General Biology
- BISC 102-4 General Biology
- BISC 202-3 Genetics
- CHEM 121-4 General Chemistry and Laboratory I
- CHEM 122-2 General Chemistry II
- CHEM 126-2 General Chemistry Laboratory II
- CHEM 281-4 Organic Chemistry I
- CHEM 282-2 Organic Chemistry II
- MBB 221-3 Cellular Biology and Biochemistry
- MBB 222-3 Molecular Biology and Biochemistry
- and one of MATH 151-3 Calculus I
- MATH 154-3 Calculus I for the Biological Sciences
- and one of MATH 152-3 Calculus II
- MATH 155-3 Calculus II for the Biological Sciences
- and one of PHYS 101-3 General Physics I
- PHYS 120-3 Modern Physics and Mechanics
- and one of PHYS 102-3 General Physics II
- PHYS 121-3 Optics, Electricity and Magnetism

Students are strongly encouraged to take CHEM 286.

Lower Division Business Administration Requirements

Students must complete all of:
- BUS 251-3 Financial Accounting I
- BUS 254-3 Managerial Accounting I
- BUS 272-3 Behavior in Organizations
- ECON 103-3 Principles of Microeconomics
- ECON 105-3 Principles of Macroeconomics
- and one of BUS 374-3 Organization Theory
- BUS 381-3 Introduction to Human Resource Management

Joint Honors in Molecular Biology and Biochemistry and Business Administration

(132-133 credit hours)

Students must meet the criteria specified by each program (i.e., MBB and FBA) for entering an honors program, and must seek the permission of the MBB department. In addition to the major program requirements, MBB/Business joint honors students will complete both of six credits of 400 division BUS or BU/EUC courses beyond those required for the joint major, and a minimum of six credits of research-related MBB courses, which can be fulfilled with MBB 496-6.

Minor Program

(56-60 credit hours minimum)

Lower Division Requirements

Students must complete all of:
- BISC 101-4 General Biology
- MBB 209-3 Molecular Biology and Biochemistry Laboratory II
- MBB 309-3 Molecular Biology and Biochemistry Laboratory II
- MBB 321-3 Intermediary Metabolism
- MBB 322-3 Molecular Physiology
- MBB 331-3 Molecular Biology
- MBB 432-3 Advanced Molecular Biology Techniques and one of MBB 423-3 Protein Structure and Function
- MBB 426-3 Immunology
- MBB 435-3 Genomic Analysis

Upper Division Business Administration Requirements

BUS 303-3 Business, Society and Ethics
- BUS 312-4 Introduction to Finance
- BUS 336-4 Data and Decisions II
- BUS 343-3 Introduction to Marketing
- BUS 360-3 Business Communication
- BUS 393-3 Commercial Law
- BUS 477-4 New Venture Planning
- and one of BUS 347-3 Consumer Behavior
- another marketing course
- and one of BUS 374-3 Organization Theory
- BUS 381-3 Introduction to Human Resource Management

Cumulative Grade Point Average Requirement

To be approved in an MBB minor program, students must meet the same criteria as is required for the MBB major program with the exception of BISC 202 which is not required for an MBB minor.

Upper Division Requirements

(14-18 credit hours)

Students must complete five upper division MBB courses (plus any lower division prerequisites) excluding MBB 492 and 493.

Co-operative Education Program

Molecular biology and biochemistry majors and minors may apply to the science co-operative education program which includes up to five work semesters during the normal academic program. See “Co-operative Education” on page 240.

Physical Geography Program

7123 Robert C. Brown Hall, 604.291.3321 Tel, 604.291.5841 Fax, www.sfu.ca/geography
Advisor
Ms R. Multani, 7126 Robert C. Brown Hall, 604.291.4529

See “Department of Geography” on page 171 for a complete list of faculty.

The Department of Geography offers a program within the Faculty of Science leading to a bachelor of science degree with a major or honors in physical geography. Students interested in a bachelor of arts in geography should page 171 in the Faculty of Arts and Social Sciences section. Requirements for the bachelor of science in physical geography are set out below. Students should contact the advising committee to plan the course work for recommended options: biogeography, climatology or geomorphology.

Major Program

Lower Division Requirements

(totai required hours 52)

Required Geography Courses
- GEOG 100-3 Human Geography
- GEOG 111-3 Physical Geography
- two of GEOG 213-3 Geomorphology I
- GEOG 214-3 Climatology I
- GEOG 215-3 Biogeography
- GEOG 221-3 Economic Geography
- GEOG 241-3 Social Geography
- GEOG 250-3 Cartography I
- GEOG 253-3 Aerial Photographic Interpretation
- GEOG 255-3 Geographical Information Science I

Minor Program

(18 credit hours)

Required Faculty of Science Courses
- BISC 101-4 General Biology
- BISC 102-4 General Biology
- CHEM 121-4 General Chemistry and Laboratory I
- CHEM 122-2 General Chemistry II
- EASC 101-3 Physical Geography
- PHYS 103-3 General Physics I
- PHYS 102-3 General Physics II
- EASC 101-3 Physical Geography
- PHYS 103-3 General Physics I
- PHYS 102-3 General Physics II

Required Faculty of Science Courses
- BISC 101-4 General Biology
- BISC 102-4 General Biology
- CHEM 121-4 General Chemistry and Laboratory I
- CHEM 122-2 General Chemistry II
- EASC 101-3 Physical Geography
- PHYS 103-3 General Physics I
- PHYS 102-3 General Physics II
- PHYS 130-2 General Physics Laboratory

and one of
- STAT 270-3 Introduction to Probability and Statistics
- STAT 213-3 Statistics for the Life Sciences

Simon Fraser University 2005 - 2006
plus both of
MATH 151-3 Calculus I
MATH 152-3 Calculus II
or both of
MATH 154-3 Calculus I for the Biological Sciences
MATH 155-3 Calculus II for the Biological Sciences
34 credit hours

Upper Division Requirements (total specified hours 45)

Required Geography Courses — 300 Level three of
GEOG 311-4 Hydrology I
GEOG 313-4 Geomorphology II
GEOG 314-4 Climatology II
GEOG 315-4 Regional Ecosystems
GEOG 316-4 Ecosystem Biogeochemistry
GEOG 317-4 Soil Science I
one of
GEOG 322-4 World Resources
GEOG 323-4 Industrial Location
GEOG 324-4 Geography of Transportation
GEOG 325-4 Geography of Service Activities
GEOG 326-4 Geography of Tourism and Outdoor Recreation
GEOG 382-4 Geography of Urban Development
GEOG 389-4 Human Microgeography
GEOG 375-4 Historical Geography I
GEOG 391-4 Political Geography
GEOG 382-4 Population Geography
GEOG 383-4 Regional Development and Planning I
GEOG 385-4 Agriculture and the Environment
GEOG 386-4 Geography, Health and Health Care
GEOG 387-4 Geography and Gender
GEOG 389-4 Human Ecology: Human Relations to Nature
one of
GEOG 301-4 Geographic Ideas and Methodology
GEOG 351-4 Cartography and Visualization
GEOG 352-4 Spatial Analysis
GEOG 353-4 Remote Sensing
GEOG 355-4 Geographical Information Science II
GEOG 356-4 Cognitive Cartography 20 credit hours

Required Geography Courses — 400 Level two of
GEOG 411-4 Hydrology II
GEOG 412-4 Glacial Processes and Environments
GEOG 413-4 Geomorphology III
GEOG 414-4 Climatology III
GEOG 415-4 Advanced Biogeography
GEOG 416-4 Pleistocene Geogaphy
GEOG 417-4 Soil Science II
plus eight additional hours of upper division courses from any 300 or 400 level courses in geography 16 credit hours

Faculty of Science Courses
Students must complete a minimum of nine semester hours from 300-400 division BISC, CHEM, EASC, MATH, MBB, NUSC, PHYS and STAT courses.
9 credit hours
A student must take 44 upper division credit hours (excluding EDUC 401, 402, 405 and 406), and additional credit in any courses (excluding EDUC 401, 402, 405 and 406) to bring the total to 120 credit hours. See “Requirements for Major” on page 213.

Honors Program
This program is the same as the major except that it must include a minimum of 60 credit hours of 300-400 division courses, of which 48 must be in geography or other closely related Faculty of Science subjects approved by the Department of Geography. Students are strongly encouraged to seek Department of Geography advice in advance about suitability of courses. GEOG 491 (Honors Essay) may be included in these 48 hours. The remaining 12 upper division credit hours must be from BISC, CHEM, EASC, MATH, MBB, NUSC, PHYS or STAT courses. A total of 132 credit hours is required and graduation GPAs of not less than 3.00. See “General Regulations” on page 48 and “Requirements for Honors and Honors First Class” on page 213.

Honors program entry requires department approval.

Minor Program

Lower Division Requirements
GEOG 100-3 Human Geography
GEOG 111-3 Physical Geography
plus one of
GEOG 250-3 Cartography I
GEOG 253-3 Aerial Photographic Interpretation
GEOG 255-3 Geographical Information Science I

Upper Division Requirements
A minimum of 15 hours is required to be selected from the following or their equivalents.
GEOG 311-4 Hydrology I
GEOG 313-4 Geomorphology II
GEOG 314-4 Climatology II
GEOG 315-4 Regional Ecosystems
GEOG 316-4 Ecosystem Biogeochemistry
GEOG 317-4 Soil Science I
GEOG 411-4 Hydrology II
GEOG 412-4 Glacial Processes and Environments
GEOG 413-4 Geomorphology III
GEOG 414-4 Climatology III
GEOG 415-4 Advanced Biogeography
GEOG 416-4 Pleistocene Geography
GEOG 417-4 Soil Science II

Co-operative Education
Co-op education augments academic studies with relevant work experience. The program includes four full-time paid work semesters which alternate with academic semesters. Work semester arrangements are made through co-op education.

Major and honors students in the physical geography BSc program apply for admission through the Department of Geography for details.

Professional Registration as a BC Geoscientist
The right to practise in and to accept professional responsibility for geoscience in BC is limited to registered members of the Association of Professional Engineers and Geoscientists of British Columbia (APEBC). Requirements for registration can be met by the physical geography BSc major program and selected courses in other university departments. Consult the undergraduate advisor in the Department of Geography for details.
Students must complete all of the following.

**Upper Division Requirements**

**40-42 credit hours**

- MATH 310-1 Introduction to Ordinary Differential Equations
- PHYS 324-2 Electromagnetics
- PHYS 331-2 Electrons Laboratory
- PHYS 332-3 Optics Laboratory
- PHYS 344-3 Thermal Physics
- PHYS 355-3 Optics
- PHYS 385-3 Quantum Physics
- PHYS 430-5 Digital Electronics and Interfacing

either all of

- NUSC 341-3 Introduction to Radiochemistry
- NUSC 342-3 Introduction to Nuclear Science
- NUSC 346-2 Radiochemistry Laboratory

or three of

- PHYS 365-3 Semiconductor Device Physics
- PHYS 431-4 Advanced Physics Laboratory I
- PHYS 456-3 Applied Optics
- PHYS 465-3 Solid State Physics

**Other Requirements**

Please see “Requirements for Major” on page 213.

**Chemical Physics Major Program**

This program is offered jointly by the Departments of Chemistry and Physics. Entry requires permission of both. Students are strongly encouraged to take at least three lower division computing science credit hours.

**Lower Division Requirements**

**56-57 credit hours**

Students must complete all of

- CHEM 121-4 General Chemistry Laboratory I
- CHEM 122-2 General Chemistry II
- CMPT 102-3 Introduction to Computer Programming
- CMPT 293-3 Introduction to Computer Architecture
- MATH 151-3 Calculus I
- MATH 152-3 Calculus II
- MATH 251-3 Calculus III
- MATH 252-3 Vector Calculus
- MATH 253-3 Introduction to Ordinary Differential Equations
- PHYS 125-3 Electromagnetics
- PHYS 126-3 Electronics and Instrumentation
- PHYS 430-5 Digital Electronics and Interfacing

Students are strongly encouraged to take at least three lower division computing science credit hours.

**Upper Division Requirements**

**40-42 credit hours**

- CHEM 316-4 Instrumental Analysis
- CHEM 340-3 Materials Chemistry
- CHEM 366-2 Physical Chemistry Laboratory I
- CHEM 482-3 Molecular Spectroscopy
- MATH 310-3 Introduction to Ordinary Differential Equations
- NUSC 341-3 Introduction to Radiochemistry
- PHYS 326-3 Electronics and Instrumentation
- PHYS 331-3 Electronics Laboratory
- PHYS 360-3 Kinetics and Thermodynamics
- PHYS 344-3 Thermal Physics

and one of

- CHEM 460-3 Advanced Physical Chemistry
- PHYS 445-3 Statistical Physics
- PHYS 485-1 Advanced Optical Physics

Students must complete all of

- CMPT 250-3 Introduction to Computer Architecture
- CMPT 293-3 Introduction to Computer Architecture
- MATH 151-3 Calculus I
- MATH 152-3 Calculus II
- MATH 251-3 Calculus III
- PHYS 125-3 Electromagnetics
- PHYS 126-3 Electronics and Instrumentation
- PHYS 430-5 Digital Electronics and Interfacing

or one of

- CHEM 365-3 Semiconductor Device Physics
- PHYS 431-4 Advanced Physics Laboratory I
- PHYS 456-3 Applied Optics
- PHYS 465-3 Solid State Physics

**Other Requirements**

Please see “Requirements for Major” on page 213.

**Physics Major Program**

This program offers a solid physics background with the opportunity to branch out into other disciplines. Because of maximum flexibility in upper division physics requirements, students can plan their own upper division major programs to fit individual objectives and interests. Students must consult a physics advisor when planning their programs.

**Lower Division Requirements**

**46 credit hours**

- CHEM 121-4 General Chemistry Laboratory I
- CHEM 122-2 General Chemistry II
- CMPT 102-3 Introduction to Scientific Computer Programming
- MATH 151-3 Calculus I
- MATH 152-3 Calculus II
- MATH 251-3 Calculus III
- MATH 252-3 Vector Calculus
- PHYS 125-3 Electromagnetics
- PHYS 126-3 Electronics and Instrumentation
- PHYS 310-3 Introduction to Ordinary Differential Equations
- PHYS 324-2 Electromagnetics
- PHYS 331-2 Electrons Laboratory
- PHYS 344-3 Thermal Physics
- PHYS 355-3 Optics
- PHYS 385-3 Quantum Physics

and one of

- CHEM 365-3 Semiconductor Device Physics
- PHYS 431-4 Advanced Physics Laboratory I
- PHYS 456-3 Applied Optics
- PHYS 465-3 Solid State Physics

**Other Requirements**

Please see “Requirements for Major” on page 213.

**Applied Physics Honors Program**

This program offers a solid physics background combined with an extensive introduction to the applied aspects of physics necessary for careers in high technology industries. In addition, students have the option of various specialized upper division
courses. Students should enrol in co-op education to acquire industrial experience.

Notes: PHYS 432, based on an industrially motivated project, is strongly recommended as is an additional second year computing course such as CMPT 212. Students considering physics graduate programs should take PHYS 413, 415, 425 and 445.

Lower Division Requirements
Requirements are the same as for the applied physics major program.

Upper Division Requirements (51 credit hours)
Students must complete all of
MATH 310-3 Introduction to Ordinary Differential Equations
PHYS 324-3 Electromagnetics
PHYS 326-3 Electronics and Instrumentation
PHYS 331-3 Electronics Laboratory
PHYS 332-3 Optics Laboratory
PHYS 344-3 Thermal Physics
PHYS 355-3 Optics
PHYS 384-3 Methods of Theoretical Physics I
PHYS 385-3 Quantum Physics
PHYS 430-3 Digital Electronics and Interfacing
PHYS 431-4 Advanced Physics Laboratory I
PHYS 465-3 Solid State Physics
and 12 additional credit hours chosen from
ENSC 426-4 High Frequency Electronics
ENSC 495-3 Introduction to Microelectronic Fabrication
PHYS 365-3 Semiconductor Physics
PHYS 455-3 Applied Optics
CHEM 340-3 Materials Chemistry or
ENSC 330-3 Engineering Materials
MACM 316-3 Numerical Analysis I or
PHYS 395-3 Computational Physics
*the normal prerequisite for this course (ENSC 222) can be replaced by PHYS 326 and 331.

Other Requirements
Please see “Requirements for Major” on page 213.

Chemical Physics Honors Program
This program is offered jointly by the Departments of Chemistry and Physics. Entry requires permission of both. Honors program graduates may do graduate work in either chemistry or physics. Students are strongly encouraged to take at least three lower division computing science credit hours.

Lower Division Requirements
Requirements are the same as for the chemical physics major.

Upper Division Requirements (50-52 credit hours)
Students must complete all of
CHEM 340-3 Materials Chemistry
CHEM 366-2 Physical Chemistry Laboratory I
CHEM 462-3 Molecular Spectroscopy
MATH 310-3 Introduction to Ordinary Differential Equations
PHYS 324-3 Electromagnetics
PHYS 326-3 Electronics and Instrumentation
PHYS 331-3 Electronics Laboratory
PHYS 384-3 Methods of Theoretical Physics I
PHYS 415-3 Quantum Mechanics
PHYS 465-3 Solid State Physics
plus one of
CHEM 360-3 Kinetics and Thermodynamics
PHYS 344-3 Thermal Physics
and one of
CHEM 460-3 Advanced Physical Chemistry
PHYS 445-3 Statistical Physics
and one of
CHEM 464-3 Quantum Chemistry
PHYS 385-3 Quantum Physics
plus both of
PHYS 332-3 Optics Laboratory
PHYS 355-3 Optics
or one of
CHEM 481-8 Undergraduate Research
PHYS 431-4 Advanced Physics Laboratory
PHYS 432-5 Undergraduate Honors Thesis
plus five upper division chemistry or nuclear science credit hours
plus three upper division physics or nuclear science credit hours.

Other Requirements
Please see “Requirements for Major” on page 213.

Mathematical Physics Honors Program
Advisors
Dr. A. DeBenedectis BSc (Br Col), MS (Windsor),
PhD (S Fraser), P9446 Shrum Science Centre, 604.291.4369
Mrs. M. Fankboner BA (Occidental), MSc (S Fraser),
K10511 Shrum Science Centre, 604.291.4849
Dr. R. Choksi BSc (Tor), MS, PhD (Brown), K10531
Shrum Science Centre, 604.291.3379
This program is offered jointly by the Departments of Mathematics, and Physics. Graduates may do graduate work in mathematics or physics depending on interest. Some additional work in either mathematics or physics may be required. Students must consult an advisor when planning their programs.

Lower Division Requirements (46-47 credit hours)
Students must complete one of the following choices.
CMPT 102-3 Introduction to Scientific Computer Programming
or both of
CMPT 120-3 Introduction to Computing Science and Programming I
CMPT-125-3 Introduction to Computing Science and Programming II
or
CMPT 126-3 Introduction to Computer Science and Programming
and all of
MATH 151-3 Calculus I
MATH 152-3 Calculus II
MATH 232-3 Elementary Linear Algebra
MATH 242-3 Introduction to Analysis I
MATH 251-3 Calculus III
MATH 252-3 Vector Calculus
PHYS 125-3 Mechanics and Special Relativity
PHYS 126-3 Electricity, Magnetism and Light
PHYS 131-2 Physics Laboratory I
PHYS 211-3 Intermediate Mechanics
PHYS 221-3 Intermediate Electricity and Magnetism
PHYS 231-3 Physics Laboratory II
PHYS 232-2 Physics Laboratory III
PHYS 285-3 Introduction to Relativity and Quantum Mechanics
STAT 270-3 Introduction to Probability and Statistics

Upper Division Requirements (63-65 credit hours)
Students must complete all of
MATH 316-3 Numerical Analysis I
MATH 310-3 Introduction to Ordinary Differential Equations
MATH 320-3 Introduction to Analysis II
MATH 322-3 Complex Variables
MATH 418-3 Partial Differential Equations
and two of
MATH 332-3 Introduction to Applied Algebraic Systems
MATH 419-3 Linear Analysis
MATH 424-3 Applications of Complex Analysis
MATH 425-3 Real Analysis
MATH 438-3 Linear Algebra
MATH 439-3 Introduction to Algebraic Systems
MATH 467-3 Dynamical Systems
and one of
MATH 461-3 Continuous Mathematical Models
MATH 462-3 Fluid Dynamics
MATH 495-3 Selected Topics in Applied Mathematics
and one of
MATH 416-3 Numerical Analysis II
MATH 309-3 Continuous Optimization
PHYS 395-3 Computational Physics
plus one additional course to be selected from the three groupings above.
and all of
PHYS 344-3 Thermal Physics
PHYS 384-3 Methods of Theoretical Physics I
PHYS 385-3 Quantum Physics
PHYS 413-3 Advanced Mechanics
PHYS 415-3 Quantum Mechanics
PHYS 425-3 Electromagnetic Theory
PHYS 445-3 Statistical Physics
and either both of
PHYS 355-3 Optics
PHYS 332-2 Optics Laboratory
or both of
PHYS 326-3 Electronics and Instrumentation
PHYS 331-3 Electronics Laboratory
and two of
NUSC 485-3 Particle Physics
PHYS 380-3 Introduction to Subatomic Physics
PHYS 390-3 Introduction to Astrophysics
PHYS 432-6 Undergraduate Honors Thesis
PHYS 465-3 Solid State Physics
PHYS 484-3 Nonlinear Physics
PHYS 490-3 General Relativity and Gravitation

Other Requirements
Please see “Requirements for Major” on page 213.
CHEM 121 and 122 should be included among the elective courses taken for this program.

Physics Honors Program
This program provides in-depth understanding of basic physics in preparation for high technology industries where well developed experimental skills, contemporary computing skills and state-of-the-art instrumentation experience is required. An honors physics degree is generally required for post-graduate physics study and closely related disciplines. A B grade or higher is required to graduate.

Lower Division Requirements
Requirements are the same as for the physics major.

Upper Division Requirements (57 credit hours)
MATH 310-3 Introduction to Ordinary Differential Equations
MATH 322-3 Complex Variables
plus one more MATH course numbered 316 or greater (including MACM 316)
all of
PHYS 326-3 Electronics and Instrumentation
PHYS 331-3 Electronics Laboratory
PHYS 332-3 Optics Laboratory
PHYS 344-3 Thermal Physics
PHYS 355-3 Optics
PHYS 384-3 Methods of Theoretical Physics I
PHYS 385-3 Quantum Physics
PHYS 413-3 Advanced Mechanics
PHYS 415-3 Quantum Mechanics
PHYS 425-3 Electromagnetic Theory
PHYS 431-4 Advanced Physics Laboratory I
PHYS 445-3 Statistical Physics
At least 11 credit hours to be chosen from
NUSC 485-3 Particle Physics
PHYS 432-3 Undergraduate Honors Thesis
PHYS 455-3 Applied Optics
PHYS 465-3 Solid State Physics
PHYS 484-3 Nonlinear Physics
PHYS 490-3 General Relativity and Gravitation
PHYS 492-3 Special Topics in Physics
PHYS 493-3 Special Topics in Physics

Other Requirements
Please see “Requirements for Major” on page 213.

Physics and Physiology Honors Program
This challenging program, for those who enjoy physics but intend to pursue a career in life sciences, is offered jointly by the Department of Physics and the School of Kinesiology. It provides a strong physics background with enough physiology and biomechanics emphasis for biotechnology industry work, to pursue physiology, kinesiology, or biophysics graduate studies, or to attend professional programs such as medicine. Students pursuing physics graduate work must take fourth year PHYS courses beyond those specified. Medical school applicants should check entrance requirements for the school to which they apply. Participants in the program may participate in the co-operative education program.

Lower Division Requirements (56 credit hours)
BISC 101-4 General Biology
CHEM 121-4 General Chemistry and Laboratory I
CHEM 122-2 General Chemistry II
CHEM 126-2 General Chemistry Laboratory II
CMPT 102-3 Introduction to Scientific Computer Programming
PHYS 211-3 Introduction to Human Physiology
MATH 232-3 Elementary Linear Algebra
MATH 251-3 Calculus III
MATH 252-3 Vector Calculus
MBB 221-3 Cellular Biology and Biochemistry
PHYS 211-3 Intermediate Mechanics
PHYS 221-3 Intermediate Electricity and Magnetism
PHYS 231-3 Physics Laboratory I
PHYS 285-3 Introduction to Relativity and Quantum Mechanics
and one of
MATH 151-3 Calculus I
MATH 154-3 Calculus I for the Biological Sciences
and one of
MATH 152-3 Calculus II
MATH 155-3 Calculus II for the Biological Sciences
and one of
PHYS 101-3 General Physics I

PHYS 120-3 Mechanics
PHYS 125-3 Mechanics and Special Relativity
and one of
PHYS 102-3 General Physics II
PHYS 121-3 Optics, Electricity and Magnetism
PHYS 126-3 Electricity, Magnetism and Light
and one of
PHYS 130-2 General Physics Laboratory
PHYS 131-2 Physics Laboratory I

Upper Division Requirements (53-58 credit hours)
CHEM 360-3 Chemical Kinetics and Thermodynamics
KIN 301-3 Biomechanics Laboratory
KIN 305-3 Human Physiology I
KIN 306-3 Human Physiology II
KIN 407-3 Human Physiology Laboratory
MATH 310-3 Introduction to Ordinary Differential Equations
PHYS 324-3 Electromagnetics
PHYS 326-3 Electronics and Instrumentation
PHYS 331-3 Electronics Laboratory
PHYS 384-3 Methods of Theoretical Physics I
PHYS 432-5 Undergraduate Honors Thesis
and three of
KIN 326-3 Functional Anatomy
KIN 412-3 Molecular and Cellular Cardiology
KIN 415-3 Neural Control of Movement
KIN 416-3 Control of Limb Mechanics
KIN 418-4 Electrophysiological Techniques Laboratory
KIN 426-3 Neuroumuscular Anatomy
KIN 442-3 Biomedical Systems
KIN 485-4 Human Factors in the Underwater Environment
and three of
NUSC 341-3 Introduction to Radiochemistry
PHYS 332-3 Optics Laboratory
PHYS 355-3 Optics
PHYS 365-3 Computational Physics
PHYS 413-3 Advanced Mechanics
PHYS 415-3 Quantum Mechanics
PHYS 425-3 Electromagnetic Theory
PHYS 430-5 Digital Electronics and Interfacing
PHYS 431-4 Advanced Physics Laboratory I
PHYS 445-3 Statistical Physics
PHYS 455-3 Applied Optics
PHYS 484-3 Nonlinear Physics

Students may choose to graduate in either the Faculty of Science or the Faculty of Applied Sciences and should choose their electives accordingly.

Notes:
(a) The prerequisite of KIN 201 may be waived by the School of Kinesiology provided that PHYS 211 has already been taken.
(b) The prerequisite of CHEM 281 may be waived by the School of Kinesiology.
(c) Supervised jointly by the Department of Physics and the School of Kinesiology.

Nuclear Science Minor Program
This minor program is offered jointly with the Department of Chemistry. See page 218 for details.

Physics Minor Program
Students must complete a minimum of 14 upper division physics credit hours in courses numbered 300 and above, together with all the prerequisites. Students are expected to select a reasonable list of courses that must be approved by the Physics department.

Nuclear Science Courses
NUSC 485 may be counted as upper division physics courses in a physics major, honors and minor programs.

Co-operative Education Program
Dr. K. Kavanagh, physics co-op co-ordinator,
P9443 Shrum Science Centre, 604.291.4244,
kavanagh@sfu.ca
Ms. D. Bartlette, Faculty of Science co-op co-ordinator,
C9033 Shrum Science Centre,
604.291.4694, deborah_bartlette@sfu.ca
Co-op combines work experience with academic studies. The student spends alternate semesters on campus and in study related jobs. Please see “Co-operative Education” on page 240.

Department of Statistics and Actuarial Science
K10545 Shrum Science Centre, 604.291.3803 Tel,
604.291.4368 Fax, www.stat.sfu.ca
Chair
P.D. Routledge BSc (Qu), MSc (Alta), PhD (Dal)
Professor Emeritus
M.A. Stephens BSc (Brist), AM (Harv), PhD (Tor)
Shrum Chair
S. Thompson AB (Calif), MS, PhD (Oregon State)
Professors
C.B. Dean BSc (Sask), MMath, PhD (Wat)
R.A. Lockhart BSc (Br Col), MA, PhD (Calif)
R.D. Routledge BSc (Qu), MSc (Alta), PhD (Dal)
G.L. Schwarz BSc, MSc, PhD (Manit)
R.R. Sitter BSc, MSc (Br Col), PhD (Wat)
T.B. Swartz BMath (Wat), MSc, PhD (Tor)
Associate Professors
J. Graham BSc, MSc (Br Col), MSc, PhD (Wash)
J. Hu BS, MS (Peking), PhD (Wat)
W.B. McNaney BSc, MSc (Br Col), MSc, PhD (Wash)
G. Parker BSc, MSc (Laval), PhD (H-W)
B. Tang BS, MS (Peking), PhD (Wat)
K.L. Weldon BSc, MSc (Tor), PhD (Stan)
Assistant Professors
R. Altman BA (Wat), MS (Cornell), PhD (Br Col)
D. Bingham BSc (C'dia), MSc (Car), PhD (S Fraser), Canada Research Chair
Y. Lu BSc (Fudan Shanghai), MSc, PhD (C'dia)
C. Tsai BS (Nth Taiwain), MS (Nth Chiao-Tung Taiwain), MS (Wisc), PhD (Wat)
Adjunct Professors
R. Balshaw BSc, MSc (Manit), PhD (S Fraser)
S.G. Banneheka MSc (Lond), MSc, PhD (S Fraser)
P. Gill BSc, MSc (PunjAg), PhD (IIT Kanpur)
F. He BSc, MSc (Nanjing Forest), MSc (Chin Acad Sc), MSc (Vic, BC), PhD (Montr)
N. Hergartner BSc (Laval), MMath (Wat), PhD (Calif)
J. Spinnell BSc, MSc, PhD (S Fraser)
Associate Member
N. Reilly, Mathematics
Senior Lecturer
R. Insley BSc, MSc (Br Col)
Statistical Consulting Service
I. Bercovitz BSc (Br Col), MSc (Car)
The department maintains a committee of advisors early in their academic careers about program planning from these advisors.
The department offers a program within the Faculty of Science leading to a bachelor of science with a major or honors in Statistics and a major or honors in Actuarial Science, see page 195. The department also offers a statistics minor and a certificate in Actuarial Mathematics.

The following programs in statistics train students, not only in the analysis of large data sets, but also in the design and analysis of scientific experiments and sample surveys. These techniques are applied in a broad range of fields. To fully appreciate their application, it is important that students also gain advanced training in an area of potential application. To this end, major or honors students in statistics complete a minor in a field other than statistics. In keeping with the almost universal applicability of statistical methodology, there are no other restrictions on the selection of a minor. Students should discuss this selection with an advisor early in their program.

Students interested in statistics or in actuarial science may consider the following related programs: mathematics and computing science, management and systems science.

Admission Information

Actuarial Science

To be considered for admission to one of the actuarial programs, students must have completed each lower division requirement course in mathematics and statistics or its equivalent with a minimum of C+ grade. They must also have completed ACMA 310 with a minimum of C+ grade and have a CGPA of at least 3.0. Students will be selected competitively: achieving the minimum grade requirements will not guarantee admission to the programs. The program will only admit 25–30 students each year. Students should apply in the semester in which they take ACMA 310.

Management and Systems Science

To be considered for admission to the major or honors program in management and systems science, a student must achieve a program-related SFU GPA of 2.7. This GPA is based on the lower division courses required for MSSC and taken at SFU. Admission is competitive and achieving the minimum GPA does not guarantee admission to the program.

Statistics

Students seeking admission to the statistics major or honors program in management and systems science must normally have achieved a B-average in at least two approved SFU STAT courses. Please see the department website for the details of implementation of this policy.

Students seeking admission to the statistics minor program must normally have achieved at least a C+ average in STAT 270. Please see the department website for the details of implementation of this policy.

Co-operative Education

This program integrates work experience with academic study. See “Co-operative Education” on page 240 and consult early with the co-op co-ordinator, Mr. E. Simons, at esimons@sfu.ca.

Courses for Further Credit

No student may take, for further credit, any course offered by the Department of Statistics and Actuarial Science which is a prerequisite for a course the student has already completed with a grade of C- or higher without permission of the department.

Computing Recommendation

Some experience with a high level programming language is recommended by the beginning of the second year.

Non-specialist STAT Courses

The following courses are intended to be particularly accessible to students who are not specializing in statistics: STAT 100, 101, 201, 203, 302, 403.

Open Workshops

Some introductory and service courses are organized through the department’s open workshops. In addition to regularly scheduled lectures, students registered in STAT 101, 203, 270, 201, 302 are encouraged to come to the workshops for assistance any time during posted hours. At the workshop students meet with the co-ordinator, teaching assistants and students, and work together to understand mathematics in a friendly and helpful environment. The statistics workshop is held in K9516 Shrum Science Centre (inside K9510).

Beginning Level Requirements in Statistics

Students considering registering in a statistics course who do not have BC high school mathematics 11 (or equivalent) must see the co-ordinator of the basic math workshop (as described under Mathematics in the Undergraduate Courses section). These students may take the non-credit basic math course, basic algebra, offered through the Department of Mathematics.

Students who are unsure of their level of preparation are strongly encouraged to take the free math assessment test at the Basic Math Workshop, K9505 or at Simon Fraser University at Harbour Centre. Students should make certain that they discuss the test results with the lab instructor in the Basic Math Workshop, or her designate.

Prerequisite Grade Requirement

Students must have obtained a grade of C- or better in prerequisite for courses labelled STAT, and C or better for courses labelled ACMA, offered by the Department of Statistics and Actuarial Science.

GPA Requirement for Continuation

To continue in the actuarial science or statistics programs, students must maintain a GPA of at least 2.25 on courses labelled MATH, STAT or ACMA.

To continue in the management and systems science program, students must maintain a CGPA of at least 2.5.

Faculty of Science Requirements

Students must satisfy the Faculty of Science upper division credit, breadth and grade point average requirements.

Certificate in Actuarial Mathematics

This program provides the mathematical and statistical background for the Society of Actuaries early examinations. Students enrolling in this program must already have completed MATH 151, 152 or their equivalents and have knowledge of one programming language. To obtain the certificate, three lower division courses and nine upper division courses must be completed. The lower division courses follow.

MATH 232-3 Elementary Linear Algebra
STAT 270-3 Introduction to Probability and Statistics
STAT 285-3 Intermediate Probability and Statistics

A GPA of at least 2.5 is required on the nine required upper division courses. These nine courses must be chosen from the list below and must include both of

ACMA 310-3 Mathematics of Compound Interest
ACMA 320-5 Actuarial Mathematics I

at least four of

ACMA 315-3 Credibility Theory and Loss Distribution
ACMA 335-3 Risk Theory
ACMA 395-3 Special Topics in Actuarial Science
ACMA 425-3 Actuarial Mathematics II
ACMA 445-3 Survival Models
ACMA 490-3 Selected Topics in Actuarial Science
ACMA 495-3 Directed Studies in Actuarial Science

at least one of

MACH 316-3 Numerical Analysis I
MATH 308-3 Linear Programming
STAT 330-3 Introduction to Mathematical Statistics
STAT 350-3 Linear Models in Applied Statistics

Note: Students in a mathematics honors, major or minor program may count these ACMA, MATH, MACH, or STAT courses toward both the certificate in actuarial mathematics or for the mathematics or statistics program. See mathematics or statistics program requirements for restrictions.

Degree holders may receive waivers and/or transfer credits. In all cases, a minimum of nine courses is required while in the certificate program. At least six courses must be taken at SFU, of which a minimum of four must be ACMA courses. The GPA in the graduation requirement will be calculated based on courses taken at Simon Fraser University. No student may take, for further credit, any course offered by the Department of Statistics and Actuarial Science which is a prerequisite for a course the student has already completed with a grade of C- or higher, without permission of the department.

Actuarial Science Major Program

Actuarial science majors must achieve a CGPA of 2.50 or better to graduate.

Students will be required to obtain credit for the following courses.

Lower Division Requirements

Students must complete all of

ECON 103-3 Principles of Microeconomics
ECON 105-3 Principles of Macroeconomics
MATH 151-3 Calculus I
MATH 152-3 Calculus II
MATH 251-3 Calculus III
MATH 232-3 Elementary Linear Algebra
STAT 270-3 Introduction to Probability and Statistics
STAT 285-3 Intermediate Probability and Statistics

plus two of

BUS 207-3 Managerial Economics
BUS 251-3 Financial Accounting
BUS 254-3 Managerial Accounting
ECON 210-3 Money and Banking
ECON 290-3 Canadian Microeconomics
ECON 291-3 Canadian Macroeconomics
plus two CMPT and two ENGL or PHIL courses.

Upper Division Requirements

Students must complete all of

ACMA 310-3 Mathematics of Compound Interest
ACMA 315-3 Credibility Theory and Loss Distribution
ACMA 320-5 Actuarial Mathematics I
ACMA 335-3 Risk Theory
ACMA 425-3 Actuarial Mathematics II
ACMA 445-3 Survival Models
STAT 330-3 Introduction to Mathematical Statistics
STAT 350-3 Linear Models in Applied Statistics
STAT 450-3 Statistical Theory

plus at least nine credit hours chosen from

BUS 312-4 Introduction to Finance
Statistics Major Program

a) Lower Division Requirements

Mathematics

Students must complete one of

- MATH 151-3 Calculus I
- MATH 154-3 Calculus I for the Biological Sciences

plus one of

- MATH 152-3 Calculus II
- MATH 155-3 Calculus II for the Biological Sciences

plus both of

- MATH 233-3 Elementary Linear Algebra
- MATH 251-3 Calculus III

Statistics

Students must complete both of

- STAT 270-3 Introduction to Probability and Statistics
- STAT 285-3 Intermediate Probability and Statistics

Computing Science

Students must complete

- CMPT 126-3 Introduction to Computer Science and Programming

or both of

- CMPT 120-3 Introduction to Computing Science and Programming
- CMPT 125-3 Introduction to Computing Science and Programming

b) Upper Division Requirements

Students must complete all of

- STAT 330-3 Introduction to Mathematical Statistics
- STAT 350-3 Linear Models in Applied Statistics
- STAT 400-3 Data Analysis

plus four additional upper division courses labelled ACMA, MACM, MATH or STAT, excluding STAT 301, 302 and 403. Students should consult a departmental advisor before selecting these courses. It is recommended that the four additional upper division courses be selected from STAT 380, 400, 460, 490, 495 and MACM 316. Note that for honors students these four courses may not overlap with those used to satisfy requirements d) and e) below.

c) Minor Program Requirement

Students are required to complete a minor in a discipline other than statistics. The certificate in actuarial mathematics may fulfill this requirement.

Statistics Honors Program

A bachelor of science with honors in statistics requires 132 credit hours. Please see “Requirements for Major” on page 213 for further breadth, upper division credit, and other requirements.

In addition to the requirements a), b) and c) for a major, candidates for an honors degree in statistics will be required to complete:

d) Additional Mathematics Requirements

All of

- MATH 242-3 Introduction to Analysis

- MATH 320-3 Advanced Calculus of One Variable
- MATH 322-3 Complex Variables

plus one of

- MATH 332-3 Introduction to Applied Algebraic Systems
- MATH 339-3 Groups and Symmetry
- MATH 438-3 Linear Algebra

e) Additional Statistics Requirements

- STAT 380-3 Introduction to Stochastic Processes
- STAT 460-3 Decision Analysis and Bayesian Inference

Statistics Minor Program

Statistics minor candidates are subject to the general regulations of the faculty in which they are registered. In addition, students will be required to obtain credit for the following courses.

Mathematics Requirements

Students must complete one of

- MATH 151-3 Calculus I
- MATH 154-3 Calculus I for the Biological Sciences
- MATH 157-3 Calculus for the Social Sciences I

plus one of

- MATH 152-3 Calculus II
- MATH 155-3 Calculus II for the Biological Sciences
- MATH 158-3 Calculus for the Social Sciences II

plus both of

- MATH 232-3 Elementary Linear Algebra
- MATH 251-3 Calculus III

Statistics Requirements

Students must complete

- STAT 270-3 Introduction to Probability and Statistics
- STAT 285-3 Intermediate Probability and Statistics

and at least five of the following courses.

ACMA 315-3 Credibility Theory and Loss Distributions
ACMA 320-3 Actuarial Mathematics I
ACMA 335-3 Risk Theory
ACMA 445-3 Survival Models
ACMA 490-3 Special Topics in Actuarial Science

*these core courses are recommended

Co-operative Education

Students are strongly advised to participate in the Co-operative Education program. See page 240.
Continuing Studies

1300 Lohn Building, West Mall Complex, 604.291.5100 Tel, 604.291.3851 Fax, www.sfu.ca/continuing-studies

Simon Fraser University Vancouver, 515 West Hastings Street, Vancouver BC V6B 5K3, 604.291.5100 Tel, 604.291.5098 Fax, www.sfu.ca/continuing-studies

Simon Fraser University Surrey, 2400 Central City, Surrey BC V3T 2W1

Centre for Online and Distance Education, 1300 Lohn Building, West Mall Complex, 604.291.3524 Tel, 1.800.663.1411 (toll free within BC), 604.291.4964 Fax, www.sfu.ca/cde

Dean
J.G. LaBrie BS (Maine), MSA (St Michael’s, VT), EdD (PENN)

Associate Deans
J. Collinge BA, MA, PhD (S Fraser), T. Nesbit BA (Open), MA (San Francisco State), PhD (Br Col)

A. Aberbach BA (Rutgers), MA (Miami), PhD (Florida), Program Director, Opera Studies and Seniors Program
J. Ashworth BA (S Fraser), MA, PhD (Br Col), North Growth Management Director of Programs
J. Bean BA (Tor), Program Director, Writing and Publishing Program (on leave)
D. Bell BEd (Alta), MEd (Br Col), Program Director, Community Education Program
S. Burgess BBA (S Fraser), MBA (Br Col), Program Director, Management and Professional Programs
J. Collinge BA, MA, PhD (S Fraser), Associate Dean and Director, Centre for Online and Distance Education
A. Cowan BA (Tor), MA (Car)
J. Denham, Program Director, Applied Sciences
C. Dunlop BA (Middlebury), MSc, PhD (Br Col), Program Director, Research and Evaluation
P. Gallaugher BSc, DipEd (Br Col), PhD (S Fraser), Program Director, Science Programs
J. Hsu MA (Kansas), Associate Director, Language, Culture and Interpretation Program
A.D. Hungerford BA, MA (S Fraser), Laboratory Instructor
C. Joyner BEd, MA (McGill), PhD (SAID, Philippines), Program Director, International Programs
E. Kirkpatrick BA, MA (Br Col), Manager, Administration
C. Knight, Program Director, Information
W. Liu BA (Nankai), BA (Tenn), Director, Language, Culture and Interpretation Program
K. McManus BSc (Indiana), MA (Nfld), PhD (Br Col), Program Director, Centre for Online and Distance Education
R. McTavish BA, MA (S Fraser), Program Director, Centre for Online and Distance Education
T. Nesbit BA (Open), MA (San Francisco State), PhD (Br Col), Associate Dean and Director, Centre for Integrated and Credit Studies
J. Oberlander BA (Smith College), MS (Col), Program Director, City Program
R. Price BGS, MA (S Fraser), Program Director, Integrated Studies Program
P. Southby, Program Director, Conference Services
Y. Tabin BGS, MA, PhD (S Fraser), Associate Director/Program Director, Centre for Online and Distance Education
J. Whatley BA (Chapman Coll), MA, PhD (S Fraser), Program Director, Centre for Online and Distance Education

R. Woodward BA (Miami, Ohio), MA (Oregon), Acting Program Director, Writing and Publishing Program
Y. Wosk BA (Br Col), MA (Yeshiva, NY), PhD (W Lyon), PhD (Boston), Program Director, Interdisciplinary Programs

Part Time Credit Study

Students seeking degree credit on a part time basis must have the same regulations, have the same privileges, and follow the same admission and registration procedures as full time students. Relevant sections of this Calendar should be consulted concerning policies and procedures for admission, registration, academic programs available, program requirements, and current fees. Specific details regarding individual credit programs are available from faculties and departments.

Students pursuing certificates, diplomas, or minors who wish to study in the evenings or at Harbour Centre should consult with academic advisors at the Academic Resource Office (Burnaby campus) or Information and Registration Services (Harbour Centre site), or with the certificate or diploma program advisor regarding the availability of courses in upcoming semesters. Proposed course scheduling is available for many programs on request.

For information regarding upcoming courses at the Harbour Centre site, please call 604.291.5212.

Integrated Studies

The Integrated Studies (IS) program is an interdisciplinary completion program leading to a Bachelor of General Studies degree. Recognizing and building upon work experience and other post-secondary education, the cohort based IS program differs significantly from a typical undergraduate program. It is designed specifically for mid-career adults who wish to complete their undergraduate degrees in a respectful and intellectually challenging environment. Sponsored by the Faculty of Arts and Social Sciences, the IS program currently houses three separate programs:

Liberal and Business Studies

Offered on a part time basis, the curriculum integrates the broad perspectives of a liberal arts education and substantial skills in business administration. The three year (nine semester) program is offered at the Harbour Centre site on alternate Fridays and Saturdays, six times each semester. The application deadline for the September intake is March 31. The program is also offered at the Thomas Haney Centre in Maple Ridge and in Kitimat, BC.

Justice and Public Safety Leadership

This part time program will be of interest to those individuals working in the field of public safety (police, fire, corrections, etc.). This three year (nine semester) program is offered at the Surrey campus on Thursdays, Fridays and Saturdays, four times each semester, with a three week break between each session. The application deadline for the September intake is April 30.

Aboriginal Community Economic Development

Offered through a partnership with the Nicola Valley Institute of Technology (NVIT) in Merritt, BC, this full time, two year program has been designed for graduates of NVIT’s Diploma Program in Community Economic Development. The application deadline for the September intake is July 15th.

Further information may be obtained at www.sfu.ca/integratedstudies or by calling 604.291.5128/514.

Special Audit Student

The category of special audit student enables members of the community to access University credit courses as auditors. People interested in taking regular courses but who do not meet the general admission requirements or do not desire admission to the University may apply as special audit students. Such students attend courses but do not write final examinations or receive degree credit, record of attendance, or statements of standing.

Special audit application forms can be obtained from the Academic Resource Office at the Burnaby campus, Information and Registration Services at the Harbour Centre site, or from the Continuing Studies office. The form must be signed by the instructor during the second week of classes. Special audit fees (payable at the Academic Resource Office or Information and Registration Services) are calculated at one half the normal course fee. Persons aged 60 or more and who are Canadian citizens or have permanent resident status in Canada are exempt from this fee. Special audit students may not change registration status after the semester has commenced.

Seniors Program

This program is an integral part of SFU’s commitment to "help adults achieve their intellectual, professional and cultural goals through programs for lifelong learning that build on the strengths of the University and the resources of the community.”

Now in its 30th year, the Seniors Program offers a series of 10 intellectually challenging non-credit courses each week, open to anyone 55 years of age and older regardless of educational background. Courses meet once a week during mornings or early afternoon for two hours, and have a duration of eight to 10 weeks. New courses begin in September, January and May. In addition, we now offer a Seniors Program Non-credit Certificate in the Liberal Arts.

Senior citizens are also invited to apply for admission to the University to take courses leading to a degree. Once admitted, courses may be completed one at a time or through a full course load at either the Harbour Centre site where three special morning credit courses for seniors are offered each semester, or at the Burnaby campus. A Senior Citizens Certificate is available for those who complete 30 credit hours or more of courses. All credit courses count toward a university degree and all credit courses are tuition free for seniors 60 years of age or older.

For full details, please visit our web page at www.sfu.ca/seniors, or call 604.291.5212.

Language Program

German

The Goethe Zentrum offers progressively structured non-credit German language courses at the elementary, intermediate and advanced levels following the standardized Goethe-Institute curriculum. Special Topic courses such as conversation, refresher, and examination preparatory courses for advanced learners are offered as demand
warrants. A co-operative agreement between SFU and the Goethe-Institute in Germany enables the Goethe Zentrum to offer various levels of internationally recognized proficiency exams for work or study in a German speaking country.

Self Instructional Language Program

The less commonly taught languages Punjabi, Filipino and Ukrainian are offered at two levels as non-credit Self Instructional Language Programs (SILP) at the Harbour Centre site and at Surrey. SILP courses are a combination of distance education and face-to-face instruction. The students study at home and attend one-hour tutorials twice a week to practice oral language skills and to learn how to read and write the Punjabi and Ukrainian scripts.

French

In partnership with Language Training Canada (LTC), the Public Service Commission’s language institute, SFU offers non-credit French classes for civil service employees and the general public in Vancouver, Victoria and other locations throughout the province. The courses are aimed primarily at helping public sector employees perform job-related and personal tasks in French.

Research and Evaluation Unit

Non-credit courses in organizational research and evaluation techniques are being developed. The unit has provided research and evaluation services for several years to clients within and outside the university. For more information, please visit our website at www.sfu.ca/valuemetrics or contact us at 604.291.5186/5071.

Centre for Online and Distance Education

The centre, working in partnership with the academic units, offers courses leading to majors, minors, certificates, diplomas and in the case of the Bachelor of General Studies, the full degree. Students may complete programs through distance/online study.

The Centre offers courses and programs in the following areas: archaeology, biological sciences, Canadian studies, communication, community economic development, computing studies, contemporary arts, criminology, First Nations studies, French, geography, German, gerontology, history, humanities, Japanese, kinesiology, linguistics, mathematics, philosophy, political science, psychology, sociology and anthropology, statistics, and women’s studies.

Students registering in courses that are offered through the Centre for Online and Distance Education are governed by the same regulations and follow the same admission and registration procedures as students taking other university credit courses. Simon Fraser University students can register in day, evening or distance/online courses, or a combination thereof. For more information regarding programs and course availability visit www.sfu.ca/cede, e-mail cde@sfu.ca or telephone 604.291.3524; 1.800.663.1411 (toll free in BC).

Certificates, Diplomas and Non-Credit Courses

In addition to the degree credit study opportunities it offers, Continuing Studies develops and offers certificates, diplomas and non-credit courses in a broad variety of disciplines. Developed in association with university faculty members and professional organizations and adding to the richness of Continuing Studies’ wide range of individual courses, workshops and seminars, these programs extend university expertise to the community and bring community knowledge and priorities into the university.

Certificate Programs

Basic Interpreter Program

This program provides students with the fundamental skills of interpreting through hands-on practice, and focuses on language enhancement for both English and the student’s native languages.

Business Writing, Public Relations and Marketing Communication

Designed with the business writer in mind, this program equips participants with the skills on which they will draw to prepare all manner of business documents, from marketing materials to position papers, and from speeches to advertising copy.

Editing

Designed to assist participants to sharpen their eye, clarify their thoughts and learn to write, edit and proofread copy efficiently, this program provides participants with the skills, knowledge and confidence needed to effectively bridge the distance between writers, publishers and readers.

English Language and Canadian Culture

This program teaches participants to communicate effectively by building reading, writing, listening and speaking skills while gaining a working knowledge of the Canadian cultural context.

Management

This program has been designed for individuals who want to develop their professional skills and master management concepts and techniques. It is an intensive, part-time program. Courses can be taken individually, as well as applied toward the certificate. Students enrolled in the Certificate Program in Management may consider concurrently earning designations with various professional associations, including the Canadian Institute of Management, the Insurance Institute of Canada, the Risk and Insurance Management Society, and the Purchasing Management Association, among others.

Publishing

Participants in this program work through the fundamentals that are important to all aspects of publishing: writing, editing, proofreading, design, production, and process.

Technical Communications

Technical communications are an essential component of the high tech sector in the creation of documents that are used to train and support users of software and hardware products. Also essential in other business sectors and government, technical communicators produce training materials, policy and procedure manuals, and a variety of other organizational documents.

Urban Design

This interdisciplinary program features two- and three-day intensive courses taught by leading urban design practitioners who emphasize the economic, social and environmental aspects of urban design. The program includes both theory and practice through lectures, site visits, case studies, group projects, and assignments which are designed to enhance mid-career urban design skills and create a synergy between the classroom and the workplace. Drawing on the expertise of architects, landscape architects, planners, engineers, economists, sociologists, real estate professionals, lawyers, and the collective knowledge and experiences of the public, this program encourages interdisciplinary discussion on current western Canadian urban design issues.

The Writer’s Studio: Certificate in Creative Writing

Through a blend of courses, readings and working with mentors one-on-one and in groups, this program emphasizes learning in community with other local writers and provides participants with opportunities to develop and finish a significant portion of a manuscript. This program also includes working on the editorial, design, and production of Emerge, an anthology of student work.

Diploma Programs

Advanced Interpreter Program

This program is a multidisciplinary and interdisciplinary program in which student interpreters develop an understanding of cross cultural communication, international politics and economies, institutional structures and dynamics, social and cultural studies, and linguistic skills. Students have the opportunity to perform interpretation at a variety of public and private sector institutions.

Management Skills in Advanced Technology

This program covers the essential skills and knowledge required of managers in technically oriented businesses, and includes study of the principles of human and organizational behavior, resource allocation, demand forecasting, economic and financial analysis, project management, sales and marketing, eBusiness strategies, operations, business planning, writing and public speaking.

Non-credit Courses

Continuing Studies offers a broad variety of unique non-credit courses, and certificate and diploma programs frequently spawn new, complementary short courses, workshops and seminars.

All non-credit short courses, workshops, seminars, colloquia and conferences, round-tables and dialogues are developed with the approval of, and are sponsored by, an academic department or academic advisory committee. Most programs have external partners from the public and private sectors, all levels of government and community groups.

The following are the non-credit programming units in Continuing Studies:

- Applied Sciences Programs
- City Program
- Community Education Programs
- Conference Services
- Dialogue Programs
- English Language and Culture Program
- Interdisciplinary Programs
- Interpretation and Translation Program
- Language Programs
- Management and Professional Programs
- Opera Studies Program
- Science Programs
- Seniors Program
- Writing and Publishing Program

Programs are also developed in partnership with the Chief Dan George Centre for Advanced Education.

For more details about Continuing Studies courses, public lectures, seminars and workshops, visit our website at www.sfu.ca/cstudies.
Co-operative Education

1100 Maggie Benston Student Services Centre, 604.291.3080 Fax, www.sfu.ca/coop

Director
Ms. N. Johnston, 604.291.3836

International Co-ordinators
Ms. T. Behrisch, 604.291.5649
Ms. C. Wakelin, 604.291.5649

Bridging Online Co-ordinator
Ms. A. Sator, 604.291.6745

Curriculum Development Co-ordinator
Ms. Q. Beck, 604.291.6743

Applied Sciences Programs
Mr. T. Botelho, Program Manager 604.291.5954, 5138 Academic Quadrangle

Arts Program
6046 Academic Quadrangle, 604.291.5875 Fax
Ms. P. Johnston, Program Manager, 604.291.3041
Ms. C. Rose, 604.291.5751
Ms. E. Lewis, 604.291.3776

Business Administration Program (including CA)
2310 Lohn Building, 604.291.5922 Fax,
Mr. J. Hisieh, 604.291.3308
Ms. Y. Jin, 604.291.3270
Ms. M. Klementski, Program Manager, 604.291.4993
Ms. A. Lee, 604.291.5540
Ms. T. Laflèche, (604) 268-6688

Communication Program
6139 Robert C. Brown Hall, 604.291.4024 Fax,
Ms. M. Shimizu, 604.291.3862
Ms. E. Wah, 604.291.5542

Computing Science Program
9917 Applied Science Building, 604.291.5829 Fax,
Ms. H. Chicoine, 604.291.3917
Ms. S. Tonsaker, 604.291.3239
Mr. N. Chima, Surrey campus, 604.268.7430

Engineering Science Internship Program
9827 Applied Science Building, 604.291.4951 Fax,
Ms. P. Scott, 604.291.5806
Mr. A. Jenkins, 604.268-6703

Kinesiology Program
K9820 Shrum Science Centre, 604.291.3040 Fax,
Ms. D. Bernister, 604.291.4541

Science and Environment Program (including Mathematics, Statistics and Actuarial Science, Management and Systems Science)
604.291.3031 Fax
Mr. P. DeGrace, 604.291.3115, 7130 Robert C. Brown Hall
Ms. M. Fetterly, 604.291.4654, 8108A South Science Building
Ms. D. Bartlette 604.291.4694, C9033 South Science Building
Mr. E. Simons, Program Manager, 604.291.4123, K10513 Shrum Science Centre
Ms F. McLafferty, 604.291.5934, 8108B South Science Building

Co-operative Education is an international model of enriched education which integrates academic studies with learning through related work experience. Co-operative Education reflects the co-operative relationship between the educational institution, the employer and the student.

Admission to the Program
Co-ops are open to Canadian citizens, permanent residents, and visa students. Visa students in co-op programs are eligible for work permits which are only valid for jobs arranged through the co-op program. Co-op is mandatory for the School of Engineering Science (see “School of Engineering Science” on page 131) and optional for all others.

Application Procedure
Co-operative Education has an application process, which includes completing the Bridging Online (BOL) course (except for the School of Engineering Science). See www.sfu.ca/coop/bol for details.

In-Course Application
See www.sfu.ca/coop for information. Students should attend program specific information meetings held the first and/or second week of classes, and should contact appropriate co-ordinators as early in their university career as possible, but no later than one semester prior to the first work term. Transfer students should contact the co-op office as soon as possible and must complete at least one study semester before engaging in a work term. Students transferring from an approved co-op program elsewhere, and who have successfully completed work terms, can receive transfer credit for those work terms up to the point that they still must complete 50% of their degree program, including work terms, here at SFU. Students are urged to apply to co-op as early as possible. Students may participate in recommended learning-based and employability skills workshops that improve their chances of successful employment.

Acceptance into the Program
Acceptance into the co-op employment process is based on academic performance and entry interviews where motivation, interpersonal, and communication skills are evaluated. Students must normally have 45-60 credit hours and a CGPA of at least 2.5 before participating in the co-op employment process. Some departments have additional requirements and students should check with their program of interest.

Participation in the Program
The Employment Process
Once a student is accepted into the pre-employment program and completes the required curriculum, the student can participate in the employment competition. Job opportunities are identified and posted through co-op, students select those for which they wish to compete, they may be selected for interview, and they may or may not receive an offer. They have the option to accept or decline an offer based on contractual obligations and ethics associated with progression in the employment process. These obligations are made clear to all participants at each point in the employment process. Once a position is accepted, students are obligated to that work term. Students are required to have a practicum registered with academic records (Student Services) once they have accepted employment. Application form submission and/or participation in the job competition indicates a commitment to the program and acceptance of the following:
• permission for release to prospective employers of copies of transcript
• acceptance of the job match
• agreement to register in the appropriate co-operative education course
• agreement to inform SFU of the acceptance of any co-op employment position obtained outside of the match
• agreement to complete four (five for chartered accountant) co-op education work terms
• all accepted students are responsible for following the policies and procedures outlined in the Co-op Student Handbook that is posted on the web at www.sfu.ca/coop/student_handbook.html.

Operation of the Program
The co-op co-ordinators facilitate all pre-employment student preparation, negotiate work terms, meet employers to establish employer needs, and meet with students to monitor progress. They oversee job competition and visit students on the job, counsel and advise students, and deal with special problems.

Specialty Options
Students may also find or create their own opportunities, locally or abroad. Guidance is provided for those seeking their own employment and wishing to count it as a co-op term. Self-initiated jobs must be approved by the co-op program in advance of the work term, and students are required to register and pay for the appropriate co-op practicum. International co-op opportunities continue to expand, particularly in Asia. Specialty programs such as Co-op Japan enable students to access otherwise difficult and remote job markets. Students are encouraged to contact the international co-op co-ordinators, Tanya Behrisch or Caroline Wakelin at 604.291.5649 for more information.

Work Sequence
Work study charts on the next page show two possible work term and study patterns. An alternating sequence, beginning before year three, provides the best learning structure. Other combinations can be arranged to meet student and employer needs, as long as employer requirements for students in the fall and spring terms are met. Students may not normally end their chosen sequence on a work term. (See samples on the next page.)

Co-op Fees
An application to co-op fee and a registration fee is charged for each four month work practicum in which the student enrolls. These fees are tax deductible. For information, see “Undergraduate Fees” on page 52.

Graduation Requirements
Four work terms (five for the CA program) must be successfully completed for a degree with a co-op designation. Successful work term completion includes a passing grade (comprised of both a work project evaluation and a work performance evaluation) and compliance with minimum standards of participation. (A work term is typically full time employment for 13-16 weeks in duration.)

Certificate Option
Students (except engineering science) who successfully complete three work terms are eligible for a certificate of completion. The same performance criteria as noted above are required for the certificate option. Students who receive a certificate do not receive recognition on their diploma, nor are they eligible for further work terms in their current program.
## Sample Work/Study Sequence

| Year   | | Semester I | September to December | Semester II | January to April | Semester III | May to August |
|--------|----------------|-----------------------|-------------|-----------------|---------------|--------------|
| Year 1 | | study semester #1 | 15 credit hours | study semester #2 | 15 credit hours | study semester #3 | 15 credit hours |
|        | | 15 cumulative credit hours | | 30 cumulative credit hours | 45 cumulative credit hours | Co-op program intake | BOL II |
| Year 2 | Work term #1 | study semester #4 | 15 credit hours | Work term #2 |
|        | | 15 credit hours | 60 cumulative credit hours | |
| Year 3 | | study semester #5 | 15 credit hours | study semester #6 | 15 credit hours |
|        | Work term #3 | 75 cumulative credit hours | 90 cumulative credit hours | |
| Year 4 | Work term #4 | study semester #7 | 15 credit hours | study semester #8 | 15 credit hours |
|        | | 15 credit hours | 105 cumulative credit hours | 120 cumulative credit hours | | | | | |
Undergraduate Semester in Dialogue

Room 3309, Harbour Centre site, 515 West Hastings Street, Vancouver, BC V6B 5K3, 604.268.7894 Tel, 604.268.7892 Fax, www.sfu.ca/dialogue/undergrad

Director
M.L. Winston BA, MA (Boston), PhD (Kansas)

The Undergraduate Semester in Dialogue provides a unique opportunity to affirm the role of a university to educate students into productive, creative, well-balanced, thoughtful, and reflective members of society.

The full time, one semester, 15 credit Undergraduate Semester in Dialogue will provide intensive mentoring, strong emphasis on communication skills, an ability to think critically and evaluate effectively, a perspective that encourages discipline bridging, and an opportunity to learn from, and network with, stimulating and accomplished individuals from off-campus.

Each semester's program will consist of a core course (DIAL 390) that will be similar for each offering, and individual topics varying with each offering that are focussed on a subject that encourages broad interdisciplinary approaches (DIAL 391 and 392).

Admission to the program will be by application. Students should consult with their department prior to their Dialogue semester to determine the application of DIAL credit hours to fulfill major, minor or elective course requirements.

Admission decisions will be made no later than four months prior to program start. A course outline for each offering of DIAL 390, 391 and 392 will be available prior to the application deadline.

Program Admission Requirements
Students must have completed 45 credit hours prior to beginning the Dialogue program. Individual courses may have other prerequisites. Application forms, information about course content, and other information are available from the program office.

These courses also are eligible to fulfill electives in post baccalaureate diploma programs.
Graduate Studies

Dean J.C. Driver, MA (Camb), PhD (Cal)
Tel 604.291.4255
Fax 604.291.3080

Associate Dean T. Heift, I and II Staatsexamen
(Weingarten), MA, PhD (S Fraser)
Tel 604.291.4255
Academic Honesty
All members of the University community share the responsibility for the academic standards and reputation of the University. Academic honesty is a cornerstone of the development and acquisition of knowledge. Academic honesty is a condition of continued membership in the university community. Academic dishonesty, like other forms of dishonesty, is misrepresentation with intent to deceive or without regard to the source or the accuracy of statements or findings. Academic dishonesty, in whatever form, is ultimately destructive of the values of the University; it is, furthermore, unfair and discouraging to the majority of students who pursue their studies honestly. Scholarly integrity is required of all members of the University.

The following examples are representative but not exhaustive of activities constituting academic dishonesty: plagiarism (presenting the work of another person as your own); submitting the same work more than once without prior approval; cheating; impersonation; submitting false records or information; stealing or destroying the work of another student; removing, mutilating, misplacing or destroying books or other library material; unauthorized or inappropriate use of computers, calculators and other forms of technology in course work, assignments or examinations.

The University code of academic honesty is contained in policy T10.02 or in the Course Timetable and Exam Schedule published every semester, or on the Web via http://students.sfu.ca.

Penalties for Acts of Student Misconduct
Penalties imposed by the University for misconduct may include one or more of the following: a verbal or written reprimand, exclusion from specified areas of the University, restitution or other ameliorative measures, suspension or expulsion from the University.

1.1 Degrees Offered
Listed under each faculty.

1.2 Administration of Graduate Studies
Dean of Graduate Studies
The dean is responsible for the general supervision of graduate work at the University and chairs the senate graduate studies committee.

Director, Graduate Records, Admissions and Registration
The director is responsible for registration of students, assessment of fees, maintenance of records, and other administrative duties.

The committees responsible for the supervision of graduate students are the supervisory committee, graduate program committee, the faculty graduate studies committee and the senate graduate studies committee. The functions of these committees in relation to individual students are as follows.

Supervisory Committee (see 1.6.4)
The student's supervisory committee helps the student define and develop a program of studies and reports on the student's progress to the graduate program committee. The supervisory committee forms part of the student's final examination committee.

Graduate Program Committee
The graduate program committee is responsible for recommending admission, reviewing the student's progress and arranging for the supervision and examination of the student. For most graduate programs, the graduate program committee is the departmental graduate studies committee. In the Faculties of Business Administration and Education, the graduate committee is the faculty graduate studies committee.

Faculty Graduate Studies Committee
This committee makes recommendations to the senate graduate studies committee on such matters as awarding of degrees, examining committees for doctoral candidates, changes to established programs and establishment of new programs.

Senate Graduate Studies Committee
This committee has the final authority on admissions and the administration of senate regulations which concern graduate work. This committee serves as the graduate program committee for students enrolled under special arrangements.

Graduate Studies Information
A wide range of additional information on graduate studies at Simon Fraser University may be found on the University's website (www.sfu.ca/dean-gradstudies). In addition, most departments offer publications describing their graduate programs. These are available directly from the departments and are usually posted on the department's web sites.

1.3 Admission
1.3.1 General
A student may seek admission to a graduate diploma, master's or doctoral program. A student who is not qualified to enter a specific program may seek admission to the University as a qualifying student under the provisions of paragraph 1.3.6.

For admission to post baccalaureate programs, refer to the undergraduate section of this Calendar. Before applying for admission, the student should obtain information about admission requirements and procedures. This information can be obtained from the websites of departments and faculties, or by contacting the appropriate program's graduate secretary. Application forms are also available on the Dean of Graduates Studies website.

Applicants meeting the minimum University requirements for admission to a graduate diploma program are as follows:

- a student who is not qualified to enter a specific program may seek admission to the University as a qualifying student under the provisions of paragraph 1.3.6.

- a student who is not qualified to enter a specific program may seek admission to the University as a qualifying student under the provisions of paragraph 1.3.6.

- a student who is not qualified to enter a specific program may seek admission to the University as a qualifying student under the provisions of paragraph 1.3.6.

1.3.2 Admission to a Graduate Diploma Program
The minimum University requirements for admission to a graduate diploma program are as follows:

- a student who is not qualified to enter a specific program may seek admission to the University as a qualifying student under the provisions of paragraph 1.3.6.

- a student who is not qualified to enter a specific program may seek admission to the University as a qualifying student under the provisions of paragraph 1.3.6.

- a student who is not qualified to enter a specific program may seek admission to the University as a qualifying student under the provisions of paragraph 1.3.6.

1.3.3 Admission to a Master's Program
The minimum University requirements for admission to a master's program are as follows:

- a student who is not qualified to enter a specific program may seek admission to the University as a qualifying student under the provisions of paragraph 1.3.6.

- a student who is not qualified to enter a specific program may seek admission to the University as a qualifying student under the provisions of paragraph 1.3.6.

- a student who is not qualified to enter a specific program may seek admission to the University as a qualifying student under the provisions of paragraph 1.3.6.

- a student who is not qualified to enter a specific program may seek admission to the University as a qualifying student under the provisions of paragraph 1.3.6.

- a student who is not qualified to enter a specific program may seek admission to the University as a qualifying student under the provisions of paragraph 1.3.6.

- a student who is not qualified to enter a specific program may seek admission to the University as a qualifying student under the provisions of paragraph 1.3.6.

- a student who is not qualified to enter a specific program may seek admission to the University as a qualifying student under the provisions of paragraph 1.3.6.

- a student who is not qualified to enter a specific program may seek admission to the University as a qualifying student under the provisions of paragraph 1.3.6.
In exceptional circumstances, a student may be admitted with lower formal qualification than in (a) when there is significant professional experience relevant to the proposed area of scholarship. Students must satisfy any further requirements set by the graduate program committee. Students whose native language is not English may be required to satisfy the University and the graduate program committee as to their capability in English. (See also 1.3.12.)

1.3.4 Admission to a Doctoral Program
The minimum University requirements for admission to a doctoral program are as follows.

a) either
i) a master's degree from a recognized university, or the equivalent, or
ii) a bachelor's degree, with a cumulative grade point average of at least 3.5, from a recognized university, or the equivalent; or
iii) completion of at least 75% of the course work credits required for the relevant department's Master's program, with a cumulative grade point average of at least 3.5. All graduate courses, whether taken at this University of another university, shall be considered in the calculation.

and

b) submitted evidence that the applicant is capable of undertaking substantial original research. Normally, such capability will be judged from letters of reference from qualified referees, and the completion of a master's thesis or other scholarly work.

Students must satisfy any further requirements set by the graduate program committee. Students whose native language is not English may be required to satisfy the University and the graduate program committee as to their capability in English. (See also 1.3.12.)

1.3.5 Admission Under Special Arrangements
Exceptionally able applicants who wish to work for a master's or doctoral degree outside or between existing programs at Simon Fraser University may apply to work under special arrangements. A student applying for special arrangements must have a well developed plan of studies in an area that can be shown to have internal coherence and academic merit, and in which the university has appropriate expertise and interest among its faculty members.

Graduate students applying or working under special arrangements are required to conform to Senate regulations for graduate students. However, there are additional regulations which concern only those applying or working under special arrangements. Enquiries about these regulations should be directed to the Dean of Graduate Studies by December 1st of each year for admission to the fall semester.

Students working under special arrangements may be required to take a selection of courses from existing programs.

1.3.5.a Cohort Special Arrangements
Cohort-based special arrangements programs are designed to meet the educational needs of specific student groups in fulfilling the requirements for a master's degree where these needs cannot be met within existing programs. Each program will integrate studies from across two or more departments, schools or faculties and will involve a curriculum and requirements recommended by each program's graduate program committee and approved by the senate graduate studies committee. Students may undertake this degree program only through specific admission to the cohort program. Admission criteria, degree requirements and any other special conditions for a particular cohort special arrangements program must be approved in advance by the senate graduate studies committee; these may not be below the minimum admission requirements for the master's program in the relevant department.

In some instances, tuition fees may differ from the regular graduate fee schedule published in the Calendar, and will be announced separately.

1.3.6 Admission as a Qualifying Student
Normally, qualifying students will be working either to improve cumulative grade point averages in order to meet the minimum University requirement, or to make up deficiencies in their academic record in order to satisfy the graduate program committee in their area of interest. An applicant may be recommended for admission as a qualifying student when it is expected that the admission requirements for a master's or a doctoral program can be met through the satisfactory completion of no more than 30 credit hours of specified courses. A qualifying student who has completed the make-up work may then apply under 1.3.3 or 1.3.4 for admission to a master's or doctoral program.

The minimum University requirements for admission as a qualifying student are as follows.

a) a bachelor's degree, or the equivalent
b) submitted evidence of academic ability, usually in the form of references from qualified referees

Admission as a qualifying student does not guarantee future admission to a master's or doctoral program unless the offer of admission states that satisfying specific requirements within a specific period of time will result in automatic admission to the program.

Normally a student will be admitted with qualifying status for a maximum of one year (three consecutive semesters).

1.3.7 Admission as a Non-degree Student
Normally, a non-degree student at the graduate level has at least a bachelor's degree, or the equivalent, is admitted in order to take specified courses, but is not seeking a degree from this University. A non-degree student will not be permitted to enrol in undergraduate courses.

Application is through the graduate program committee in the department in which the student wishes to work; applicants are advised to contact the department before submitting an application (see 1.3.1). Transcripts of previous university work (or proof of obtaining a degree) will be required at the time of application, but letters of reference will not necessarily be required.

No credit will be given towards any degree offered by the University for courses taken as a non-degree student except, under unusual circumstances, on petition to the senate graduate studies committee.

1.3.8 Conditional Admission
Conditional admission may be offered to an applicant who is substantially ready to undertake a program but who has not completed all admission requirements at the time of application. An offer of conditional admission will specify the remaining requirements to be met and a limited time period within which the requirements must be met. Normally, the requirements must be fulfilled either prior to registering in the program, or within the first semester of registration.

1.3.9 Admission as an Exchange Student
Bona fide graduate students at other universities who wish to take courses at Simon Fraser University, not leading to a degree at this University, will be admitted to take specific graduate courses on the recommendation of the chair of the department (or equivalent officer) and the dean of graduate studies at the other university, and with the permission of the graduate program committee in the relevant department and the dean of graduate studies at Simon Fraser University.

1.3.10 Application for Admission
Application forms may be obtained from the Office of the Registrar, from the Dean of Graduate Studies website, or from any department. Completed forms and accompanying materials must be submitted to the department before the deadline specified by the department. Applicants are advised to check with the appropriate department as to the prevailing application procedures and deadlines for the graduate program in which they are interested. Applicants are advised that deadlines for applications for awards and teaching assistantships may be earlier than the deadlines for application to a graduate program.

All decisions on graduate admissions are made by the senate graduate studies committee, on recommendation from graduate program committees. Decisions on admissions shall be final. Final approval of admission for non-degree students or exchange graduate students is by the dean of graduate studies.

1.3.11 Application to Take a Second Master's or Doctoral Degree
Students who have a master's or a doctoral degree (either from Simon Fraser University or another university) may apply to take a second master's or doctoral degree under the following constraints.

a) no course work taken for the first degree shall count towards the second.
b) none of the research done for the first degree shall be used for the second.
c) none of the time spent in residence for the first degree shall count towards the residence for the second degree.

1.3.12 English Language Competence
English is the language of instruction and communication in the University. Accordingly, an applicant whose primary language is not English or whose previous education in English has been conducted in another language must demonstrate command of English sufficient to pursue graduate studies in the chosen field. Applicants normally will be required to achieve a satisfactory score on a standardized English test acceptable to the University. This test must include a writing component. The Test of English as a Foreign Language (TOEFL) combined with the Test of Written English (TWE) are acceptable for this purpose. The IELTS (International English Language Testing System) is also acceptable. The minimum University requirements for test scores is TOEFL 570 (computer based score is 230), TWE 5 and IELTS overall band score of 7.0; some graduate programs have higher requirements, as described elsewhere in this Calendar.

Further details about the above tests may be obtained from the following:
TOEFL and TWE – Education Testing Service, CN 6151, Princeton, NJ, 08541-6151 USA
Other acceptable English tests – Director, Graduate Records, Admissions and Registration

1.3.13 Certificate Programs
A certificate program consists of approved combinations of graduate courses taken from at least two different departments. Graduate certificate programs are intended to be both thematic and interdisciplinary.
Courses taken for credit in a graduate degree program may be applied to certificate programs. A certificate program must include a minimum of four courses and a minimum of 12 credit hours. Certificate programs may be taken only by students already registered in a master's or doctoral program at Simon Fraser University.

Certificates are awarded at the time of convocation.

1.4 Registration

Students are registered in one of two different types of programs. In 'per semester fee' programs, students are charged a standard fee for each semester of registration. In 'per credit fee' programs, students are charged a fee based on the number of credits taken. (See "Graduate Fees" on page 252 for current tuition fee rates.) All students are in per semester fee programs except for students in per credit fee programs as listed under Graduate Fees (page 252).

1.4.1 Date of Entry

University regulations permit graduate students to enter programs at the beginning of any semester, unless a program requires students to start in a specific semester.

1.4.2 Registration

Registration begins two months before the start of each semester and must be completed by the Friday preceding the start of classes; see "Academic Calendar of Events" on page 10. New students are allowed an additional two weeks to finalize their registration, without financial penalty. The course or research-related work for which the student registers must have the approval of the chair of the graduate program committee and of his/her senior supervisor, once the senior supervisor is appointed. In addition, registration for courses taken outside the student's department must have the approval of the course instructor. Students going on leave are required to register (see "1.8.4 Application to go on Leave" on page 249).

1.4.3 Continuity of Registration

Students in per semester fee programs are required to register in every semester until all requirements for the degree have been fulfilled. This includes students registered on leave. A student who does not register is considered to have withdrawn from the University. (See 1.8.4 for regulations on student leave.) Students in per credit fee programs register only in those semesters in which they are taking courses or working on other requirements, such as a project or field exam. A student in a per credit fee program who does not register in at least one of three consecutive semesters is considered to have withdrawn from the University.

1.4.6 Course Audit

Graduate students may audit graduate courses, with permission of the instructor, senior supervisor and graduate program chair of the student's department. Such audits are recorded as AU on the student's transcript.

Prior to registration, the student and instructor must agree on the requirements for auditing the class. These requirements must include regular attendance at class meetings, completion of readings and participation in class activities.

Audited courses will not count toward degree requirements.

1.4.7 Co-operative Education

Co-operative education integrates work experience and graduate studies. The name reflects the co-operative relationship among the University, employer and student. Practical experience from work terms is related to the student's major interests within the graduate program. A number of graduate programs have been approved, by the relevant graduate program committee, for co-operative education (co-op). These are listed below.

- business administration (specialist MBA)
- chemistry (MSc)
- economics (MA)
- environmental toxicology (MET)
- mathematics (MSc)
- resource and environmental management (MRM)
- statistics and actuarial science (MSc)

The list of approved programs is subject to change. In addition, some faculties may permit co-op work terms for individual students on a case-by-case basis. Interested students should consult the co-op co-ordinator.

The application to enrol in co-op is subject to departmental approval. Each department has a specific course for the co-op work term or practicum.

1.5 Academic Standing

1.5.1 Normal Grading System

The following grades are used at the graduate level in the University.

- A+ = 4.33 points (in use since 2002-3)
- A = 4.00 points
- A- = 3.67 points
- B+ = 3.33 points
- B = 3.00 points
- B- = 2.67 points
- C+ = 2.33 points (in use since 2002-3)
- C = 2.00 points
- F = 0 points
- N = 0 points

A student in a master's or doctoral program must maintain a cumulative grade point average (CGPA) of 3.0 in courses taken at Simon Fraser University.

A student in a diploma program must maintain a cumulative grade point average (CGPA) of 2.5 in courses taken at Simon Fraser University. Courses graded at a satisfactory/unsatisfactory basis are not included in the grade point average.

When a student is working on a thesis, extended essay or project as part of the requirements for the degree, the notation IP (in progress) shall be entered on the transcript. IP is not a grade and is not used in calculating the student's CGPA.

In exceptional circumstances, the grade for a course may be deferred for a specified period determined by the course instructor. This shall be entered as DE in the student's record. If the grade is not received by the director, graduate records, admissions and registration by the last day of the first month of the next semester, the DE grade will automatically be converted to an F. When the grade for a course is not deferred and no grade is received by the director, the notation N will be placed in the student's record. For the purposes of calculating the CGPA, N counts for 0 points.

A course that is dropped before the end of the second week of the semester will not be recorded on the student's transcript. A course that is dropped within the third to eighth weeks (inclusive) will be recorded on the transcript with the notation WD. No course may be dropped after the end of the eighth week and before the end of the twelfth week, except in extenuating circumstances approved by the director, graduate records, admissions and registration. Courses dropped under extenuating circumstances will receive a WE notation. See "Academic Calendar of Events" on page 10 for dates that apply each semester. WD and WE grades carry no credit value and are not used in GPA calculations.

1.5.2 GN Notation

The notation GN (grade not reported) may be used if circumstances beyond the control of the University make it impossible for grades to be assigned for a course. The notation has no numerical equivalent and does not affect either the semester grade point average or cumulative grade point average.

1.5.3 Satisfactory/Unsatisfactory Grading (S/U)

With the approval of senate graduate studies committee, a department may require that a designated course be graded satisfactory/unsatisfactory (S/U) for all students in the course. An individual student may request to take a course on an S/U basis by applying to the supervisory committee. If that committee concurs, the request will be submitted to the graduate program committee for final approval. If the course is outside the student's department, the approval of the other graduate program committee must also be obtained.

Having registered in a course on any grading basis, a student may not change to another grading basis for that course.

None of the student's minimum course work requirement under 1.7.2 may be taken S/U. Neither an S nor a U will count in the CGPA, but the grade received shall be recorded on the transcript.

1.5.4 CGPA Required For Continuation and Graduation

A student in a master's or doctoral program is required to maintain a CGPA of at least 3.0. A student in a graduate diploma program is required to maintain a CGPA of at least 2.5. Failure to meet the minimum CGPA is evidence of unsatisfactory progress and the matter will be considered by the graduate program committee as required under the Procedure for the Review of Unsatisfactory Progress in regulation 1.8.2.

Under no circumstances will a student, whose CGPA is below 3.0, be awarded a graduate degree.

Under no circumstances will a student with a CGPA below 2.5 be awarded a graduate diploma.

1.5.5 Graduate Students Retaking a Course

A graduate student may retake a course under the following conditions.

a) when the same numbered course covers different material in different semesters (many special topics and directed readings courses are of this nature).

b) when the student wishes to improve the grade earned in the course. Permission of the graduate program committee is required.

Under a), both grades are recorded on the student's transcript, and the grade and the credit hours for both iterations of the course are used for the calculation of the CGPA and towards the credit hours required for the degree. Under b), both grades are recorded on the student's transcript with the notation that the course was retaken to improve the grade. However, only the better grade is used in calculating the CGPA and the credit hours for the course are used only once towards the requirements for the degree.

A student must indicate at the time of registration under which of the two conditions the course is being retaken. The correctness of this indication must be certified by the chair of the graduate program committee.
1.6 Supervision

1.6.1 General
When a graduate student has been admitted, the graduate program committee will exercise general supervision and counselling for the student through the chair(s) of the graduate program committee or a faculty member designated by the chair, until a senior supervisor has been appointed.

1.6.2 Supervision of a Qualifying Student
A qualifying student comes under the general supervision of the graduate program committee, exercised through the chair of that committee or a faculty member designated by the chair.

1.6.3 Senior Supervisor
In consultation with the student, the graduate program committee will appoint a senior supervisor as soon as possible after admission to the graduate program. Normally, this appointment shall be made no later than the beginning of the second semester of full time equivalent enrolment after the student’s admission, although with the permission of the senate graduate studies committee, departments may define a later date. The senior supervisor is the person principally responsible for supervision of the student throughout the degree program. A senior supervisor must hold the rank of assistant professor or above at Simon Fraser University.

A senior supervisor who is planning to be off campus for more than three months shall arrange for proper supervision of the student during this absence. The graduate program committee and the dean of graduate studies shall be informed in writing of the arrangement.

A senior supervisor is not required for students in a graduate diploma program. The director of a diploma program is responsible for roles normally assigned to the senior supervisor (e.g. advising students, signing forms).

1.6.4 Supervisory Committee
A supervisory committee is not required for students in graduate diploma programs.

In degree programs in which there is a requirement for a thesis, a project or extended essays, a supervisory committee, constituted as described below, must be established. For students in master’s degree programs that culminate in a field or comprehensive examination, the senior supervisor alone may comprise the supervisory committee. Where a supervisory committee requires members in addition to the senior supervisor, the senior supervisor, in consultation with the student, shall recommend the composition of the supervisory committee. The supervisory committee consists of the senior supervisor and at least one other person. Normally, this recommendation shall be made during the same semester in which the senior supervisor is appointed.

For degrees designated by senate as professional degrees, the other member(s) of the committee may be other suitably qualified person(s). For other graduate degrees, at least one member of the committee (in addition to the senior supervisor) must be a faculty member or an adjunct professor or a research associate at Simon Fraser University. Other members of the supervisory committee may be other suitably qualified person(s). A recommendation for a supervisory committee that includes a person who is not a faculty member at Simon Fraser University should be accompanied by a curriculum vitae of that person.

The composition of the supervisory committee, for which the senior supervisor is chair, shall be approved by the graduate program committee and sent to the dean of graduate studies for final approval. It shall be sent to the faculty graduate studies committee for information.

The supervisory committee is responsible for helping the student develop a program of study leading to a degree and for reporting to the graduate program committee at least once a year on the student's progress towards completing the degree requirements. The supervisory committee shall be available to the student for consultation on a regular basis.

1.6.5 Co-supervision
A co-supervisor may be designated when a member of the supervisory committee exercises a degree of supervision and support similar to that of a senior supervisor. Normally, a co-supervisor will be appointed if:

a) he or she is an SFU faculty member holding the rank of assistant professor or above (see 1.6.3); or
b) he or she is an SFU faculty member holding the rank of assistant professor or above (see 1.6.3).

The supervisory committee is responsible for helping the student develop a program of study leading to a degree and for reporting to the graduate program committee at least once a year on the student's progress towards completing the degree requirements. The co-supervisory committee shall be available to the student for consultation on a regular basis.

1.6.6 Change in the Supervisory Committee
Continuity of supervision is important in all graduate work. As a consequence, a change in supervisory committee, especially a change in senior supervisor, may be made only on the basis of strong reasons.

A request for a change in the supervisory committee may come from the student or any member of the supervisory committee. It shall be sent to the graduate program committee accompanied by the reasons, in writing, for the proposed change. If the graduate program committee concurs in the request, it shall be sent to the dean of graduate studies for final approval.

1.6.7 Human Subjects Ethics Review
All research plans involving human subjects must receive ethics approval. Copies of the policy (R20.01), procedures and forms for this review may be obtained from the Office of Research Services or from the University web site (www.sfu.ca/policies/research/index.htm).

1.7 Residence and Course Requirements
Minimum course work requirements are defined in 1.7.1, 1.7.2 and 1.7.4. See 1.7.6 for regulations concerning courses taken at other institutions. There is a residence requirement for all doctoral programs (see 1.7.3).

1.7.1 Requirements for the Graduate Diploma
There is no residence requirement for the graduate diploma. Candidates must complete the University minimum requirement of 22 credit hours of graduate course work. A graduate program committee may require graduate or undergraduate work in addition to the minimum requirements, either on an individual basis or, with senate ratification, for all students in the program.

1.7.2 Residence Requirement for the Master’s Degree
Master’s candidates must complete the University minimum requirement in one of the following ways.

a) successfully complete a minimum of 12 credit hours of graduate course work and submit a thesis;
b) successfully complete a minimum of 20 credit hours of graduate course work and submit at least two extended essays, or a project;
c) successfully complete a minimum of 30 credit hours of graduate course work and pass a final examination.

Not all of these options are available for every program. A graduate program committee may require work in addition to the minimum requirements either on an individual basis or, with Senate ratification, for all students in its program.

1.7.3 Residence Requirement for the Doctoral Degree
The aim of the residence requirement is that the student spend a period of time in contact with faculty members and other students. Doctoral students must register for a minimum of five semesters. On leave semesters will not count toward this minimum.

1.7.4 Course Requirements for the Doctoral Degree
There are no University course requirements for the doctoral degree. However, a student's supervisory committee, graduate program committee or the faculty graduate studies committee, may require a student to take specified courses or credit hours as part of the degree program.

1.7.5 Doctoral Thesis
All doctoral programs require a doctoral thesis based on substantial original research.
1.7.6 Courses in Master’s and Doctoral Programs
The following rules apply to the minimum course work requirement.
One half of the minimum course work of the University or departmental degree requirements must be taken at this University. None of the University minimum may be courses taken in order to qualify for admission. None of the University minimum may be undergraduate courses.
A graduate student may apply to take one or more courses at another university for credit towards a degree at Simon Fraser University under the following conditions.

a) Such applications shall be made at least one month before the course/course starts and shall be approved by the student’s supervisory committee and graduate program committee and be sent to the Dean of Graduate Studies for final approval.
b) While taking a course/courses at another university under these provisions, the student shall maintain normal registration at this University, not registration on leave.
A graduate student may apply to have credit for graduate courses taken prior to admission applied to the requirements for the degree, under the following conditions.

a) Courses must have been taken within two years of starting the SFU program
b) Courses may not have been used to earn another credential and may not have been taken as part of a qualifying year
c) application for advance credit must be made at the time of application for admission, and must be approved by the graduate program committee and the dean of graduate studies.

1.8 Progress, Withdrawal and Leave

1.8.1 Progress Evaluation
For master’s and doctoral students, the supervisory committee shall report on the student’s progress at least once each year. This report will be sent, in writing, to the graduate program committee with a copy to the student. The evaluation of student progress in coursework will rely in part on their maintenance of a CGPA of 3.0, as required by graduate regulation 1.5.4.
For graduate diploma students, a progress review will be initiated if the CGPA drops below 2.5.

1.8.2 Review of Unsatisfactory Progress
If a student’s progress appears to be unsatisfactory, the supervisory committee or the chair of the graduate program committee shall make a written report to the graduate program committee, and provide a copy to the student. That committee shall consider whether the student’s progress has been satisfactory. The graduate program committee, on consultation with the supervisory committee, if one has been appointed, may:

a) require the student to withdraw, or
b) inform the student of the unsatisfactory progress and require the student to improve in specific ways in a specific period of time.
The student concerned has the right to appear before the graduate program committee when the case is considered, and may submit any materials relevant to the case. A student who is required to withdraw shall be informed, in writing, with copies to the dean of graduate studies and the assistant director, graduate studies. If required to improve within a specific period of time, the student shall be informed in writing as to what precisely is required, with copies to the dean of graduate studies and the director, graduate records, admissions and registration.
Any decision of the graduate program committee under the provisions of this section may be appealed to the senate graduate studies committee through the dean of graduate studies. The student has the right to appear before the senate graduate studies committee when the case is heard. The decision of that committee shall be final.

1.8.3 Withdrawal from Courses and from the University
Permission of the senior supervisor and the chair of the graduate program committee is required to withdraw from a course. If the senior supervisor is not yet appointed, or if the student is in a graduate diploma program, permission of the chair of the graduate program committee is required. If such permission is granted, a student may withdraw from a course without academic penalty up to the end of the ninth week of classes in any semester.
Under extenuating circumstances, a student may withdraw from a course without academic penalty during the tenth to the 12th week of classes. Such circumstances must be beyond the control of the student (e.g., medical or financial crisis); under such circumstances, therefore, 898 (Master’s Thesis Research), 899 (PhD Research) or a similar course may be added, as appropriate. Permission of the senior supervisor and the chair of the graduate program committee is required.
A student may withdraw from the University at any time by notifying the chair of the graduate program committee and the director, graduate records, admissions and registration.
A student who has withdrawn from the University and who wishes to re-enter shall apply for permission under the same conditions as any other applicant.

1.8.4 Application to go on Leave
This regulation applies only to students in per semester fee programs.
Students in per semester degree programs are expected to maintain continuous registration (see 1.4.3). However, a student may apply to go on leave if both of the following conditions are satisfied:
a) a situation arises which makes it necessary to interrupt the graduate program; and
b) no substantial use will be made of University facilities.
Permission to register on leave must be approved by the student’s supervisory committee and the graduate program committee. Students on leave are required to register during the normal registration period for each semester by indicating on leave status when registering.
Students who wish to register on leave for more than three sequential semesters must submit a written explanation for all subsequent on-leave registrations. Such applications require approval from the Dean of Graduate Studies.
The on-leave fee may be waived in exceptional circumstances, such as those resulting from accident, illness or parenting responsibilities.

1.9 Preparation for Examinations

1.9.1 Examining Committee for a Master’s Degree Candidate
Each candidate for a master’s degree shall be examined on the thesis, extended essays or project. With the exception of designated ‘professional’ master’s programs (see 1.10.6), each examining committee shall have the following minimum composition.
a) the chair of the student’s graduate program committee, or his/her designate, who shall be a non-voting chair of the examining committee. If the chair of the graduate program committee is also on the student’s supervisory committee, he/she shall designate a member of faculty at this University, who is not a member of the student’s supervisory committee, as chair.
b) all members of the student’s supervisory committee.
c) a member of faculty at the university, or a person otherwise suitably qualified, who is not a member of the student’s supervisory committee. For those seeking a degree under special arrangements, this person shall be from outside the University.

1.9.2 Preparation for Examination of Master’s Thesis
Preparation for the examination of a master’s thesis shall not take place until the thesis is substantially complete and in the format laid down in Preparation of Thesis, Extended Essays and Project: Regulations and Guidelines (revised February 1997).
The candidate’s supervisory committee shall make a recommendation to the chair of the graduate program committee concerning the date, place and time of the thesis examination and the composition of the examining committee in conformity with 1.9.1.
Upon approval of the chair of the graduate program committee, this recommendation, with the thesis title and an abstract, shall be sent to the director, graduate records, admissions and registration for entry into the University’s records. The examining committee composition shall reach the director at least four weeks before the examination date. At this time, the chair of the graduate program committee will notify the University community of the intended time and place of the examination.
At least two weeks before the date of the thesis examination, unbound copies of the completed thesis shall be distributed to the examining committee by the chair of the graduate program committee, and one copy shall be made generally available for inspection by interested members of faculty and students. Department rules may require earlier submission of the completed thesis.
If the date or place has been changed, the chair of the graduate program committee will notify the University community.
The examination of the thesis shall take place under the regulations for thesis examination given in 1.10.1.

1.9.3 Examining Committee for Doctoral Thesis
Each candidate for a doctoral degree shall be examined on the thesis. Each examining committee shall have the following minimum composition:
a) the chair of the graduate program committee, or designate, who shall be a non-voting chair of the examining committee. If the chair of the graduate...
program committee is also on the student's supervisory committee, he shall designate a member of faculty at the University, who is not a member of the student's supervisory committee, as chair.
b) all members of the student's supervisory committee
c) a member of faculty at the University or a person otherwise suitably qualified, who is not a member of the student's supervisory committee
d) an external examiner who shall be specifically qualified in the field of the thesis and not be a member of faculty at the University

1.9.4 Preparation for Examination of Doctoral Thesis
Preparation for the examination of a doctoral thesis shall not take place until the thesis is substantially complete and in the format laid down in Preparation of Thesis, Extended Essays and Project: Regulations and Guidelines (revised February 1997).

The candidate's supervisory committee shall make a recommendation to the chair of the graduate program committee concerning the composition of the examining committee (in conformity with 1.9.3) and the date, place and time of the thesis examination. Upon approval by the chair of the graduate program committee, this recommendation, with the thesis title, abstract, and curriculum vitae of the external examiner, shall be sent to the Dean of Graduate Studies for final approval. The examining committee composition shall reach the Dean of Graduate Studies at least six weeks before the examination date. At this time, the chair of the graduate program committee will notify the University community of the intended time and place of the examination.

After the recommendation is approved, the Dean of Graduate Studies shall formally invite the external examiner. Unbound copies of the completed thesis shall be distributed to the examining committee by the chair of the graduate program committee after approval of the examining committee and thesis examination arrangements by the dean and at least four weeks before the date of examination. The chair of the examining committee shall inform the Dean of Graduate Studies in writing when the thesis has been distributed. Department rules may require earlier submission of the completed thesis.

The examination of the thesis shall take place under the regulations for thesis examination given in 1.10.1.

1.9.5 The Role of the External Examiner
The external examiner should be a distinguished scholar with particular experience in the field of the thesis research. The examiner shall be free from potential conflict of interest which may arise, for example, from research collaboration with the student or prospective employment of the student. Whether the external examiner will participate in person or in absentia, including the possibility of a conference telephone connection or similar means, will be determined by the dean of graduate students who will take into account the departmental views.

The external examiner shall be asked to report on the thesis, to the dean of graduate studies only, before the examination. If the report states that the thesis is ready for defence, a copy shall be sent to the chair of the examining committee by the dean of graduate studies for distribution to all members of the examining committee before the examination. The contents of the report will not be communicated to the student. If the report recommends that the examination be postponed, the dean shall send a copy to the chair of the examining committee, the senior supervisor and the chair of the graduate program committee. The chair of the graduate program committee and the senior supervisor will inform the student of the content of the report. Following discussions with the student and the supervisory committee, the chair of the graduate program committee shall report to the dean whether the examination will take place as scheduled or be postponed.

Once the examination has taken place, and if the thesis is passed, the external examiner shall send a brief report to the senior supervisor which indicates the general quality of the thesis. That report (which may be either a copy of the initial report to the dean of graduate studies or a report prepared after the thesis defense) shall accompany the recommendation for award of the degree.

In the event of examination in absentia, the report of the external examiner should be quite extensive and give a specific recommendation as to whether the thesis ought to pass, fail, or be subject to revision as under 1.10.2. The report may contain specific questions the external examiner would like posed to the candidate. The report shall be copied, by the dean of graduate studies, to the chair of the examining committee, for distribution to all members of the examining committee before the examination.

Specific questions raised by the external examiner in that report shall be directed to the candidate during the examination by members of the examining committee selected by the chair of the examining committee.

1.9.6 Notification of Doctoral Thesis Examination
At least 10 days before the proposed examination, the chair of the graduate program committee will notify the candidate, the examining committee, the dean or deans of faculty concerned and the dean of graduate studies of the date, place and time of the thesis examination; this date shall not be earlier than the originally proposed date. The dean of graduate studies will notify the University community.

1.10 Examinations

1.10.1 Thesis Examination
The candidate shall give an oral account of the research on which the thesis is based and defend the thesis itself. The candidate must be prepared to answer questions on the field of the research and related fields.

Thesis examinations are open to the University community. Copies of the thesis abstract shall be made available to all those attending the examination. The chair of the examining committee shall allow proper opportunity for questions on the thesis to come from persons who are not members of the examining committee but are attending the examination. The dean of graduate studies shall have the right to attend all phases of the examination.

After the chair of the examining committee is satisfied that all relevant questions have been answered, the examining committee shall meet in camera to classify the thesis.

1.10.2 Classification of the Thesis
There are four possible outcomes of the thesis defence.
1) the thesis may be passed as submitted
2) the thesis may be passed on the condition that revisions be completed to the satisfaction of the senior supervisor
3) the examining committee may defer making judgement if it judges that the thesis could pass after additional work by the candidate. A thesis upon which judgement is deferred shall come forward for re-examination within a period specified by the examining committee. The examining committee may require formal re-examination under section 1.10.1 or may reach its decision by examination of the revised thesis. The examining committee may not defer judgement a second time.
4) the thesis may be failed. In this case, the candidate is required to withdraw from the University.

The decision of the examining committee is by simple majority vote except that, in the cases of doctoral candidates or candidates enrolled under special arrangements, the classification of the thesis may not be at a higher level than that of the external examiner. A decision to pass the thesis or to defer making judgement may not be reached on a tie vote of the examining committee. If at first a majority vote to pass the thesis cannot be reached, and subsequently, if a majority vote to defer judgement cannot be reached, the thesis will be failed.

1.10.3 Recommendation for the Award of the Degree
When a student has successfully defended the thesis and made any minor revisions required, the supervisory committee shall recommend award of degree. This recommendation goes for approval respectively to the graduate program committee, the faculty graduate studies committee, the senate graduate studies committee and senate, which has the final authority to award the degree.

The title of the thesis, extended essays, professional paper and projects will be recorded on the student’s transcript.

1.10.4 Submission of the Thesis to the Library
If the examining committee has required minor revisions to a thesis, these will be completed as soon as possible after the examination and checked by the senior supervisor. Two unbound copies of the final draft of the completed thesis shall be sent to the library together with a memorandum from the senior supervisor certifying that all required revisions have been made. These two copies will be bound, catalogued and retained by the library, one for the general collection and one for the University archives. Graduate program committees may also require not more than two bound copies for departmental files and these should be submitted for binding at the same time.

When the library representative of the dean of graduate studies has checked the thesis and accepted the format, the representative will notify the registrar. No degree will be approved by senate until the registrar has been so notified.

Master's Students

1.10.5 Examination of Extended Essays Submitted in Partial Fulfillment of Degree Requirements
Examination for an extended essay shall be as for the examination of a master’s thesis. The extended essay of a successful candidate shall be deposited in the library in the same format as for a thesis.

1.10.6 Examination of Projects Submitted in Partial Fulfillment of Degree Requirements
For degrees designated 'professional degrees' by senate (presently executive MBA, day MBA, MEd, MPM, MPP, MRIM, MEng, MPub) the project will be examined in ways designated by the appropriate faculty graduate studies committee and the dean of graduate studies.
1.11 Publication of Thesis
When the thesis is submitted to the library, the student shall authorize the copying and publication of the thesis as follows.

1.11.1 Partial Copyright License
Except as noted in 1.11.3, the student shall sign a partial copyright license which grants to the University the right to lend the thesis to users of the library, and to make partial or single copies for such users. Multiple copying is not permitted without written permission from the author except that, if the author is unobtainable, the dean of graduate studies may give this permission.

1.11.2 Reproduction
Except as noted in 1.11.3, the student shall sign an agreement form authorizing the National Library of Canada to reproduce the thesis and to sell microfilm copies on request.

1.11.3 Postponement of Publication
The results of research conducted at Simon Fraser University should be available freely to the public, and it is expected that theses will be placed in the library immediately following final revisions. It is the responsibility of graduate students to ensure that this policy is communicated clearly to relevant individuals and organizations outside the university prior to the initiation of any research project.

A thesis may be withheld from circulation and from copying for a period of 12 months from the date of defence of the thesis, in order to protect confidential commercial information, patentable material, pending application, or where immediate commercial publication is anticipated. No extensions to this time limit will be permitted. At the time of the thesis defence, a thesis withholding document requesting and authorizing such delay shall be signed by the student, the senior supervisor, and the dean of graduate studies. The official copies of the thesis and all pertinent forms shall be deposited in the library along with the withholding document. A copy of the thesis shall not be sent to The National Library of Canada during the restricted period but the abstract of the doctoral thesis shall be sent to Dissertation Abstracts International with the period of restriction duly noted.

Under exceptional circumstances, portions of a thesis may be withheld from the reference copy of the thesis that is made available to faculty members and students (see 1.9.2 and 1.9.4). This procedure must be authorized by the dean of graduate studies well before the distribution of the thesis. The dean must ensure that only the most confidential material is withheld from the thesis, and that the overall content of the thesis is not lost.

1.11.4 Publication of the Thesis by the Student
None of the clauses above preclude the student from publishing the thesis in any form at any time.

1.12 Maximum Time for Completion of the Requirements for the Degree

1.12.1 General
The maximum times for completion given below are not intended to be the normal times for completion. They are intended to take into account a wide variety of extraordinary circumstances and events that may delay completion. Individual departments may specify their expectations of normal degree completion times as a guide to determining whether a student's progress is satisfactory.

Although it is expected that most students will complete their programs well before reaching the time limit, some students may be required to suspend work for a period of time because of mental or physical disability, pregnancy or family responsibilities. In such cases, students should apply to go on leave, should present evidence (e.g. from a doctor) of the necessity of the interruption of studies, and should request that their on-leave fees be waived. On-leave semesters taken under such circumstances will be added to the maximum length of time in program. Students who take on-leave semesters for other reasons will not receive extensions. Students in per credit programs do not take on-leave semesters. Students in those programs should submit a letter to the chair of the graduate program committee outlining the circumstances and requesting that their maximum time in program be extended, together with the required documentation.

Students with long-term disabilities should discuss their situation with the Centre for Students with Disabilities early in their graduate studies or as soon as possible after the condition is diagnosed. The centre will assist students and their departments to develop plans for completion of programs, and this may include an extension beyond the normal time limits. Such plans must be approved by the Dean of Graduate Studies.

1.12.2 Master’s Degree
Students in per semester fee programs (see 1.4) shall complete all of the requirements for a master's degree within 12 semesters of equivalent enrolment. On-leave semesters will not be counted as semesters of enrollment. In addition, all requirements of the master's degree must be completed within six calendar years of initial enrolment as a master's student. Students in per credit fee programs (see 1.4) shall complete all of the requirements for a master's degree within six calendar years of initial enrolment.

1.12.3 Doctoral Degree
A student shall complete all the requirements for a doctoral degree within eight calendar years of initial enrolment as a doctoral student or, in the case of a student who has transferred from a master's program into the doctoral program without completing the master's degree, within eight calendar years of initial enrolment as a master's student.

1.12.4 Readmission
Under exceptional circumstances and with the recommendation of the chair of the graduate program committee, a student who did not complete the degree requirements within the maximum time, and who was thus required to withdraw, may be readmitted for one semester only to complete those requirements. Final approval for readmission is by the dean of graduate studies.

1.13 Award of the Degree

1.13.1 Application for Graduation
Every candidate for a graduate degree is responsible for applying for graduation on forms available from the Office of the Dean of Graduate Studies.

1.13.2 Award of the Degree
Award of the degree is by resolution of senate.

1.13.3 Transcripts
Certified official transcripts of the student's graduate academic record may be obtained from the Office of the Dean of Graduate Studies. Only individually signed copies with the University seal are valid. For further information on cost refer to “Graduate Fees” on page 252.

1.14 Convocation Ceremony
Convocation is held twice annually. Graduates from the previous fall and spring semesters convocate in early June, while graduates from the summer semester convocate in October.

1.15 Class Interruption
Simon Fraser University makes reasonable efforts to ensure that its classes and courses of instruction proceed on a regular basis and without interruption. Faculty have certain discretion to cancel or change the timetable for their classes; they will endeavor to give reasonable notice of any cancellation or change. Simon Fraser University will not be responsible for cancellation or change of any class. Neither will Simon Fraser University be responsible for the interruption or termination of any class or course of instruction which results from fire, riot, labor disruption or any other event which occurs during the University's efforts, or for failure to give notice of the interruption or termination.

1.16 Graduate Student Appeals
Graduate students are advised to seek informal resolution of problems through discussions with their supervisor, graduate program chair, department chair or faculty dean, and the dean of graduate studies.

1.16.1 Grades
May be appealed to the instructor, department chair and, in some cases, faculty dean in accordance with academic policy T 20.01.

1.16.2 Progress Evaluations
May be appealed to the senate graduate studies committee (see 1.8.2).

1.16.3 Admission
Applicants who meet or exceed minimum requirements for admission are not assured of admission to any graduate program (see 1.3.1)

Normally, admission decisions may not be appealed (see 1.3.10). In exceptional circumstances, unsuccessful applicants may appeal to the committee to review university admissions. This committee will only review the fairness of admissions procedures and will not review an applicant's credentials.

1.16.4 Other Appeals
Appeals of decisions on registration, graduation, entry/re-entry to a program or any matter relating to academic standing (other than review of unsatisfactory progress) are referred to the senate appeals board.
Tuition Fees

Tuition fee calculation depends upon the program in which a student is enrolled. Most programs require students to register every semester and charge a per-semester fee. Some programs (see Tuition Fee Schedule below) charge a per-credit fee, such that the fee for any semester depends upon the number of credits in which a student enrolls.

Per Semester Fee Programs

All graduate students pay a per semester fee, except those students in programs that charge a per credit fee.

The fee is paid every semester, regardless of the number of courses being taken.

Master’s Program

The minimum fee for a master’s program is six semester fee units. However, the minimum fee rule will be waived for students who complete all degree requirements in less than six semesters of continuous full time registration.

Students who register on leave are not eligible for the waiver of the minimum fee requirements.

A master’s student who has completed six semesters of registration (excluding on leave registration) pays a continuing fee in subsequent semesters equal to one half of the regular fee.

Doctoral Program

A doctoral student who has completed eight semesters of registration (excluding on leave registration) pays a continuing fee in subsequent semesters equal to one half of the regular fee.

Semesters in which a student registers on leave do not count towards the number of semesters required to switch to the continuing fee.

Co-operative Education

Students in a co-operative education semester who are taking at least one course pay a per semester fee based on the stage they have reached in their program (either regular fee or continuing fee).

Students not taking a course pay the co-op fee.

Fees are listed in the tuition fee schedule.

Per Credit Fee Programs

In some programs, students are charged a fee based on the number of credit hours in which they enroll. All such programs are listed in the tuition fee schedule, together with the relevant tuition fee.

In programs in which there is a final ‘capstone’ requirement such as a thesis, project, extended essay or field exam, this requirement is assigned a number of credit hours. Students must register for this and pay the appropriate fee for at least one semester, normally at the end of their program of study. Once they have registered for this requirement in a particular semester, they must register in all subsequent semesters until degree requirements have been completed. In the subsequent semesters of registration for this requirement, the credit hours assigned will be half the first semester’s value.

Student in co-operative education semesters pay the co-op fee. If they are also taking courses, they also pay the fees applicable to those course.

Students who audit a course pay the same audit fee as domestic undergraduate students.

Students in per credit programs who take undergraduate or graduate courses in other programs at SFU, or who take courses at other institutions covered by the Wester Deans’ Agreement, will pay the same fee per credit hour as they do for courses in their own programs.

Fees are listed in the tuition fee schedule.

<table>
<thead>
<tr>
<th>Tuition Fee Schedule 2005 – 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>All fees are subject to change, subject to provincial legislation and subject to board of governors approval.</td>
</tr>
<tr>
<td><strong>Per Semester Fee Programs</strong></td>
</tr>
<tr>
<td>Research programs, full-time fee</td>
</tr>
<tr>
<td>Research programs, continuing fee</td>
</tr>
<tr>
<td>Research programs, on-leave fee</td>
</tr>
<tr>
<td>Executive MBA Program, if admitted for Fall 2005</td>
</tr>
<tr>
<td>Curriculum and Instruction (Masters) – pilot cohort</td>
</tr>
<tr>
<td>ES/LEFL (Masters) – pilot cohort</td>
</tr>
<tr>
<td>Master of Education (MEd), off-campus</td>
</tr>
<tr>
<td>Doctor of Education (EdD)</td>
</tr>
<tr>
<td>Master of Population and Public Health – pilot cohort</td>
</tr>
<tr>
<td>Graduate Diploma (Bioinformatics)</td>
</tr>
<tr>
<td>Co-operative Education Program practicum</td>
</tr>
<tr>
<td><strong>Per Credit Fee Programs</strong></td>
</tr>
<tr>
<td>All graduate credit programs – basic</td>
</tr>
<tr>
<td><strong>Faculty of Applied Sciences</strong></td>
</tr>
<tr>
<td>Graduate Diploma in Quantitative Methods in Fisheries Management</td>
</tr>
<tr>
<td>Master of Engineering</td>
</tr>
<tr>
<td><strong>Faculty of Arts and Social Sciences</strong></td>
</tr>
<tr>
<td>International Leadership (Masters) – pilot cohort</td>
</tr>
<tr>
<td>Liberal Studies Program (MA)</td>
</tr>
<tr>
<td>Publishing Program (MPub)</td>
</tr>
<tr>
<td>Public Policy Program (MPP) if entering in Fall 2005</td>
</tr>
<tr>
<td>Graduate Diploma in Urban Studies</td>
</tr>
<tr>
<td>Master of Urban Studies</td>
</tr>
<tr>
<td><strong>Faculty of Business Administration</strong></td>
</tr>
<tr>
<td>Specialist MBA Program if entering in Fall 2005</td>
</tr>
<tr>
<td>Management of Technology Program (MBA) for students entering in Fall 2005</td>
</tr>
<tr>
<td>Global Asset Wealth Management Program (MBA)</td>
</tr>
<tr>
<td>Graduate Diploma in Business Administration for students entering in Fall 2005</td>
</tr>
<tr>
<td>Financial Risk Management MA – pilot cohort</td>
</tr>
<tr>
<td><strong>Faculty of Education</strong></td>
</tr>
<tr>
<td>Master of Education (MEd), MA Counselling Psychology</td>
</tr>
<tr>
<td>Graduate Diploma in Education</td>
</tr>
</tbody>
</table>
Fees for Non-degree, Exchange and Qualifying Students

Non-degree and exchange students are admitted to take graduate courses only.
Qualifying students are admitted to take undergraduate courses only.
Students in the above categories who take undergraduate or graduate courses pay the following fee per credit hour: $145.20.
No tuition fees will be charged to a bona fide graduate student at another western Canadian university who attends Simon Fraser University to take a course under the terms of the Western Deans’ Agreement.

Payment

Unless otherwise noted, all fees are payable per semester.

Extension and Readmission

Students in per-semester fee programs
All students registered for a one semester extension beyond the maximum time limits of their program pay the full per semester fee.
All students readmitted for one semester to complete their degree requirements (see “1.12.4 Readmission”) pay the per-semester fee applicable to their cohort.

Students in per-credit fee programs
Students registered for a one semester extension beyond the maximum time limits of their program, or readmitted for one semester to complete their degree requirements (see “1.12 Readmission”), pay the per-credit fee applicable to their cohort.

Transfer

Students who transfer from one SFU program to another, without completing the first, retain credit for fees paid to the first program.

Student Services and Recreation-Athletics Fees

The Student Services Fee (SSF) and Recreation-Athletics Fee (RAF) are assessed to all students registered for credit courses that are offered at the Burnaby Mountain, Harbour Centre and Surrey campuses according to the table below. These fees are not assessed to students on co-operative education work terms, on leave, or in the off-campus MEd program.

<table>
<thead>
<tr>
<th>SSF</th>
<th>RAF</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>part time students</td>
<td>$35.68</td>
<td>$29.73</td>
</tr>
<tr>
<td>full time students</td>
<td>$35.68</td>
<td>$59.46</td>
</tr>
</tbody>
</table>

Student Activity Fee

A student activity fee, authorized by the board of governors, is collected from all students enrolled in graduate programs with the exception that persons aged sixty or more are exempt from this fee, as well as students taking courses for audit purposes only.
For a breakdown of the student activity fee, see “Simon Fraser Student Society” on page 19.

| Student Activity Fee | $59.57 |
| students registered full time | $59.57 |
| students registered part time | $29.79 |
| students taking programs at designated off campus locations | $29.79 |
| students on leave | no fee |

Special Fees

| Application | $75.00 |
| On Leave | $180.80 |
| Reenrollment | $100.00 |
| Replacement Library Card | $16.50 |
| U-Pass Replacement Card | $20.00 |

Graduation

The non-refundable graduation fee is payable in six installments of $6.00 in each of the student’s first six semesters of registration in the graduate program.

Penalty for Late Fee Payment

A penalty of 2% of outstanding fees after the last day of the fourth week of classes is payable, plus 2% of outstanding fees for each four week period thereafter, for a minimum charge of $10.

Universal Transit Pass (U-Pass)

The U-Pass fee is $98.00 per semester. The following students are not eligible for the U-Pass and will be exempt from this fee:

• students who are not assessed Simon Fraser Student Society fees (see “Student Activity Fee” on page 52)

• students who are enrolled in Distance Education courses only

• students who are enrolled in designated “off-campus” courses only

The following students will be exempted from the U-Pass fee by following the procedures for U-Pass Exemption at the U-Pass website (www.sfu.ca/upass). Please note that supporting documentation will be required:

• students who do not reside in the Greater Vancouver Regional District (GVRD) and who attend classes at a Simon Fraser University campus on average one day per week or less during the semester

• students who are registered with TransLink as handyDART users or hold a valid non-transferable TransLink transit pass

• students who hold a valid TransLink U-Pass issued from another post-secondary educational institution

• students who have a documented physical or psychological condition which prevents the use of public transit

The U-Pass fee is charged to all students at the time of enrollment in courses. For exempt students, the U-Pass fee reversal will be applied to accounts by the first week of classes.

Mandatory Supplementary Course Fees

In addition to credit course fees, mandatory supplementary course fees may be assessed for individual courses in addition to basic tuition. Mandatory supplementary course fees cover additional costs associated with photocopied materials, prepared computer disks and/or audio visual tapes that may replace or enhance the use of a required text as a means of instruction. This material may be distributed by the bookstore or individual departments.

A schedule of these fees appears below, and is also published in the Graduate Course Timetable. The fees are approved by the vice-president finance and administration, following the recommendation of the advisory committee on mandatory supplementary course fees. Questions regarding these fees may be directed to the department initiating the fee, the Office of the Registrar, or the vice-president finance and administration.

Mandatory supplementary course fees are not charged for regular credit instruction services which may include:

• evaluation of work or performance, such as marking of papers and exams

• laboratory use, including materials and supplies that are consumed during laboratory use. (Departments may charge a refundable deposit for materials that are used by the student and returned to the University in reasonable condition at the end of the course)

• basic library facilities including one library card and access to collections

• basic microcomputer laboratory use

• materials or services required as a result of the method of instruction such as audio visual equipment, course outlines, study rooms and films and video tapes that are integral to the instruction and do not become property of the student.

Biological Sciences

| BISC 600 | $189 |
| BISC 812 | $225 |

Earth Sciences

| BISC 600 | $189 |
| EASC 611 | up to $150 |
| EASC 613 | up to $30 |
| EASC 617 | up to $50 |
| EASC 619 | up to $100 |
| EASC 623 | up to $40 |
| EASC 812 | $225 |

Geography

| GEOG 612 | $100 |
| GEOG 628 | up to $50 |

Marine Science

All MASC courses offered at the Western Canadian Universities Marine Biological Station (Bamfield) are consumed during laboratory use. (Departments may charge a refundable deposit for materials that are used by the student and returned to the University in reasonable condition at the end of the course)

| BISC 812 | $137 per credit hour |

Resource and Environmental Management

| REM 698 | $150 per semester |

Time of Payment

In order to register, students must have a credit balance of at least $100 in their accounts. Students must be registered for the semester before any payment of graduate awards can be made in that semester. A student applying for Canada student loans should make arrangements to pay fees from other sources, as loans cannot be authorized until the student is officially registered.

See “Payment of Fees” on page 53 for a description of various payment methods.

Refunds

Withdrawal from Program

If a student withdraws from the graduate program without completing the degree before the end of the semester, refunds will be calculated from the date the student officially notifies the registrar in writing of his/her withdrawal from the University. Withdrawal in the first month of the semester will result in a refund of 50% of the tuition fees payable. No other refund will be made.
Change of Fee Status
Changes from one program to another (e.g. masters to doctoral; transfer between programs) are made effective at the start of a semester. Mid-semester changes are not permitted.

Overdue Accounts
Students in bad financial standing because of overdue University accounts will be precluded from registering in subsequent semesters. In addition, the University will withhold certain services. For example, the Director, Graduate Admissions, Records and Registration will not release various letters and documents including: statement of grades, official transcripts of academic record, and parchments for degrees, diplomas and certificates. Delinquent accounts will be forwarded to a collection agency for appropriate action.

Students with overdue accounts will be assessed a penalty of 2% after the first day of the fifth week of classes, and an additional 2% in each four week period thereafter. A minimum charge of $10 will apply to each penalty assessment. Total penalties will be adjusted to conform to Canadian laws and regulations when the final payment is made.

Course Drop
Students in per-semester fee programs are not eligible for refunds if they drop one or more courses.

Students in per credit fee programs who drop a course before the end of the fourth week of the semester will receive a full refund of tuition fees for that course. No refunds will be given for courses dropped after that date.

Students in per-credit programs who wish to drop all courses should first contact the Director, Graduate Records, Admissions and Registration to discuss their status in the program. Students in per credit fee programs who drop all courses before the end of the fourth week of the semester will receive a 50% refund of tuition fees for those courses. No refunds will be given if all courses are dropped after that date.

Completion of Program
If a student completes all degree requirements during the semester, the following refund schedule for tuition fees payable in that semester will apply. No other fees are eligible for refund.

Completion in the first month of the semester
Refund of 75% of fees payable for the semester.

Completion in the second month of the semester
Refund of 50% of fees payable for the semester.

Completion in the third month of the semester
Refund of 25% of fees payable for the semester.

Refunds to students in per semester fee programs will only be made to students who are paying the continuing fee.

Refunds to students in per credit fee programs will only be made to students who are enrolled in a “project completion” or “thesis completion” course.

Fee Waiver
For students in per semester fee programs, on-leave fees may be waived in exceptional circumstances, for example, accident, illness or parenting, on the basis of medical documentation.

Fees for Courses at Another Institution
Except for situations covered by the Western Deans’ Agreement, a student registered at Simon Fraser University who takes a course at another institution of higher learning and has had this course approved in advance for credit towards the graduate program (see General Regulations) is responsible for enrolling at the other institution and paying fees assessed by that institution. When the student produces satisfactory evidence of tuition fee payment at the other institution, the Simon Fraser University fees for that semester will be decreased by this amount. The SFU fee paid for that semester will be refunded to an amount not to exceed the lesser of the two amounts.

A student in a per semester fee program must maintain registration at Simon Fraser University, and may not register on leave. A student is a per credit fee program must register for the same number of credits at SFU as are to be taken at the other institution.

Full Time and Part Time
All graduate students in per semester fee programs are considered full time students.

All graduate students registered for thesis, project or field exams are considered full time students.

Graduate students in per credit fee programs who register for six or more credit hours in a semester are considered full time students.

Tuition Fee Certificates (T2202A)
The official tuition fee certificates will be produced by the Student Accounts office in January of the following years.
Financial Aid for Graduate Students

Graduate students are eligible for a variety of financial assistance programs including entrance or continuing scholarships, graduate fellowships, awards, bursaries and loans.

Scholarships and fellowships recognize outstanding academic achievements; awards generally acknowledge outstanding achievements or community contributions. Bursaries are awarded on the basis of financial need. Government student loans are awarded on the basis of financial need by the student's province of residence. Emergency loans are available from the Academic Resources Office, to students in short term financial crisis.

Other sources of income are teaching assistantships (TAs) and research assistantships (RAs) which are available in most departments. Applications should be directed to the chair of the appropriate graduate program committee in the intended department.

All graduate scholarship and financial assistance programs are administered by one of two University units. Merit based graduate scholarships and awards (cumulative grade point average of 3.50 or better) are administered by the Dean of Graduate Studies Office. Room 1100, Maggie Benston Student Services Centre, Tel: 604.291.5411, Fax: 604.291.3080.

Generally, the financial needs-based graduate scholarships, bursaries and loans, including Government student loans and emergency loans, are administered by the Financial Assistance Office, Student Academic Resources, Maggie Benston Student Services Centre, Tel: 604.291.4356. They include the Canada Student Loan Program, the Work Study Program and graduate bursaries.

Categories of Graduate Scholarships, Awards, Bursaries and Stipends

Merit-based awards available to graduate students and postdoctoral researchers from internal and external sources are listed in the graduate awards guide. The guide is available on the Dean of Graduate Studies website at http://www.sfu.ca/dean-gradstudies/finals.htm

Every attempt has been made to provide up-to-date information. However, it remains the prerogative of the award-granting agencies to change deadline dates, discontinue awards, etc. without prior notice.

Award Categories

Awards that are administered by the Dean of Graduate Studies Office:

- Simon Fraser University Entrance Scholarships (page 255)
- Awards for New and Continuing students (page 257)
- Private Awards (page 257)
- University Administered External Awards (page 261)
- Externally Administered Awards (page 262)

Awards, Bursaries and Loans that are administered by the Financial Assistance Office, Academic Resources, Registrar's Office:

- Bursaries Administered by the University (page 263)
- Bursaries for All Students (page 264)
- Bursaries for Applied Sciences Students (page 265)
- Bursaries for Arts and Social Sciences Students (page 265)

- Bursaries for Business Administration students (page 266)
- Bursaries for Education Students (page 266)
- Bursaries for Science Students (page 267)

International Students

Students who are not Canadian citizens and who would require financial assistance to attend Simon Fraser University must seek such assistance in their country of origin before arrival in Canada. Many of the outside awards are restricted to Canadian citizens or permanent residents. However, foreign students are eligible for most awards granted by the University when they have been accepted for admission into a graduate program.

General Information and Regulations

The following regulations apply generally to all financial assistance administered by the University.

- Plan and apply well in advance as many scholarship deadlines occur between 4 and 12 months before the granting of the award. Application deadlines are listed for each award on the following pages. Please note that the published deadlines are approximate dates only, and are subject to change by the awarding agency.
- All scholarships and awards are given on the recommendations of the Senate Graduate Awards Adjudication Committees. Committee decisions, when announced, are final.
- The University does not guarantee the payment of any scholarships, awards or bursaries listed in the Calendar other than those provided directly from funds of the University. If invested funds do not provide the necessary income for an endowed scholarship, award or bursary, payment of the award may be reduced or the award withheld. The University reserves the right to withhold awards donated by individuals or organizations where the funds required have not actually been received.
- The University reserves the right to refrain from making an award if, in its opinion, none of the applicants meets the terms specified.
- The individual graduate student is responsible for knowing the deadlines for proper completion of the application forms and supplying all appropriate documentation for the various scholarships, awards and bursaries. Incomplete applications may be rejected.

The following awards are contingent upon the availability of funds. Further information is available from the Dean of Graduate Studies Office, MBC 1100. Completed application forms and all required documentation should be submitted to the Graduate Secretary in the applicant's department of enrolment by the indicated deadlines, unless specified otherwise.

Special Awards

Academic and Service Awards

Terms of reference: Graduates are eligible for many of the University Service Awards listed in the undergraduate Financial Assistance and Awards section of the Calendar. Please refer to this section for detailed information.

Athletic Awards

Terms of reference: Graduate students who compete on a Simon Fraser University varsity team may be eligible for Athletic Awards. Please refer to the undergraduate Financial Assistance and Awards section of the Calendar for further information. See “Financial Assistance and Awards” on page 55.

Dean of Graduate Studies Convocation Medals

Application deadline: April 25

Terms of reference: A silver medal has been established for a graduating graduate student from each faculty. The dean of the respective faculty will recommend a student who has achieved the highest level of academic excellence in his/her graduate program.

The criteria for selection of special awards are quality of work, cumulative GPA, and timeliness of completion of the degree. All recommendations are to be forwarded to the Dean of Graduate Studies by April 25.

Governor General’s Gold Medal

Application deadline: April 25

Terms of reference: The Governor General’s Gold Medals will be awarded to the students who achieve the highest academic standing in their master's or doctoral degree program. The two students selected will be from different faculties.

Entrance Scholarships

Deloitte and Touche Graduate Entrance Scholarship

Value: $5,000

Application deadline: March 15

Tenable: Fall semester

Terms of reference: For a student entering a graduate program in the field of accounting.

ASI Graduate Student Awards

Value: $10,000 each

Application deadline: September 1 (by nomination)

Tenable: Fall semester

Terms of reference: five awards to outstanding Canadian students entering a new graduate program in an advanced systems discipline such as information technology, micro electronics, robotics and/or telecommunications. Students must be nominated by their intended department of enrolment to the Director of the Centre for Systems Science.

Contents

Categories of Graduate Scholarships, Awards, Bursaries and Stipends 255

Award Categories 255

International Students 255

General Information and Regulations 255

Special Awards 255

Entrance Scholarships 255

Awards for New or Continuing Students 257

Private Awards 257

University Administered External Awards 261

Externally Administered Awards 262

Bursaries and Loans 263

University Administered Loans 267

Work-Study Program 267

Government Administered Programs 267

Study in BC for Students from other Provinces 268

International Students 268

For More Information 268
Wm. F. and Ruth Baldwin Graduate Scholarship in History
Value: $8,000
Application deadline: March 15
Tenable: Two consecutive semesters
Terms of reference: One or more, two-semester awards. Preferentially to an incoming student pursuing a graduate degree in British history.

Gary Brent Global Asset and Wealth Management Scholarship in Business Administration
Value: $10,000
Application deadline: May 30 and/or September 30 (by nomination)
Tenable: three consecutive semesters
Terms of reference: An award for a student entering the Global Asset and Wealth Management MBA Program after having spent a minimum of at least two years employed in the financial industry in a professional capacity. Each scholarship winner will be introduced to Gary Brent during tenure of the award. A student will be nominated for the award by the director of the program.

Graduate Entrance Scholarship in Business Administration
Value: $1,200
Application deadline: March 15
Tenable: Any semester
Terms of reference: An award annually to a full-time student entering the Global Asset and Wealth Management MBA Program after having spent at least two years employed in the financial industry in a professional capacity. Each scholarship winner will be introduced to Gary Brent during tenure of the award. A student will be nominated for the award by the director of the program.

Douglas Cole Memorial Graduate Entrance Scholarship in Cultural History
Value: $600
Application deadline: March 15
Tenable: Fall
Terms of reference: An award will be awarded to a student entering the graduate program in history whose focus will be on cultural history.

DuPont Graduate Entrance Scholarship in Chemistry
Value: $1,500
Application deadline: March 15 (by nomination)
Tenable: Any semester
Terms of reference: Two scholarships will be awarded to the top entering graduate students in the Department of Chemistry. Candidates will be judged on their scholastic and research achievements and potential. Students must be nominated by their intended department.

Thelma Finlayson Graduate Entrance Scholarship
Value: $6,000
Application deadline: March 15
Tenable: Fall semester
Terms of reference: A minimum of three scholarships are available each year to full time students pursuing studies towards the Master of Pest Management degree.

Arthur and Ancie Fouks Graduate Entrance Award in Public Service
Value: $4,000
Application deadline: March 15 (by nomination)
Tenable: Any semester
Terms of reference: One award to recognize both outstanding academic performance and a high level of public service by a student entering a graduate program at Simon Fraser University. Student must be nominated by his/her intended department.

Global Asset and Wealth Management MBA Graduate Scholarship
Value: $10,000
Application deadline: May 30 (by nomination)
Tenable: three consecutive semesters
Terms of reference: The recipient is an outstanding woman scholar entering any PhD program at Simon Fraser University. The recipient must show potential for significant contribution to society through achievement in her chosen field. One award is made. Tenure is for one year and may commence in any semester.

O.H. Sorila Memorial Graduate Scholarship in Philosophy
Value: $500
Application deadline: March 15
Tenable: Fall semester
Terms of reference: One scholarship for a student entering a Master of Arts Program in the Department of Philosophy. Preference is given to a student coming from overseas, but intending to return to their homeland after degree completion.

Southam Inc. Graduate Entrance Scholarship in Publishing
Value: $3,000
Application deadline: March 15
Tenable: Any semester
Terms of reference: One award for a student entering the Master of Publishing Program.

Special Graduate Entrance Scholarship
Value: $3,000-$7,000
Application deadline: any semester, by nomination
Tenable: September, January or May
Terms of reference: Ten scholarships per calendar year, to full-time students entering the Global Asset and Wealth Management MBA program after having spent a minimum of at least two years employed in the financial services industry in a professional capacity. Students will be nominated for these awards by the director of the program.

Graduate Entrance Scholarship in Geography
Value: $2,500
Application deadline: March 15
Tenable: Any semester
Terms of reference: One award for a student entering a graduate program in geography.

Bert Henry Memorial Graduate Scholarship
Value: $18,000 (subject to funding)
Application deadline: March 15
Tenable: Three consecutive semesters
Terms of reference: The recipient is an outstanding student who has obtained a master’s degree and is entering any PhD program. The recipient must show high academic performance and potential for significant contribution to the chosen field of study. Tenure is for one year and may commence in any semester.

C.D. Nelson Memorial Graduate Scholarships
Value: $18,000
Application deadline: March 15
Tenable: Fall semester
Terms of reference: Three consecutive semesters
Terms of reference: Ten scholarships per calendar year, to full-time students entering the Global Asset and Wealth Management MBA program after having spent a minimum of at least two years employed in the financial services industry in a professional capacity. Students will be nominated for these awards by the director of the program.

Master of Pest Management Graduate Entrance Scholarship
Value: $500
Application deadline: March 15
Tenable: Fall semester
Terms of reference: An award for a student entering a graduate degree program leading to the Master of Pest Management degree in the Centre for Environmental Biology.

Graduate Entrance Scholarship in Political Science
Value: $1,500
Application deadline: March 15 (by nomination)
Tenable: Any semester
Terms of reference: One award for a student entering an MA or PhD program in political science.

Faculty of Science Graduate Entrance Scholarship
Value: $1,700
Application Deadline: March 15 (by nomination)
Tenable: Fall semester
Terms of reference: One award for a student from the University College of the Fraser Valley entering the MSc program in a department in the Faculty of Science at Simon Fraser University.

Scott Paper Limited Bicultural Graduate Entrance Fellowship
Value: $15,000
Application deadline: March 15
Tenable: three consecutive semesters
Terms of reference: The recipient is an outstanding student who has received a previous degree at a University in the province of Quebec and is entering any Simon Fraser University graduate program. One award is made. Tenure is for one year and may commence in any semester.

Simons Foundation Doctoral Entrance Fellowship (for Women)
Value: $17,000
Application deadline: March 15
Tenable: three consecutive semesters
Terms of reference: Ten scholarships per calendar year, to full-time students entering the Global Asset and Wealth Management MBA program after having spent a minimum of at least two years employed in the financial services industry in a professional capacity. Students will be nominated for these awards by the director of the program.

C.H. Simons Foundation Doctoral Entrance Scholarship in Economics
Value: $1,500
Application deadline: March 15 (by nomination)
Tenable: Any semester
Terms of reference: One or more scholarships will be awarded to graduate students entering the doctoral program in Economics. The fund honors Doreen Wilkinson, Economics Departmental Assistant, friend and mentor to many. Students must be nominated by the department by March 15.

Grace Woodsworth MacInnis Graduate Award
Value: $2,000
Application deadline: March 15
Tenable: Any semester
Terms of reference: One scholarship for a student entering a graduate program in the Department of English.

Doreen Wilkinson Memorial Graduate Scholarship in Economics
Value: $1,500
Application deadline: March 15 (by nomination)
Tenable: Any semester
Terms of reference: One or more scholarships will be awarded to graduate students entering the doctoral program in Economics. The fund honors Doreen Wilkinson, Economics Departmental Assistant, friend and mentor to many. Students must be nominated by the department by March 15.

Grace Woodsworth MacInnis Graduate Award
Value: $2,000
Application deadline: March 15
Tenable: Any semester
Terms of reference: One scholarship for a student entering a graduate program in the Department of English.
Awards for New or Continuing Students

Graduate Fellowships
Value: $6,000
Application deadline: April 15
Tenable: Any semester
Terms of reference: Recipients are full time students in any Simon Fraser University graduate program. Awards are made on the basis of academic merit; the normal minimum criterion for eligibility is a 3.5 CGPA. These are one semester awards valued at $6,000. Students may apply in an annual competition for graduate fellowships tenable in one, two or three semesters.

Faculty of Applied Sciences Dean’s Fund Graduate Fellowships
Value: $3,000
Application deadline: April 15
Tenable: Any semester, subject to funding
Terms of reference: One semester awards. Applicants are full time students in a graduate program in the Faculty of Applied Sciences. Awards are made on the basis of academic merit and good standing in research ability. Fellowship is based on matching basis: half from the Faculty of Applied Sciences and the other half from the thesis supervisor by way of a research assistantship.

President’s PhD Research Stipends
Value: $6,000
Application deadline: end of the second month of the semester preceding the semester of tenure.
Tenable: Any semester
Terms of reference: These are one semester awards available to all full time PhD students who have completed all degree requirements with the exception of the thesis. Students may receive the award only once during their doctoral program.

The following awards are contingent upon the availability of funds. Detailed information is available from the Dean of Graduate Studies Office, MBC 1100. Completed application forms and all required documentation should be submitted to the Graduate Secretary in the applicant’s department of enrolment by the indicated deadlines, unless specified otherwise.

Private Awards
The following awards are contingent upon the availability of funds.

J. Abbott/M. Fretwell Graduate Fellowship in Fisheries Biology
Value: $4,000
Application deadline: September 30
Tenable: January
Terms of reference: One fellowship to a graduate student showing academic merit in fisheries biology. Preference will be given to an applicant with a strong sports background. This fellowship was established in memory of Jeremy Abbott and Michael Fretwell after their death in a tragic helicopter accident in September 1998.

Access Copyright Graduate Award in Publishing Studies
Value: $1,800
Application deadline: September 30
Tenable: January
Terms of reference: One award to a graduate student in the Master of Publishing Program, demonstrating experience within the Canadian book publishing and/or periodical and/or music publishing sector.

M.D. Angus & Associates Graduate Fellowship in Psychology
Value: $300
Application deadline: September 30
Tenable: January
Terms of reference: One award to assist a graduate student in psychology with the development of a publishable standardized test.

Archaeometry Prize
Value: $200
Application deadline: April 15
Tenable: Summer
Terms of reference: A prize will be awarded annually in the summer semester. The prize will be available to either an undergraduate or graduate student who has shown exceptional scholarship and an interest in the application of physical science to archaeology.

Contact Financial Assistance and Awards, Student Academic Resources, Maggie Benston Student Services Centre.

Association of Women in Finance Graduate Scholarship
Value: $1,500
Application deadline: May 30 (by nomination)
Tenable: Fall semester
Terms of reference: A one-semester award for an outstanding student pursuing a Master of Business Administration, with past work experience in the field of finance and future plans to pursue a career in the area of finance.

BCAA Environmental Studies in Transportation Award
Value: $700
Application deadline: September 30
Tenable: January
Terms of reference: An award to recognize outstanding academic performance by a graduate student whose thesis research is related to the study of land-based transportation systems and their relationship to, and improvement of, the environment.

BC Council of Garden Clubs — Mildred Wells Scholarship
Value: $7,000 each
Application deadline: May 30
Tenable: Fall
Terms of Reference: A scholarship for a student in the Master of Pest Management Program whose course of studies emphasizes horticultural pest control. The recipient must be a Canadian citizen.

B.P. Beirne Prize in Pest Management
Value: $1,200
Application deadline: April 30 (by nomination)
Tenable: Any semester
Terms of reference: An annual prize with accompanying certificate will be awarded during May each year to the outstanding graduate from the master of pest management program in the three semesters immediately preceding Convocation. The award is in honor of the late Dr. B.P. Beirne, founder of the Centre for Environmental Biology at Simon Fraser University. It will be made by nomination by the director of the Centre for Environmental Biology in consultation, as necessary, with faculty. The candidate will be judged equally on his or her scholastic record, professional paper and relevant professional attributes. The student must be nominated by the department by April 30.

Margaret Lowe Benston Memorial Graduate Bursary in Women’s Studies
Value: $1,300
Application deadline: May 30
Tenable: September
Terms of reference: One or more bursaries for graduate students in Women’s Studies. Preference will be given to students working in areas relating to women in science and technology.

Alan Boag Scholarship
Value: $2,000
Application deadline: September 30
Tenable: January (in even numbered years)
Terms of reference: This bi-annual scholarship is the gift of the trustees of a fund established by the late Alan Boag. It is available to graduate students in business administration, economics, history, political science, sociology and anthropology who have completed two semesters of full time study at the University.

Applicants must submit a superior essay on some aspect of socialism which shows originality in analysis and treatment of the area. Students are advised to consult with faculty regarding the suitability of the proposed essay subject. No award will be made if, in the opinion of the referees, a suitably high standard has not been reached.

Boag Foundation Graduate Scholarship in Women’s Studies
Value: $2,000
Application deadline: September 30
Tenable: January (in odd numbered years)
Terms of reference: One award bi-annually for a graduate student in Women’s Studies. Submission of a superior report/essay on any topic concerning feminist socialist issues is required. Special consideration given for originality in analysis and treatment of the area.

Phyllis Carter Burr Graduate Scholarship in Developmental Biology and Cell Biology
Value: $750
Application deadline: September 30
Tenable: any semester
Terms of reference: One award annually for graduate students in any department who intend to pursue an academic research career specializing in developmental biology and/or cell biology. Currently this would include students in the departments of Biological Sciences, Molecular Biology and Biochemistry in the Faculty of Science and the School of Kinesiology in the Faculty of Applied Science. Preference will be given but not restricted to, female applicants.

Cable Television Pioneer Graduate Scholarship
Value: $700
Application deadline: September 30
Tenable: January
Terms of reference: One scholarship for a graduate student in Communication specializing in communication policy.

Canadian Fishing Company Graduate Scholarship
Value: $1,500
Application deadline: September 30
Tenable: January
Terms of reference: One scholarship for a graduate student in Communication specializing in communication policy.

Canadian Limited Sidney Hogg Memorial Graduate Scholarship
Value: $850
Application deadline: September 30
Tenable: January
Terms of reference: One scholarship will be awarded to a graduate student working towards the degree of Master of Science or Doctor of Philosophy specializing in fish biology or aquatic ecology.
Terms of reference: The Barry Clark Memorial Graduate Scholarship is awarded to a graduate student in postgraduate studies in physics. The spirit of this scholarship is to assist a student who requires financial aid to continue studies and who, at the same time, qualifies in terms of character and scholarship as determined by the Physics Department and the Senate Graduate Awards Adjudication Committee.

CanWest Global Graduate Fellowship in Communications
Value: $10,500
Application deadline: September 30
Tenable: Two consecutive semesters
Terms of reference: One or more scholarships awarded annually to graduate students in the School of Communication with a particular interest in issues related to broadcasting.

Centre for Systems Science/Faculty of Applied Sciences Graduate Student Award
Value: $8,000
Application deadline: by nomination
Tenable: any semester
Terms of Reference: A one-year award for outstanding Canadian students in their second year of a graduate studies program, master’s or doctoral, in the Faculty of Applied Sciences.

Chemistry Alumni Graduate Scholarship
Value: varies
Application deadline: September 30 (by nomination)
Tenable: January
Terms of Reference: Awards equal to one semester's tuition fees will be disbursed to one or more candidates in a master's or doctoral program in Chemistry who do not currently hold an NSERC grant or other award of equal or greater value. Candidates must be nominated for this award by the Department of Chemistry scholarship committee with the approval of the Chair of the Department.

Chemistry Graduate Research Award
Value: $800
Application deadline: May 30
Tenable: September
Terms of reference: One award to recognize superior performance in the first year of graduate studies in chemistry.

David and Rachelle Chertkow Healthy Families Essay Prize
Value: $300
Application deadline: January 30
Tenable: Summer semester
Terms of reference: One award for a graduate student in any Faculty who is pursuing research in the area of healthy families. The prize will consist of the cash award plus a plaque or certificate. The criteria include demonstrated academic excellence at the undergraduate or graduate level and submission of an essay/research paper on promoting healthy families, or prevention of family violence.

Israel Chertkow Memorial Scholarship in Gerontology
Value: $150
Application deadline: September 30 (by nomination)
Tenable: January
Terms of reference: Awarded to the top graduating student in the Gerontology Diploma Program. It is made by nomination by the Director of the Gerontology Research Centre. Nomination deadline: September 30.

Dr. J.V. Christensen Graduate Scholarship
Value: $500
Application deadline: September 30
Tenable: Spring semester
Terms of reference: One award for a graduate student who is pursuing, or intends to pursue, a graduate degree in history or archaeology.

Barry Clark Memorial Graduate Scholarship in Pre-Twentieth Century English Literature
Value: $800
Application deadline: September 30
Tenable: January
Terms of reference: One award for a graduate student in English, specializing in pre-twentieth century English literature.

Coastal Zone Canada (B.C.) Association Graduate Student Scholarship in Coastal Studies.
Value: $750
Application deadline: May 30 (by nomination)
Tenable: September
Terms of reference: One award to provide financial support for a graduate student focussing on community-based approaches to coastal management, specific to issues within the province of BC. Student must be affiliated with the Centre for Coastal Studies.

COGECO Graduate Scholarship in Communications
Value: $12,000
Application deadline: September 30
Tenable: January and May
Terms of reference: One two-semester award for a graduate student in Communication.

Samuel and Leatrice Cohen Prize in Environmental Physiology
Value: $600
Application deadline: September 30
Tenable: January
Terms of reference: One prize to recognize the best student paper resulting from graduate research in the field of environmental physiology.

The Graduate Prize in Computing Science
Value: $150
Application deadline: January 30 (by nomination)
Tenable: May
Terms of reference: One prize is awarded to the top graduate student in computing science from income earned from the Graduate Prize in Computing Science endowment fund.

Cook Conference Scholarship
Value: $1,500
Application deadline: January 30
Tenable: May
Terms of reference: One or more scholarships will be awarded to graduate students studying in any field of history on the basis of high academic performance.

Criminology Graduate Student Research and Education Grants
Value: maximum of $250 each
Application deadline: January 15, September 15
Tenable: May or January
Terms of reference: Travel grants for graduate students in the School of Criminology to travel to conduct research or participate at a conference, workshop or attend a course.

Isabel Dawson Memorial Scholarship in Gerontology
Value: $150
Application deadline: September 30
Tenable: January
Terms of reference: To provide financial recognition to an outstanding student engaged in research or study in gerontology.

Gordon Dievert Graduate Scholarship in Kinesiology
Value: $1,000
Application deadline: May 30
Tenable: September
Terms of reference: Awarded to a graduate student on the basis of high academic performance and study in the area of motor learning in kinesiology. This fund has been established in honor of Dr. Gordon Dievert for his contribution to the School of Kinesiology at Simon Fraser University.

Downtown Vancouver Association Graduate Awards in Urban Studies
Value: varies
Application deadline: May 30 (by nomination)
Tenable: September
Terms of reference: A one-semester award to recognize and reward an outstanding student pursuing a graduate degree in Urban Studies who submits the best essay or project in a given year. A student must be nominated for the award by the Chair of the Department.

Doug Drummond Research Fellowship
Value: $2,500
Application Deadline: May 30
Tenable: Fall
Terms of Reference: A one-semester award for a graduate student pursuing research on subjects related to the planning and management of the environment and infrastructure of the City of Burnaby. The fellowship is granted in recognition of the work of Doug Drummond, Mayor of the City of Burnaby (1996-2002) in building effective relationships between the City of Burnaby and Simon Fraser University.

Dr. Ellen Gee Memorial Graduate Scholarship for Excellence
Value: $500
Application deadline: September 30 (by nomination)
Tenable: December
Terms of reference: One or more awards valued between $700 and $1,400 each are available to graduate students who are pursuing, or intend to pursue, a graduate degree in Business Administration at the Segal Graduate School of Business. Students must be nominated for the award by the Dean of the Faculty of Business Administration.

HSBC Graduate Award in Business
Value: $5,000
Application deadline: May 31 (by nomination)
Tenable: September and January
Terms of Reference: Two-semester awards to graduate students who are pursuing, or intend to pursue, a graduate degree in Business Administration at the Segal Graduate School of Business. Students must be nominated for the award by the Dean of the Faculty of Business Administration.

EbcO/Epic Graduate Scholarships in Expert Systems
Value: $3,500
Application deadline: May 31 (by nomination)
Tenable: Fall
Terms of reference: One award for a student pursuing a graduate degree program in the Department of Science and Technology. Students must be nominated for this award by the chair of the department.

Simon Fraser University  2005 • 2006
The Cy and Emerald Keyes Graduate Scholarship
The Franklin D. and Helen K. Van Pykstra Graduate Scholarship
The Bel Construction Ltd. Graduate Scholarship
The BC Welding Supplies Ltd. Graduate Scholarship
The Clark, Wilson Graduate Scholarship
The Canadian Liquid Air Ltd. Graduate Scholarship
The Hanson Inc. Graduate Scholarship
The Deskim Sales Graduate Scholarship
The Jardine Rolfe Ltd. Graduate Scholarship
The Nova-Tech Engineering Inc. Graduate Scholarship
The Westak International Sales, Inc. Graduate Scholarship
The Trancoso Tool and Equipment Ltd. Graduate Scholarship
The ABC Recycling Ltd. Graduate Scholarship
The Robar Industries Limited Graduate Scholarship
The Opus Building Corporation Graduate Scholarship
Borden Ladner Gervais Graduate Scholarship
The Pacific Metals/Leon Lotzkar Memorial Graduate Scholarship
The Backwater Industries/Jost Family Graduate Scholarship
The Global (West) Wholesalers Ltd. Graduate Scholarship
The Kreykenbohm Family Graduate Scholarship
The Anna Kreykenbohm Graduate Scholarship
The Wilm Kreykenbohm Kreykenbohm Scholarship
The Michael and Grace Kreykenbohm Scholarship

Students are nominated for these awards by the director of the Centre for Systems Science.

Application deadline: September 30.

Editors’ Association of Canada/Association Canadienne de Réviseurs, BC Branch Graduate Scholarship in Publishing Studies

Value: $250
Application deadline: May 30
Tenable: September
Terms of reference: A one-semester award for a student pursuing a Master of Publishing degree. Application must be accompanied by a sample of professional, academic or business writing or a portfolio piece.

Emergency Preparedness Conference Scholarship in Emergency Communications

Value: $2,000
Application deadline: September 30
Tenable: January
Terms of reference: An award to provide financial support for a graduate student in the School of Communication or other appropriate area in the emergency communications field, pursuing an applied research project in the area of emergency/disaster management.

Executive MBA Alumni Scholarship

Value: $500-$2,500 each
Application deadline: September 30, January 30, May 30
Tenable: January, May, September
Terms of reference: One or more scholarships awarded to graduate students in the first, second, or third years of the Executive Master of Business Administration program (EMBA).

Faculty of Education Field Programs Research Fellowships

Value: $2,400 (Master's) $2500 (PhD)
Application deadline: by the end of the second month of the semester preceding the semester of tenure
Tenable: any semester
Terms of Reference: A one-semester award for students who have identified the topic of “teacher inservice professional development” as their area of interest and plan to undertake a thesis in which the investigation is closely related to the work of field programs in the Faculty of Education. Students may receive the award only once during the term of their graduate program.

Dr. E. A. Fatallah Graduate Scholarship in Criminology

Value: $2,000
Application deadline: September 30
Tenable: January
Terms of reference: An award to a graduate student in Criminology pursuing graduate work in the area of victimology. Student should show promise of outstanding achievement at the graduate level with particular emphasis on intellectual ability, originality and ability in research.

Dr. Marguerite Fauquenoy Graduate Scholarship in French

Value: $4,000
Application deadline: September 30 or January 30
Tenable: January or May
Terms of reference: One award to a graduate student who has completed at least one semester of graduate work at Simon Fraser University in the area of French linguistics, varieties of French, French-based Creoles, French literature, or French studies.

Professor Thelma Finlayson Fellowship

Value: $4,000
Application deadline: September 30
Tenable: January
Terms of reference: Professor Thelma Finlayson has established a fellowship to be offered to graduate students pursuing studies toward the Master of Pest Management degree. Preference will be given to students working in the field of entomology.

French Memorial Graduate Scholarship

Value: $1,200
Application deadline: May 30
Tenable: September
Terms of reference: One award for a graduate student in French.

Mahatma Gandhi Memorial Scholarship in Kinesiology

Value: $700
Application deadline: January 30
Tenable: May
Terms of reference: A scholarship will be awarded to a Kinesiology graduate student whose research interests are in the areas of nutrition and/or aging. Preference may be given to students who are considered to be deserving and financially needy.

Glen Geen Graduate Scholarship in Marine Biology

Value: $500
Application deadline: September 30
Tenable: January
Terms of reference: One award for a graduate student in Biological Sciences with a concentration on marine biology.

German Canadian Benevolent Society of British Columbia Aulinger Award in Gerontology

Value: $600
Application deadline: September 30
Tenable: January
Terms of reference: The Aulinger Award in Gerontology provides financial support for a graduate student pursuing a master’s degree in Gerontology. Emphasis is on high academic performance and a research focus on aging and the built environment or on health promotion and aging.

Sidney Hogg Memorial Graduate Scholarship

Value: $750
Application deadline: September 30
Tenable: January
Terms of reference: Mrs. Sidney Hogg has established an endowment, the earned income thereof to provide a perpetual scholarship annually. This scholarship is to be awarded to a graduate student in science who needs financial assistance in order to continue studies and who is qualified in terms of character and scholarship. The award may be held in conjunction with other awards.

Imperial Order of the Daughters of the Empire Seaman Morley Scott Memorial Graduate Scholarship

Value: $300
Application deadline: September 30
Tenable: January
Terms of reference: A graduate scholarship in memory of Dr. Seaman Morley Scott will be awarded annually to a female graduate student who is a Canadian citizen who demonstrates high meritorious performance in her academic program.

International Reading Association Scholarship

Value: $700
Application deadline: January 30
Tenable: May
Terms of reference: One scholarship awarded to a full or part time graduate student pursuing studies in literacy education.

Daniel Janzen Memorial Graduate Scholarship

Value: $2,800
Application deadline: September 30 (by nomination)
Tenable: January
Terms of reference: Established in memory of Daniel Janzen by his friends and family. To provide financial support to a graduate student studying for an MA degree in economics or political science, or an MBA in business administration. Preference, when possible, will be given to a student coming to Simon Fraser University from the University College of the Fraser Valley.

Billy Jones Memorial Graduate Scholarship

Value: $2,800
Application deadline: September 30
Tenable: September
Terms of reference: One or more scholarships for students pursuing studies toward the Master of Pest Management degree. Preference will be given to students coming to Simon Fraser University from the University College of the Fraser Valley.

Dr. Tai Whan Kim Memorial Graduate Scholarship in Languages and Linguistics

Value: $1,000
Application deadline: May 30
Tenable: September
Terms of reference: One award for a graduate student pursuing a master’s or PhD degree in romance languages, romance linguistics or a related field.

Leon J. Ladner Graduate Scholarship in B.C. History

Value: $500
Application deadline: January 30
Tenable: May
Terms of reference: One or more scholarships for graduate students possessing high academic standing and a special aptitude for research and wishing to undertake postgraduate work in the field of British Columbia history.

Law Foundation Graduate Scholarship in Restorative Justice

Value: $2,500
Application deadline: May 30 (by nomination)
Tenable: September
Terms of reference: For a student who is pursuing or intends to pursue a graduate degree in Criminology focusing on research conducted within the Centre for Restorative Justice. A student will be nominated for the award by the Co-directors of the Centre for Restorative Justice.
Frank A. Linville Graduate Scholarship in Sensory Science
Value: $6,000
Application deadline: May 30
Tenable: Fall
Terms of reference: One semester awards for students pursuing a graduate degree program whose research is on sensory science. Award criteria include demonstrated academic excellence and promise of outstanding achievement at the graduate level with particular emphasis on intellectual ability, originality and ability in research.

H.R. MacCarthy Graduate Bursary
Value: $6,000
Application deadline: September 30
Tenable: January
Terms of reference: The H.R. MacCarthy Bursary Endowment Fund provides financial support for a graduate student in biological sciences with preference given to a student studying the biology and management of pest organisms. The award will be based on financial need, good academic standing, and promise of service to mankind through the application of science.

MacMillan Bloedel MBB Graduate Scholarship
Value: $4,400 (MSc)
Application deadline: September 30
Tenable: January
Terms of reference: One or more scholarships for Master of Science students carrying out research in the Department of Molecular Biology and Biochemistry.

MacMillan Bloedel MBB Graduate Scholarship
Value: $5,000 (PhD)
Application deadline: September 30
Tenable: January
Terms of reference: One or more scholarships for Doctor of Philosophy students carrying out research in the Department of Molecular Biology and Biochemistry.

Marie Magrega Memorial Graduate Award in Gerontology
Value: $300.00
Application deadline: September 30
Tenable: any semester
Terms of reference: Established in memory of Marie Magrega by her son, Dr. Dennis Magrega, to promote and encourage the study of Gerontology. One award will be disbursed annually to a graduate student registered in the MA program in Gerontology. The student must be nominated by the Director of the Gerontology Program.

Management of Technology MBA Graduate Scholarships
Value: $10,000
Application deadline: by nomination
Tenable: any semester
Terms of reference: Two scholarships per calendar year, to full time students entering the 'accelerated cohort' after a minimum of two years of employment in the high-tech industry in a professional capacity. Students must be nominated by the Academic Director of the Management of Technology Program to the Dean of Graduate Studies.

Temple Maynard Graduate Scholarship in English
Value: $10,000
Application deadline: May 30 (by nomination)
Tenable: two consecutive semesters
Terms of reference: one or more scholarships will be awarded to students in a graduate program in English.

Temple Maynard Memorial Graduate Bursary in English
Value: $2,000
Application deadline: May 30
Tenable: September
Terms of reference: One bursary for a graduate student in English.

MBB Alumni Graduate Scholarship
Value: varies
Application deadline: September 30
Tenable: any semester
Terms of reference: One award for a graduate student who is in the first nine semesters of a master's program or in the first 15 semesters of a doctoral program and who is conducting research in molecular biology and biochemistry.

Catherine Ann McKay Publishing Award
Value: $1,000
Application deadline: March 15 (by nomination)
Tenable: May
Terms of reference: One award to defray a student's expenses incurred while participating in the internship component of the Master's of Publishing program.

Colin McPhee Graduate Scholarship in Fine Arts
Value: $4,400 for a master's student, $5,000 for a doctoral student
Application deadline: April 15
Tenable: September
Terms of reference: A one-semester award for a student pursuing a graduate degree in any art discipline in the School for the Contemporary Arts. A student who applies for a Graduate Fellowship will automatically be considered for this scholarship.

Ann and William Messenger Graduate Fellowships in English
Value: $7,000
Application deadline: May 30 (by nomination)
Tenable: September or January
Terms of reference: A one semester award for student(s) pursuing a graduate degree (M.A. or Ph.D.) in English. Up to three awards will be granted in a given year. Students must be nominated for this award by the Chair of the Department.

Methanex Graduate Scholarship in International Marketing
Value: $5,000 per year
Application deadline: by nomination by January 30
Tenable: May
Terms of reference: One award per year to an outstanding student pursuing a Specialist Master of Business Administration degree with a focus on international marketing.

Mutual Fire Insurance Company of B.C. Graduate Scholarship in Biological Sciences
Value: $5,000
Application deadline: September 30 (by nomination)
Tenable: January
Terms of reference: A one semester award for a student pursuing a Master's or Ph.D. degree in Biology with a focus on research applicable to British Columbia's poultry, dairy, ranch and/or crop agricultural industries. The student must be nominated for this award by the Chair of the Department.

R. Jack Nance Memorial Graduate Scholarship in Archaeology
Value: $500
Application deadline: September 30
Tenable: January
Terms of reference: A one semester award for a student pursuing a Master's or Ph.D. degree in Archaeology who has completed at least one semester of their graduate program.

National Council of Jewish Women (Vancouver Section) Graduate Scholarship in Women's Studies
Value: $700
Application deadline: September 30
Tenable: January
Terms of reference: One scholarship of approximately $700 for a graduate student in the first, second or third semester of women's studies.

Hemingway Nelson Architects Graduate Scholarship
Value: $1,500
Application deadline: September 30
Tenable: January
Terms of reference: One award for a graduate student carrying out research in the Department of Molecular Biology and Biochemistry.

Marshall Noble Memorial Graduate Bursary in Chemical Ecology
Value: $1,000
Application deadline: September 30
Tenable: January
Terms of reference: One bursary for a graduate student in the Chemical Ecology Research Group in the Faculty of Science.

NSERC Graduate Student Conference Travel Grants
Value: up to a maximum of $700
Application deadline: one month prior to proposed travel date
Tenable: any semester
Terms of reference: Applicants must be registered full-time in a master's or doctoral program in a field supported by NSERC in the natural sciences, life sciences and engineering and who are presenting a paper or chairing a session at a national or international meeting of a professional association or equivalent group. Awards are valued up to a maximum of $700 towards the air fare and registration fees only.

Dr. M. Sheila O'Connell Graduate Scholarship in Children's Literature
Value: $1,500
Application deadline: September 30 (by nomination)
Tenable: January
Terms of reference: One scholarship will be awarded in the spring semester to a graduate student majoring in the field of children's literature within the Faculty of Education or the Department of English. Students will be nominated by the Faculty of Education and the Department of English.

Dr. M. Sheila O'Connell Graduate Publication Scholarship
Value: $1,000
Application deadline: September 30
Tenable: January
Terms of reference: For a student pursuing a graduate degree with a concentration on children's literature within the Faculty of Education or the Department of English. The scholarship is intended to assist candidates in writing and publishing a children's story.

The Osteoporosis Society of Canada, Surrey White Rock Chapter, Graduate Scholarship in Kinesiology
Value: $2,500
Application deadline: September 30
Tenable: January
Terms of reference: One award for a student pursuing a graduate degree in kinesiology focusing on research related to the disease of osteoporosis.

Anne Peters Pinto Graduate Scholarship in Women's Studies
Value: $1,500
Application deadline: September 30
Tenable: January
Terms of reference: One award for a graduate student in Women's Studies.

Petro-Canada Graduate Scholarship in Earth Sciences
Value: $3,000
Application deadline: September 30
Tenable: January
Terms of reference: One scholarship to a student pursuing a graduate degree in earth sciences in the Faculty of Science.

Dr. L. B. Peter Rae Memorial Award in Business Ethics
Value: $1,000
Application deadline: September 30
Tenable: January
Terms of reference: One award to recognize a student pursuing an MBA or EMBA and whose thesis or MBA project addresses issues in business ethics.

Rogers Communications Inc. Graduate Scholarship in Communication
Value: $4,000
Application deadline: September 30
Tenable: January
Terms of reference: One or more scholarship(s) awarded annually to graduate students in the School of Communication with a particular interest in issues related to broadcasting or cable.

Rotary Club of Burnaby Scholarship
Value: $1,000
Application deadline: September 30
Tenable: January
Terms of reference: A scholarship of $1,000 has been established by the Rotary Club of Burnaby for a graduate student in the Faculty of Education in recognition of scholarly merit and the advancement of education practice.

Phillip Rutherford/Harper Collins Memorial Bookstore Internship
Value: $1,000
Application deadline: January 30
Tenable: May
Terms of reference: This award provides a bookstore internship for a student in the Master of Publishing Program, normally in BC for three to four weeks.

William and Jane Saywell Graduate Scholarship in History
Value: $1,000
Application deadline: January 30
Tenable: May
Terms of reference: One or more awards for graduate students in History.

Scotiabank Global Asset and Wealth Management MBA Scholarship in Business Administration
Value: $5,000
Application deadline: May 30 and/or September 30
(by nomination)
Tenable: September, January or May
Terms of reference: A two-year scholarship is awarded annually to a graduate student in the Master of Business Administration Program specializing in marketing, international business or policy analysis.

Ethel Barbara Tuck Graduate Scholarship in Education
Value: $12,000
Application deadline: September 30
Tenable: Spring and Summer semesters
Terms of reference: A one semester award for a graduate student pursuing a master's degree in education who intends to practice as a teacher specializing in remedial reading with children or youth experiencing reading difficulties.

University Women's Club of Vancouver Graduate Scholarship in Earth Sciences
Value: $1,000
Application deadline: May 30
Tenable: September
Terms of reference: One award for a female student pursuing a Master's or Doctoral degree in the Department of Earth Sciences.

VanCity Environmental Graduate Scholarship
Value: $5,000
Application deadline: May 30
Tenable: September and January
Terms of reference: One award for a graduate student enrolled in the Natural Resources Management Program who is researching environmental and resource management problems in British Columbia.

University Administered External Awards

Canadian Institutes of Health Research (CIHR)
Value: $17,500 year
Application deadline: November 1
Tenable: annual
Terms of reference: The Canada Graduate Scholarships Master's Awards administered by CIHR are intended to provide special recognition and support to students who are pursuing or intend to pursue a master's degree in a health related field in Canada. Candidates are expected to have an

Linda Waddell Memorial Scholarship in Publishing Studies
Value: $2,000
Application deadline: May 30
Tenable: September
Terms of reference: Sponsored by Penguin Canada for a student pursuing a master's degree in Publishing Studies.

Lis Welch Graduate Scholarship in Education
Value: $2,800
Application deadline: September 30
Tenable: two consecutive semesters
Terms of reference: For a master's or PhD student in the Faculty of Education. Preference will be given to a Canadian citizen or landed immigrant.

Garfield Weston Foundation/BC Packers Limited Graduate Fellowship in Marine Sciences
Value: $16,000
Application deadline: May 30
Tenable: September, January and May
Terms of reference: One scholarship is awarded annually to a student pursuing a graduate degree in marine science-based educational, research and/or development activities that support or enhance the aquaculture and/or commercial wild fishing industries in Canada.

Dr. John Yorston Memorial Graduate Scholarship in Pest Management
Value: $5,000
Application deadline: May 30
Tenable: September
Terms of reference: Sponsored by the Pest Management Research and Development Council of Canada for a student pursuing science-based educational, research and/or development activities that support or enhance the pest management industries in Canada.

Linda Waddell Memorial Scholarship in Publishing Studies
Value: $2,000
Application deadline: May 30
Tenable: September
Terms of reference: Sponsored by Penguin Canada for a student pursuing a master's degree in Publishing Studies.

Lis Welch Graduate Scholarship in Education
Value: $2,800
Application deadline: September 30
Tenable: two consecutive semesters
Terms of reference: For a master's or PhD student in the Faculty of Education. Preference will be given to a Canadian citizen or landed immigrant.

Garfield Weston Foundation/BC Packers Limited Graduate Fellowship in Marine Sciences
Value: $16,000
Application deadline: May 30
Tenable: September, January and May
Terms of reference: One scholarship is awarded annually to a student pursuing a graduate degree in marine science-based educational, research and/or development activities that support or enhance the aquaculture and/or commercial wild fishing industries in Canada.

Madame Justice Bertha Wilson Graduate Bursary
Value: $2,500
Application deadline: September 30
Tenable: January
Terms of reference: One bursary is available to a graduate student pursuing research that has a focus on the feminist analysis of law and society, Academic excellence and financial need will be considered.

Lang Wong Memorial Endowment Scholarship in Economics
Value: $1,000
Application deadline: January 30
Tenable: May
Terms of reference: One scholarship to a graduate student in Economics who has completed one semester of graduate work and is a citizen of an Asian developing country.

Lang Wong Memorial Endowment Scholarship in Engineering
Value: $1,000
Application deadline: January 30
Tenable: May
Terms of reference: One scholarship to a graduate student in Engineering who has completed one semester of graduate work and is a citizen of an Asian developing country.

Dr. John Yorston Memorial Graduate Scholarship in Pest Management
Value: $1,000
Application deadline: May 30
Tenable: September
Terms of reference: One award for a graduate student in the Master of Pest Management Program specializing in crop protection, plant pathology and nematology.

University Administered External Awards

Canadian Institutes of Health Research (CIHR)
Value: $17,500 year
Application deadline: November 1
Tenable: annual
Terms of reference: The Canada Graduate Scholarships Master's Awards administered by CIHR are intended to provide special recognition and support to students who are pursuing or intend to pursue a master's degree in a health related field in Canada. Candidates are expected to have an
exceptionally high potential for future research achievement and productivity. Candidates must have completed or be in the last year of a bachelor’s degree or have been registered for no more than 10 months as a full-time student in a master’s program. Only those students engaged in full-time master’s programs in which research is a major component and who are studying under the supervision of faculty members holding research funds obtained through a competitive peer reviewed process are eligible to apply.

Imperial Order of the Daughters of the Empire War Memorial Doctoral Scholarships

Value: $12,000; $15,000
Application deadline: December 1
Terms of reference: Eight scholarships will be offered for study towards a doctoral degree (master’s degree or equivalent must be completed or in progress at time of application).
Eligibility: Canadian citizens; must have done or be doing postgraduate work in any field at any university.
Value: $12,000 for study in Canada, $15000 for study within the Commonwealth. Note: A candidate must apply in the province of the university from which he/she has graduated. Further information is available from the Office of the Dean of Graduate Studies.

Mackenzie King Open Scholarships

Value: $7,500
Application deadline: February 1
Terms of reference: One award will be offered for study in any field at any university.
Eligibility: graduates of any Canadian university.
Value: $7,500.
Deadline: February 1 to Dean of Graduate Studies

Mackenzie King Travelling Scholarships

Value: $10,000
Application deadline: February 1
Terms of reference: Four scholarships are available for study in the fields of international or industrial relations (including the international or industrial aspects of law, history, politics and economics).
Eligibility: Graduates of any Canadian university who propose to engage in postgraduate study of international relations or industrial relations in the United States or the United Kingdom.
Deadline: February 1 to Dean of Graduate Studies.

Natural Sciences and Engineering Research
council Awards

Value: varies (see below)
Deadline: October 15
Tenable: annual
Terms of reference: NSERC offers postgraduate awards and postdoctoral fellowships in science including interdisciplinary research, physical geography and experimental psychology, and engineering. Canadian citizens and permanent residents who at the time of application are residing in Canada are eligible. Four categories of postgraduate awards are available:

NSERC PGS M
Value: $17,300 for one year
Deadline: October 15
Tenable: annual
Terms of reference: available to students for the first and second years of postgraduate study either at the master’s or doctoral level (MA, MSc, PhD).

NSERC CGS M
Value: $17,300 for one year
Deadline: October 15
Tenable: September, January, May
NSERC PGS D
Value: $21,000
Deadline: October 15
Tenable: annual
Terms of reference: tenable during the third and fourth or fourth and fifth year of doctoral study. Website: www.nserc.ca. Further information is available from the Office of the Dean of Graduate Studies.

NSERC CGS D
Value: $35,000 per year for up to three years
Deadline: October 15
Tenable: September, January, May

NSERC Industrial Postgraduate Scholarships (IPS)
Industrial postgraduate scholarships provide financial support for highly qualified science and engineering graduates. The support allows them to gain research experience in industry while undertaking advanced studies in Canada. These scholarships are aimed at encouraging scholars to consider research careers in industry.
IPS 1
Value: $15,000 per year for up to two years plus company contribution of $6,000 minimum per year
Deadline: may apply at any time
Tenable: September, January, May during the first three years of postgraduate study
IPS 2
Value: $15,000 per year for up to two years plus company contribution of $6,000 minimum per year
Deadline: may apply at any time
Tenable: September, January, May; must be held during the third and fourth or fourth and fifth years of graduate study

Northern Scientific Training Program (NSTP)
Value: varies
Application deadline: mid-November latest
Tenable: Summer semester
Terms of reference: This program is administered by SFU on behalf of the Department of Indian and Northern Affairs to assist with funding of graduate student research. NSTP will help pay for transportation and living costs while conducting practical field experiences in northern Canada.
Eligibility: Students must be Canadian citizens or permanent residents. Further information is available from the Dean of Graduate Studies office, MBC 1100.

Michael Smith Foundation for Health Research Trainee Award Programs
(1) Master’s/Doctoral Studentship Award
Value: $20,000 per year stipend
Research/travel allowance: $2,500 per year
Application deadline: November 1 (approximate in last few years)
Tenable: two years maximum for a master’s award, non-renewable; five years for a doctoral award, or combination of master’s and doctoral awards.
Terms of reference: Open to highly qualified individuals at the master’s, and doctoral levels who wish to pursue a career in an area of health research in BC and whose research fits one of the following: biomedical research, clinical research, research respecting health systems and health services, research on societal, cultural and environmental influences on health and the health of populations.
Candidates must be either a Canadian citizen or permanent resident of Canada at the time the award is taken up.

(2) Postdoctoral Fellowship Award
Value: $35,000 to $45,000
Research/travel allowance: $4,000 per year
Application deadline: varies
Tenable: Initially for two years, with the possibility of an additional one year extension.
Terms of reference: To enable highly qualified post graduates to prepare for careers in health research as independent investigators in biomedical research, clinical research, research respecting health systems and health services, research on societal, cultural and environmental influences on health and the health of populations.
Information and application forms are available through the Office of the Dean of Graduate Studies, MBC 1100. Applications, guidelines and information regarding eligibility are also available for download from the MSFR website located at www.msfr.org

Social Sciences and Humanities Research Council Awards
Canada Graduate Scholarships (CGS) Master’s Program
Value: $17,500 per year
Application deadline: November 5
Tenable: One year, non-renewable
Terms of reference: Applicants must be applying for support to pursue a first graduate degree and not have completed, by the time of taking up the award, more than 12 months of full-time study.

DCGS Doctoral Scholarships
Value: $35,000 per year for up to three years
Application deadline: November 5
Tenable: Annual
Terms of reference: SSHRC offers doctoral support in the humanities and social sciences. Applicants must be Canadian citizens or permanent residents, living in Canada. Applicants must have completed a master’s degree or at least one year of doctoral study, and will be pursuing full-time studies leading to a first PhD or its equivalent. The deadline for applications to the appropriate SFU department is approximately October 15. Website: www.sshrc.ca. Further information is available from the Office of the Dean of Graduate Studies.

DCGS Doctoral Fellowships
Value: $20,000 per year

Externally Administered Awards

The following awards are not administered by Simon Fraser University. The information is intended for general reference only; it may be subject to change. The student is responsible for enquiring and applying through the appropriate agency as indicated in the description.
In some instances, applications can be obtained from the Office of the Dean of Graduate Studies.

Awards Administered by the International Council for Canadian Studies

Value: varies
Application deadline: October
Terms of reference: The ICCS administers a number of national and international programs on behalf of Canadian and foreign donors. A brief description of some of the awards is given below. A comprehensive list of awards, including those offered for study abroad, is available from International Council for Canadian Studies, 800 – 325 Dalhousie Street, Ottawa, Ontario, K1N 7G2. Deadlines for application are normally in October of each year. Website: www.iccs-ciec.ca.

BC Medical Services Foundation Predoctoral Fellowships
Value: $20,000
Application deadline: April 26
Tenable: three consecutive semesters
Terms of reference: For outstanding new research scientists in the health sciences, for the first or second year of doctoral studies in any discipline (gerontology, kinesiology, psychology, education). Applications related to applied clinical research, population health research, or health systems and services will be considered.

BC Medical Services Foundation Summer Research Scholarships
Value: $5,000
Application deadline: January 11

Simon Fraser University 2005 • 2006
Tenable: Summer semester
Terms of reference: 15 awards for outstanding graduate students in any discipline in the health sciences (gerontology, kinesiology, psychology, education) for the year of study. Application forms are available at www.vancouverfoundation.bc.ca.

Canadian Federation of University Women Fellowships
A candidate for any of the following awards must be a Canadian citizen or must have held Landed Immigrant status for one year prior to submitting application. Information and application forms are available from: The CFUW, 600 – 251 Bank Street, Ottawa, Ontario, K2P 1X3, and the Dean of Graduate Studies Office.

Margaret McWilliams Pre-doctoral Fellowship
Value: $10,000
Deadline: November 15
Tenable: one year
Terms of reference: One fellowship of $10,000 is awarded annually to a pre-doctoral woman scholar in any field of study, (master’s degree or equivalent), at least one year into doctoral program; may be studying abroad.

Professional Fellowship
Value: $5,000
Deadline: November 15
Terms of reference: This fellowship of $5,000 is open to any woman who has completed a bachelor’s degree from a Canadian university and who is enrolled in graduate work below the PhD level at an accredited professional school. One Professional Fellowship is awarded. The student may be studying abroad.

Alice E. Wilson Grants
Value: $1,000
Deadline: November 15
Terms of reference: Three grants of $1,000 each are to assist in refreshers, special study, or training in new techniques. Applicants must have a bachelor’s degree or equivalent from a recognized university.

Margaret Dale Philip Award
Value: $1,000
Deadline: November 15
Terms of reference: This award of $1,000 is open to any woman scholar who holds a bachelor’s degree from a Canadian university, who resides in Canada and who wishes to embark on, or continue a program leading to an advanced degree in the field of humanities or social sciences. Special consideration will be given to candidates who wish to specialize in Canadian history.

International Federation of University Women
Value: varies
Deadline: November 15
Terms of reference: Research fellowships, grants and bursaries. Applicants must be members of CFUW. Deadline: approximately November 15. For detailed information contact: International Federation of University Women, 37, Quai Wilson, CH 1201, Geneva, Switzerland.

Commonwealth Scholarship Plan
Value: varies
Application deadline: October
Tenable: two years
Terms of reference: The Commonwealth Scholarship and Fellowship Plan offers awards to graduate students in Commonwealth countries to pursue advanced degrees. They are normally tenable for two years in any of the following countries: Australia, Ghana, Hong Kong, India, Jamaica, Malaysia, New Zealand, Nigeria, Sri Lanka, Trinidad and Tobago, Uganda, United Kingdom.

J. Armand Bombardier International Fellowships (formerly Celanese Canada Internationalist Fellowships)
Value: $10,000
Application deadline: March 1
Tenable: one academic year
Terms of reference: Fellowships to Canadians and permanent residents of Canada who wish to pursue studies, conduct research, or work abroad to develop their international awareness. A key objective is to further Canada's participation in the world economy. Targeted at outstanding university graduates of proven academic merit in any discipline and demonstrated personal suitability. Applicants must hold at least one university degree (no longer than five years from the date of application), or are currently in the final year of a degree program. Fellowships are non-renewable. Information and application forms are available through the Office of the Dean of Graduate Studies, MBC 1100. For full information about these awards, visit the J. Armand Bombardier Internationalist Fellowships website at www.cbie.ca/.

International Development Research Centre
Value: $20,000
Terms of reference: IDRC offers a number of awards to graduate students in Canadian universities to facilitate their involvement in Third World issues. Eligibility: Canadian citizens or landed immigrants who have completed course work at graduate level and who have an affiliation with an institution in a developing country.
Value: Up to $20,000 per award. For full information about these awards, visit www.idrc.ca.

OMAE Calgary Chapter (ASME) Graduate Scholarship
Value: $2,000 – $4,000
Terms of reference: Annual scholarship, ranging from $2,000 to $4,000 from the American Society for Offshore Mechanics & Arctic Engineering (ASME). For graduate students at Simon Fraser University, University of British Columbia, University of Victoria, University of Saskatchewan, University of Regina and University of Manitoba, with preference to applicants doing thesis work that applies to offshore mechanics, Arctic or pipeline engineering.

Queen Elizabeth II British Columbia Centennial Scholarship
Value: $20,000
Application deadline: March 31
Tenable: Any semester
Terms of reference: The purpose of this scholarship is to enable selected British Columbians who have graduated from a public university in BC to take further studies at approved universities in the British Commonwealth, except Canada. Eligibility: a graduate of the University of British Columbia, the University of Victoria, Simon Fraser University or the University of Northern British Columbia a) who has attended any British Columbia public university for a minimum of two years; b) whose ordinary domicile, home or residence is in BC; c) who is a Canadian citizen. Deadline: March 31. Applications are available in the Office of the Dean of Graduate Studies. All enquiries, applications and all documents pertaining to this scholarship must be forwarded directly to the Chief of Protocol, Ministry of Finance and Corporate Relations, Parliament Buildings, Victoria, BC, V8V 1X4.

Rhodes Scholarships
Value: £12,000
Application deadline: September 30
Terms of reference: The Rhodes Trustees offer annual scholarships in the Province of British Columbia one Rhodes Scholarship, which is tenable at Oxford University for two years, and renewable for a third year. Eligibility: Canadian citizens or British subjects who have been ordinarily resident in Canada for at least five years by October 1st in the year of application; from 19 to 25 years of age on October 1st in the year of election, with at least three years of university study completed at time of tenure. Distinction of character and intellect are given most consideration in selection. Further information and application forms are available from the Financial Aid and Awards Office and the Office of the Dean of Graduate Studies.

Soroptimist Foundation of Canada
Value: $5,000
Application deadline: January 31
Tenable: May
Terms of reference: These are grants to assist female students with university studies which will qualify them for careers serving other women by improving the quality of their lives. Eligibility: registered in a graduate program or accepted for the final year of a four year undergraduate program. Must be Canadian citizens or permanent residents. For further information contact the Dean of Graduate Studies Office.

J.H. Stewart Reid Memorial Fellowship
Value: $5,000
Application deadline: April 30
Terms of reference: The J.H. Stewart Reid Memorial fellowship is open to doctoral students in any field at any Canadian university. Eligibility: a) Canadian citizen or landed immigrant; b) completion of at least one full academic year of graduate work by June 1; c) a first class academic record. Application forms are available from the Office of the Dean of Graduate Studies.Web: stewartreid.caut.ca

Cari H. Westcott Memorial Fellowship
Value: $5,000
Application deadline: June 26
Terms of reference: One scholarship is awarded annually to a student whose research work is being carried out at TRIUMF or on TRIUMF related projects. For further information contact the Dean of Graduate Studies Office.

International Federation of University Women
Value: varies
Application deadline: November 15
Terms of reference: Research fellowships, grants and bursaries. Applicants must be members of CFUW. For detailed information contact: International Federation of University Women, 37, Quai Wilson, CH 1201, Geneva, Switzerland.

Bursaries and Loans
Bursaries Administered by the University
The following regulations govern all bursaries over which the University has jurisdiction. The deadline to apply for bursaries is approximately eight weeks before the start of the semester.

Terms of reference:
Bursaries are a supplemental source of funding for students in high financial need. Students are expected to find their primary funding through other sources such as government student loan or grant programs, part time work, savings, family, etc.
Students must have a demonstrated financial need.
Students must have a minimum CGPA of 2.00 to be eligible for bursaries.
Graduate students must be registered for residence credit in an approved full time program for the semester of application. Students who do not register or subsequently change to on-leave or part time status may have their awards cancelled.
The student must apply on the Simon Fraser University Bursary application form. It is the student’s responsibility to meet applicable deadlines.
and supply all required documentation. Incomplete applications may be rejected.

• Unless otherwise stated, bursaries are tenable only at Simon Fraser University.
• Funds will be credited to the successful student’s account with the University. Outstanding debts to the University will be deducted from the bursary funds before a cheque for the credit balance is issued.
• Bursaries are tenable only for the semester indicated on the notice and may not be deferred. Students who do not register in the semester for which the bursary is granted forfeit the award. To be considered for bursaries in future semesters of registration, students must reapply.

Bursaries for All Students

Alumni Scholarship and Bursary Endowment Fund
Program code: GEBO-584
Value: 500
Awarded: Fall Spring Summer
Terms of reference: To undergraduate and graduate students. The awards are based on financial need and satisfactory academic standing.

Laura (Pat) Band and Richard W. Band Bursary for First Nations Students
Program code: GEBO-540
Value: 400
Awarded: Fall Spring Summer
Terms of reference: The bursary is granted in any semester based on financial need and community service to a student who is a member of the Squamish, Fort Langley, or Cheam First Nations and who have demonstrated volunteer involvement in service to the university or the community at large. The bursary may be granted to graduate or undergraduate students in all disciplines and fields of study. The successful student will have completed a minimum of 30 credits and will have achieved a minimum cumulative GPA of 2.33. The application should include a discussion of the student’s volunteer involvement in community activities and confirmation of the student’s status in the Squamish, Fort Langley or Cheam First Nations.

Birks Family Foundation Bursary
Program code: GPBO-551
Value: 500
Awarded: Fall Spring Summer
Terms of reference: The Birks Family Foundation has established a plan of annual contributions to the Student Aid Fund of recognized Canadian universities and colleges for the creation of these bursaries. The bursaries are awarded by the Foundation on the recommendation of the University Scholarship Committee, are not restricted by faculty or year, and may be renewed. The number and amount of such awards may vary annually depending upon the funds available from the Foundation.

The Honourable Angelo E. Branca and Mrs. Branca Bursary
Program code: GEBO-586
Value: 800
Awarded: Fall
Terms of reference: To students entering from secondary school. Applicants must demonstrate financial need and have satisfactory academic standing. Other bursaries valued approximately at one semester’s tuition are available to students from any faculty, who have a minimum of 60 credit hours at Simon Fraser University, have maintained satisfactory academic standing, and are in financial need. A Bursary Endowment Fund has been established in honor of Father Della-Torre for his 27 years of pastorate at the Sacred Heart Church, Vancouver. This fund will provide annual bursaries in perpetuity from the earned income.

Lois M. Fisher Bursary
Program code: GEBO-597
Value: 500
Awarded: Spring
Terms of reference: To a hard-working and deserving male student in need of financial assistance. Donated by Alex W. Fisher.

Graduate Emergency Bursaries
Program code: GUBO-401
Value: 100
Awarded: Fall Spring Summer
Terms of reference: Bursaries are available to graduate students who have critical financial need.

Hamber Foundation Bursary
Program code: GPBO-559
Value: 1000
Awarded: Fall
Terms of reference: To women students with satisfactory academic standing and need for financial assistance.

Blayne and Sharon Johnson Bursary
Program code: GEBO-523
Value: 1100
Awarded: Summer
Terms of reference: Granted on the basis of demonstrated financial need and satisfactory academic performance.

Charles Chan Kent Golden Wedding Bursaries
Program code: GPBO-563
Value: 500
Awarded: Spring
Terms of reference: To a student who is proceeding to a degree in any field, has successfully completed at least one year at Simon Fraser University, and needs financial assistance. Preferably the bursary will be made to a student of Chinese descent.

Dr. Carol Matusicky Family Studies Bursary
Program code: GEBO-708
Value: 450
Awarded: Spring
Terms of reference: The bursary is given on the basis of demonstrated financial need and satisfactory academic performance. Preference will be given to a student in the Certificate in Family Studies program or to a student in any faculty whose course work will prepare them to work with children, youth and families after university.

Jo-Ann Mychaluk Bursary
Program code: GEBO-602
Value: 750
Awarded: Fall
Terms of reference: To students with satisfactory academic standing. These bursaries are available to students who are or have been residents of the Chilcotin or Cariboo regions of BC. This fund has been established in memory of Jo-Ann Mychaluk who worked in the Centre for Distance Education.

Madeleine Nelson/Megan Thomas Bursary
Program code: GEBO-735
Value: 300
Awarded: Spring
Terms of reference: To undergraduate or graduate students based on demonstrated financial need and satisfactory academic performance. Preference will be given to mature female students beginning or returning to University.

Nikitman/Chan Bursary
Program code: GEBO-603
Value: 500
Awarded: Fall
Terms of reference: For mature, continuing students at Simon Fraser University, who have financial need and good academic standing. The Opimism Club is an organization of senior (60 years) students.

Office of the Registrar Bursary for Physically Challenged Students
Program code: GEBO-665
Value: 500
Awarded: Fall
Terms of reference: To physically challenged undergraduate or graduate students in any faculty. The bursaries will be granted to physically challenged students holding satisfactory academic records and who are experiencing financial need in the pursuit of studies.

William and Jane Saywell Bursary
Program code: GPBO-682
Value: 1500
Awarded: Fall
Terms of reference: To a student who is a single parent and who has demonstrated a deep commitment to any field of study at Simon Fraser University and has financial need. A letter is required that outlines and discusses their extracurricular activities and interests that would demonstrate commitment to the chosen field of study.

Mrs. Rosalie Segal Endowment Fund for Students With Special Needs
Program code: GEBO-604
Value: 500
Awarded: Fall
Terms of reference: This fund has been established to provide bursaries to physically challenged students. Up to 3 bursaries will be awarded on the basis of financial need. Adjudication will occur in consultation
with the Physically Challenged Students’ Co-ordinator.

Simon Fraser University Daycare Bursaries
Program code: GUBO-700
Value: 100
Awarded: Fall Spring Summer
Terms of reference: Applications for daycare bursaries are available at the Daycare Centre. Eligible students may qualify for a bursary provided that financial need can be demonstrated by a completed Canadian Student Loan assessment or an Open Bursary assessment. Daycare bursaries are available to both graduate and undergraduate students.

Simon Fraser University Disabled Graduate Student Award
Program code: GUBO-850
Value: 200
Awarded: Fall Spring
Terms of reference: An award of $2,000 per semester for one year may be made by the University to a disabled graduate student. The applicant must be a full time registered graduate student in good standing whose disability substantially increases the cost of study and who can demonstrate financial need.

 SFU International Students’ Bursary Fund
Program code: GUBO-600
Value: 500
Awarded: Fall Spring Summer
Terms of reference: This fund has been established to assist undergraduate visa students who have critical financial need. Students applying for this bursary must be registered in a minimum of 9 credit hours and have satisfactory academic standing.

Simon Fraser University Open Bursaries
Program code: GUBO-500
Value: 500
Awarded: Fall Spring Summer
Terms of reference: Must be registered in a minimum of 9 credit hours and have satisfactory academic standing.

Jennifer Allen Simons Bursary
Program code: GUBO-669
Value: 1000
Awarded: Fall Spring
Terms of reference: To an undergraduate or graduate woman student in any faculty. The bursary will be granted to a student who is a single parent supporting a child, and who is in financial need and who has satisfactory academic performance. Applicants must have completed one semester at Simon Fraser University as a full-time student.

Harry and Dora Annie Sme Bursary
Program code: GUBO-656
Value: 800
Awarded: Fall
Terms of reference: Up to 3 bursaries will be awarded to students in any faculty who have completed at least 30 credit hours at Simon Fraser University. The awards will be based on financial need and satisfactory academic standing. Preference will be given to female students.

Merle L. Smith Bursary
Program code: GPBO-572
Value: 525
Awarded: Fall Spring
Terms of reference: A physically challenged student in any faculty who is beyond first year studies. Initial preference will be given to wheelchair users.

Squamish Nation Bursary
Program code: GUBO-738
Value: 500
Awarded: Fall Spring Summer
Terms of reference: The bursary, based on financial need and community service, is granted to a student who is a member of the Squamish Nation. The bursary may be granted to graduate or undergraduate students in all disciplines. The successful student will have completed a minimum of 24 credits and will have achieved a minimum CGPA of 2.00. The application should include a discussion of the student’s involvement in SFU or Squamish Nation community activities and confirmation of the student’s status with the Squamish Nation.

TSSU Member Child Care Bursary
Program code: GUBO-550
Awarded: Fall Spring Summer
Terms of reference: TSSU employees are eligible to apply to the TSSU Member Child Care Bursary for each semester in which they hold an appointment and are registered as students at SFU and in which they receive child care services from a paid child care provider. All applications are subject to verification. The applicant must identify him/herself as an employee in the bargaining unit on the bursary application.

University Women’s Club of Vancouver Bursary
Program code: GPBO-575
Value: 985
Awarded: Spring
Terms of reference: To a female student in any faculty enrolled in any program of study leading to a degree. The basis of the award is demonstration of financial need and satisfactory academic standing.

Vancouver Foundation First Nations Bursary
Program code: GPBO-697
Value: 500
Awarded: Fall
Terms of reference: Bursaries will be available annually in the fall semester to undergraduate or graduate Aboriginal students (First Nations, status or non-status, Metis or Inuit) who permanently reside in British Columbia. Awards will be granted on the basis of demonstrated financial need and satisfactory academic performance.

Western Businesswomen’s Association Bursary
Program code: GUBO-705
Value: 800
Awarded: Fall
Terms of reference: To a full or part-time student who is either entering the University for the first time or returning after an absence. Preference will be given to a mature female student. The bursary will be based on satisfactory academic performance and demonstrated financial need.

Bursaries for Applied Sciences Students
Delcan Corporation Bursaries
Program code: GPBO-667
Value: 1000
Awarded: Spring
Terms of reference: To undergraduate and Graduate students registered full time in the faculties of Science or Applied Sciences. It is the intention of the Delcan Corporation to promote socio-environmental research and studies relative to major civil engineering projects; to support opportunities for women to enter careers at the management level in engineering; to increase high technological input into civil engineering, and to promote superior written and oral communication skills. Students will apply for these bursaries through Financial Assistance, and must include a letter of recommendation from the Office of the Dean of the major program.

Olga and Richard Murray Bursary in Applied Science
Program code: GUBO-725
Value: 1000
Awarded: Fall Spring Summer
Terms of reference: Granted to graduate or undergraduate students in the Applied Sciences. Faculty on the basis of demonstrated financial need and satisfactory academic performance. To the extent feasible, preference will be given to a student, or the spouse or child of a person, who is a member of the Telecommunication Workers Union or of Van-Tel Credit Union.

Dr. Tom Richardson Memorial Graduate Entrance Bursary
Program code: GUBO-726
Value: 1400
Awarded: Fall Spring
Terms of reference: To a graduate student entering Kinesiology or in the first semester of Kinesiology or for a student pursuing graduate studies in other Departments with a focus on biomedical engineering. The criteria for this award are: financial need; demonstrated academic excellence at the undergraduate level and, if applicable, at the graduate level; intention to enroll in the graduate program in Kinesiology or completion of the first semester in a graduate program in Kinesiology or intention to pursue research in biomedical engineering, or to become a graduate student in another department.

Vancouver Foundation Health Sciences Bursaries
Program code: GPBO-578
Value: 500
Awarded: Fall Spring
Terms of reference: The bursary assistance program is limited to full-time students studying in Health Sciences. The funds are directed to students who have completed at least two years of post-secondary education and can demonstrate financial need. Areas of study include any of the following: Pre-Med program, Kinesiology, Biomedical Engineering, and Gerontology.

Bursaries for Arts and Social Sciences Students
Adaline May Clark Bursary
Program code: GUBO-589
Value: 400
Awarded: Fall
Terms of reference: The late Mrs. Clark has provided funds for bursaries to enable students to attend, or continue to attend university. Students must be registered in the School for the Contemporary Arts, and must demonstrate financial need and a high level of achievement in the Arts.

Charles Dragan & Rose Anne Doonan Bursary in Labour History
Program code: GUBO-542
Value: 250
Awarded: Fall Spring Summer
Terms of reference: The bursary will be granted to a graduate or undergraduate student pursuing research in Labour History in the Faculty of Arts. Bursaries will be granted on the basis of demonstrated financial need and satisfactory academic performance.

Aird Dundas Flavelle Memorial Bursary
Program code: GUBO-659
Value: 1200
Awarded: Fall
Terms of reference: To a student who has completed at least 15 hours at Simon Fraser with a satisfactory academic standing and whose course of study is in the following areas: political science, economics and/or business administration.

Ancie and Arthur Fouks Bursary in Publishing Studies
Program code: GUBO-526
Value: 1000
Awarded: Fall
Terms of reference: One or more bursaries will be awarded annually in the Fall semester to a student enrolled in a degree program in Publishing Studies. Awards may also be given to graduate students

Simon Fraser University 2005 • 2006
Bursaries for Business Administration Students
Faculty of Business Administration Alumni Bursaries
Program code: GEB0-531
Value: 500
Awarded: Summer
Terms of reference: Bursaries will be awarded on the basis of demonstrated financial need and satisfactory academic performance to students in the Faculty of Business Administration.

Executive Master of Business Administration Bursary
Program code: GUBO-101
Value: 250
Awarded: Fall Spring Summer
Terms of reference: Bursaries are available for students of the Executive Master of Business Administration and who have demonstrated financial need. Bursaries will be awarded each semester to students in good academic standing who have special circumstances requiring financial support not available from a sponsoring organization, current income or assets. Students must submit a letter outlining their special circumstances with the bursary application.

Keith Gilbert Loughlin Bursary in Gerontology
Program code: GEB0-702
Value: 700
Awarded: Fall Spring
Terms of reference: Bursary will be awarded on the basis of demonstrated financial need and satisfactory academic standing. Preference will be given to a student specializing in quality of life issues in intermediate care facilities for seniors. Applicants should submit with their application, a letter outlining specialization or area of interest in the Gerontology field. A departmental nomination is to be submitted along with the application form.

MATCH International Centre Bursaries in Honour of Rosemary Brown
Program code: GPBO-607
Value: 625
Awarded: Summer
Terms of reference: Bursaries are available for full and part-time students in the Global Asset and Wealth Management MBA Program. The bursaries will be awarded each semester to students in good academic standing who have special circumstances requiring financial support not available from a sponsoring organization, current income or assets. Students must submit a letter outlining their special circumstances with the bursary application.

Dr. Grazia Merler Bursary in French
Program code: GEB0-714
Value: 500
Awarded: Spring
Terms of reference: Bursary will be awarded on the basis of demonstrated financial need and satisfactory academic performance. Preference will be given to a student in French on the basis of demonstrated financial need and satisfactory academic performance to full-time undergraduate or graduate students in the Department of Women's Studies.

Dr. Graziella Merler Bursary in French
Program code: GPBO-106
Value: 500
Awarded: Fall Spring Summer
Terms of reference: Bursary will be awarded on the basis of demonstrated financial need and satisfactory academic performance to students who are approved in the Master's of Public Policy degree program.

Dr. Grazia Merler Bursary in French
Program code: GUBO-107
Value: 500
Awarded: Fall Spring Summer
Terms of reference: Bursary will be awarded on the basis of demonstrated financial need and satisfactory academic performance to students who are approved in the Master's of Public Policy degree program.

Master of Public Policy Program Bursary
Program code: GUBO-106
Value: 500
Awarded: Fall Spring Summer
Terms of reference: Bursary will be awarded on the basis of demonstrated financial need and satisfactory academic performance to a mature student in the Faculty of Education. Preference will be given to mature graduate students in the Faculty of Education, in any program offered by the Faculty of Education, who have demonstrated financial need. Bursaries will be awarded each semester to students in good academic standing who have special circumstances requiring financial support not available from a sponsoring organization, current income or assets. Students must submit a letter outlining their special circumstances with the bursary application.

University Women's Club of Vancouver/Jean Beaty Memorial Bursary in Education
Program code: GEB0-519
Value: 700
Awarded: Summer
Terms of reference: Bursary will be awarded on the basis of demonstrated financial need and satisfactory academic performance to a mature student in the Faculty of Education.

University Women's Club of Vancouver/Jean Beaty Memorial Bursary in Education
Program code: GEB0-533
Value: 500
Awarded: Summer
Terms of reference: Bursary will be awarded on the basis of demonstrated financial need and satisfactory academic performance to students in the Faculty.

Master in Education (Off Campus) & Education Doctorate Program Bursary
Program code: GUBO-105
Value: 500
Awarded: Fall Spring Summer
Terms of reference: Bursaries are available for full and part-time students of the Master of Publishing program who have demonstrated financial need. Bursaries will be awarded each semester to students in good academic standing who have special circumstances requiring financial support not available from a sponsoring organization, current income or assets. Students must submit a letter outlining their special circumstances with the bursary application.

Management of Technology Master of Business Administration Bursary
Program code: GUBO-102
Value: 250
Awarded: Fall Spring Summer
Terms of reference: Bursaries are available for students of the Management of Technology Master of Business Administration and who have demonstrated financial need. Bursaries will be awarded each semester to students in good academic standing who have special circumstances requiring financial support not available from a sponsoring organization, current income or assets. Students must submit a letter outlining their special circumstances with the bursary application.

Hildegard and Cornelius Renner Graduate Bursary in Education
Program code: GEB0-517
Value: 800
Awarded: Fall Spring Summer
Terms of reference: Bursary will be awarded annually in any semester on the basis of demonstrated financial need and satisfactory academic performance to mature graduate students in the Faculty of Education. Preference will be given to mature graduate students with an interest in adult education. Application should...
include a discussion of the student applicant’s interest in adult education.

Bursaries for Science Students

Curzon-Digman Bursary
Program code: GEBO-594
Value: 750
Awarded: Fall Spring

Term of reference: Available to graduate students in physics or for majors or honours students in physics, mathematical physics, chemical physics, biophysics or other joint programs with physics. These bursaries are subject to financial need and academic ability. Nominations will be made by the Chair of the Physics Department in consultation with Financial Assistance.

Delcan Corporation Bursaries
Program code: GPBO-667
Value: 1000
Awarded: Spring

Term of reference: To undergraduate and Graduate students registered full time in the faculties of Science or Applied Sciences. It is the intention of the Delcan Corporation to promote socio-environmental research and studies relative to major civil engineering projects; to support opportunities for women to enter careers at the management level in engineering; to increase the technological input into civil engineering, and to promote superior written and oral communication skills. Students will apply for these bursaries through Financial Assistance, and must include a letter of recommendation from the Office of the Dean of the major program.

Urea Formaldehyde Foam Insulation Action Association Bursary
Program code: GEBO-607
Value: 250
Awarded: Fall Spring

Term of reference: To students who have completed at least 60 credit hours and who are studying in the areas of toxic chemicals or pollutants and their effects on human health and functioning. Please document eligibility. The Endowment has been established by the Association.

Vancouver Foundation Health Sciences Bursaries
Program code: GPBO-578
Value: 500
Awarded: Fall Spring

Term of reference: The bursary assistance program is limited to full-time students studying in Health Sciences. The funds are directed to students who have completed at least two years of post-secondary education and can demonstrate financial need. Areas of study include any of the following: Pre-Med program, Kinesiology, Biomedical Engineering, and Gerontology.

Vancouver Horticulture Society Bursary
Program code: gebo-590
Value: 750
Awarded: Fall Spring

Term of reference: This award is available to students of the Master of Pest Management program studying pest problems relating to horticulture. It is awarded to students who are in financial need and qualified in terms of character and scholarship.

University Administered Loans

Student Emergency Loan Fund

Regulations
The following regulations govern all loans for continuing students over which the University has jurisdiction.

• Short term emergency funds are available to students who urgently need money while awaiting other sources of funding.

• Emergency loans are interest free for 60 days.
• Students must have a demonstrated financial need and source of repayment.
• Undergraduate students must be registered in a minimum of nine credit hours of normal graded courses in the semester of application. Challenge, audit, and credit free courses will not be considered.
• Graduate students must be registered for residence credit in an approved full-time program.
• Students must apply on the SFU Emergency Loan application form and be interviewed by a Financial Assistance advisor. It is the student’s responsibility to supply all requested documentation. Incomplete applications may be rejected.
• SFU Emergency Loans are tenable only at Simon Fraser University and only for the semester indicated on the notice.

Work-Study Program

The SFU Work-Study program provides part time on-campus jobs for full time students. To participate in this program, students must have a minimum CGPA of 2.0, and be a registered full time student (minimum of 9.0 credit hours for undergraduate students, or credited as a full time graduate student). Funding is limited and selection is based on the student’s level of need. Apply to Financial Assistance approximately six weeks prior to the start of the semester. Application forms are available at Financial Assistance in MSC 3200 and on our website http://students.sfu.ca/a.

Government Administered Programs

Canadian Armed Forces Subsidization Plans

Admission Requirements
An applicant must be a Canadian citizen; be physically fit for enrolment in the Canadian Forces; and be at least 16 years of age on the first day of January of the year the student commences first year studies at university.

How to Apply
Individuals interested in obtaining more information on, or wishing to make application for, any of these plans are requested to contact: Commanding Officer, Canadian Forces Recruiting Centre, 757 West Hastings Street, Vancouver, BC, V6C 1A1.

Government Loans

A loan is a sum of money borrowed by a student who proves financial need on a promise to repay at some specified time.

Canada Student Loan/BC Student Assistance

The purpose of the Canada Student Loan/BC Student Assistance Program is to assist students whose resources are insufficient to provide the cost of full time studies at the post-secondary level of education. Therefore, funds under the program are granted only where the financial resources available to students from parents, summer or other employment, part time work, or other sources, are insufficient to meet their estimated educational costs. Normally, the funds provided under this program will be disbursed through a combination of the Canada Student Loan and BC Student Assistance.

In August 2004, the BC government established a new loan reduction program to help high-need students manage the costs of post-secondary education. The B.C. Loan Reduction Program will be delivered in cooperation with the Canada Millennium Scholarship Foundation’s (CMSF) Bursary Program.

The CMSF and the Province of British Columbia have agreed that CMS bursaries will be distributed as Loan Reduction Grants to eligible students effective the 2004/2005 program year. The Loan Reduction Grants will be paid at the end of the school year. For eligibility criteria and details on the program please see the Ministry of Advanced Education website at bcsap.bc.ca

Some students with dependent children may qualify for Canada Student Grant funding. A detailed booklet describing the program in full is available at Financial Assistance or www.bcsap.bc.ca.

Eligibility
Applicants must be Canadian citizens or permanent residents (landed immigrants) to be eligible. Assistance will be provided to eligible registered full time students taking a minimum of 60% or nine regular credit hours (40% or six for students with permanent disabilities) of a full program of study leading to a certificate, diploma or undergraduate degree, or registered full time (part time for students with permanent disabilities) graduate students. The amount of assistance awarded will be based on assessed need as determined by the provincial authority.

Loan Amounts

Enhancements to the Canada Student Loan Program (CSLP) for 2005/2006 will result in an increase in federal assistance levels. Weekly loan limits on the federal portion of a student’s loan will increase (from $162/week to $210/week). Single full time students will be eligible for a maximum of $5,440 in BCSAP each semester. The maximum for students with dependent children is $8,160. You can apply for BCSAP for either one semester or two semesters at once (e.g. fall only, spring only, fall and spring).

How to Apply
A student in need of a Canada Student Loan/BC Student Assistance must first apply on-line at www.bcsap.bc.ca. Alternately, paper application packages are available from any post-secondary institution or from Financial Assistance. The application must be completed carefully and accurately by the student, and where applicable, by the spouse or parent(s). If the student’s application is approved, the student will receive in the mail a notification of award from the Student Services Branch in Victoria.

After receiving the notification of award from the Student Services Branch in Victoria, the Canada Student Loan document will be mailed to the student from the Student Services Branch and the student will then take the loan document to a designated Canada Post outlet for submission to the National Student Loan Service Centre for negotiation.

If the student is also eligible for BC Student Assistance, the student will receive with their notice of assessment a B.C. Loan Agreement from the Student Services Branch in Victoria. The student will then take the loan agreement to a designated postal outlet for submission to the BC Student Loan Service Bureau for processing. Once the Service Bureau processes the loan agreement, the Student Services Branch in Victoria will request confirmation of student’s enrollment by the school and the funds for which the student is eligible will be electronically disbursed to the student’s personal bank account according to financial information provided on the B.C. Loan Agreement. Students are advised to keep in constant touch with the bank, or service providers from which they secure their loans.

Interest on the loan is paid by the federal or provincial government as long as the student is registered as a full time student and the appropriate agencies are aware of their full time status. Students should contact their lending institution (bank, credit union, service provider) for information regarding the current interest rate and repayment schedule for Student...
Loans. Students who have previously received Canada Student Loans or BC Student Loans, but who do not negotiate one for their immediate period of study, should submit a Schedule 2 and/or Certificate 2 to their lending institution in order to retain payment free status. Students must be undertaking a minimum of nine regular credit hours (six for students with permanent disabilities) in the current semester, be a registered full time (part time for students with permanent disabilities) graduate student, or enrolled in a co-op education work term to be considered eligible for payment free status. These forms may be obtained from Financial Assistance or the lending institution.

For appeals, reassessments or other concerns, please contact Financial Assistance.

Exceptions
Although the majority of programs at Simon Fraser University are eligible for government student loans, some programs do not meet BC Student Assistance Program eligibility criteria (e.g. Executive MBA, MEd Off-campus). Please contact Financial Assistance if you do not see your program listed on the BC SAP On-Line Program Information.

Canada Access Grant – Students from Low Income Families
The Canada Access Grant – Students from Low Income Families is a non-repayable grant for first-time, first-year students entering Post-Secondary Education. It is designed to provide an incentive to students from low-income families to participate in Post-Secondary Education by reducing financial barriers and by offsetting debt (the grant replaces federal student loan with grant).

Government Part-time Grants/Loans
If you are a part time student with demonstrated financial need, you may qualify for a federal study grant of up to $1,200 (Canada Study Grant for High Need Part-Time Students). Grants are targeted to students with dependents and possibly other students with special circumstances who are not able to take full time studies.

Federal student loans up to $4,000 are also available to part time students with financial need. These loans supplement other financial resources such as earnings, scholarships and bursaries.

Part time students who are Canadian citizens or landed immigrants and who are not in default of previous federal student loans or grants may apply for both the grant and loan programs.

Applications and information are available from www.bcsap.bc.ca. The deadline for applications is nine weeks before the end of each semester.

Grants for Students with Permanent Disabilities
Federal grant programs are available to students with permanent disabilities. The Canada Study Grant for the Accommodation of Students with Permanent Disabilities is designed to offset exceptional education-related costs incurred for services and equipment, such as note-takers, interpreters, and technical aids. Up to $8,000 per program year is available. Check with the Centre for Students with Disabilities in MBC 1250, or call 604.291.3112.

The Canada Access Grant – Students with a Permanent Disability (CAG-PD) is intended to provide up to $2,000 in grant to students with a documented permanent disability. This grant replaces the Canada Study Grant for High Need Students with Permanent Disabilities (CSG-HNPD). The CAG-PD is intended to assist in covering the costs of accommodation, tuition, books, and other education-related expenses, for up to $2,000 per year.

For eligible students, the $2,000 will be applied before any other funds to reduce the unmet need for full-time students. For part-time students, the grant will be awarded before part-time loans. Contact Financial Assistance in MBC 3200 or call 604.291.4356 for further information.

Grants for Female Doctoral Students
A federal grant program is available to female doctoral students in specific doctoral programs. Please call 604.291.4356 for further information, or see www.bcsap.bc.ca

The Loan Remission Program
If you have a BC Student Loan negotiated prior to August 1, 2000 (Guaranteed or Risk Sharing), the Loan Remission Program may assist in the reduction of your BC Student Loan debt.

If you have a BC Student Loan negotiated after August 1, 2000 (Direct Lend), this loan may be included when calculating your total debt, but will not be eligible for loan remission.

You will not be eligible for consideration under the Loan Remission Program if you have Direct Lend BC Student Loans on the remission application and eligibility on the Loan Remission Program, contact: Loan Remission and Management Unit, Student Services Branch, Ministry of Advanced Education or visit the Student Services Branch website at www.bcsap.bc.ca (debt management tools).

Ministry of Advanced Education
Mailing address: PO Box 9173, Victoria, BC, V8W 9H7.

In Victoria call 250.387.6100; in the Lower Mainland call 604.660.2610; in North America call toll-free 1.800.561.1818; TTY 250.952.6832; Fax 250.356.9455 or toll-free fax in North America 1.888.262.2112; www.aved.gov.bc.ca/studentservices/

Study in BC for Students from other Provinces

Out-of-province student loans
Students must apply to their province of residence for Canada and Provincial/Territorial funding. Application forms are available from Financial Assistance, MBC 3200. On-line applications are available for most provinces. Check the Financial Assistance website at http://students.sfu.ca/af for links to each of the provincial/territorial ministries.

International Students
United States Students
Citizens (or eligible non-citizens) of the United States attending the university may apply for funding through the US Department of Education Student Financial Assistance Program. A Free Application for Federal Student Aid (FAFSA) must be completed by the student and submitted to the Federal Student Aid Programs. SFU's school code is 00844. A Student Aid Report (SAR) is then issued to the student. SFU does not receive the SAR electronically because we are a foreign school. If you do not receive the original eight page SAR, you will need to contact FAFSA to request one.

To apply for Stafford Loans, the student must submit the signed SAR to Financial Assistance, with a master promissory note and school certification form, obtained from a state guarantee agency. New, first time borrowers must also complete an entrance interview at www.mapping-your-future.com.

Financial Assistance calculates the student’s costs, completes the school certification form, and then forwards the application to the appropriate agency for processing.

For more information regarding financial aid from the US Department of Education, call: 1.800.4.FED.AID (1.800.433.3243), or http://studentaid.ed.gov

Students with permanent resident status may be eligible to apply for Canada Student Loans. See section International Students.

Students from other countries
Students who are not Canadian citizens or Permanent Residents, and who will require financial assistance to attend Simon Fraser University must arrange such assistance in their country of origin before arrival in Canada.

Simon Fraser University permits non-Canadian students to compete for scholarships once they have enrolled at the University on the basis of course work undertaken at Simon Fraser University. Bursaries are awarded on the basis of financial need, but only as supplemental funding, not as core funding needed to meet immigration requirements. It must be stressed that non-Canadian students should not predicate their tuition and living expenses estimates upon these sources. Non-Canadian students are normally not permitted to work in Canada. Such students are expected and required by federal law to have sufficient funds guaranteed for their education prior to arrival in Canada.

For More Information
For further information on programs offered by Financial Assistance (Office of the Registrar) come to MBC 3200 or call 604.291.4356. You may also e-mail us at fassist@sfu.ca
Individual Special Arrangements  
(See “1.3.5 Admission Under Special Arrangements” on page 246.)

Individual students may apply by December 1st to the dean of graduate studies for admission to an individual special arrangements program. Applicants should request an application package from the graduate studies office at least three months prior to the deadline.

In addition to regularly scheduled courses in established graduate programs, the following courses are open to special arrangements students.

SAR 891-3 Special Topics  
To be selected by the student and supervisory committee.

SAR 892-3 Special Topics  
To be selected by the student and supervisory committee.

SAR 893-4 Special Topics  
To be selected by the student and supervisory committee.

SAR 894-5 Special Topics  
To be selected by the student and supervisory committee.

SAR 895-3 Special Topics  
To be selected by the student and the supervisory committee.

SAR 896-6 Special Topics  
To be selected by the student and the supervisory committee.

SAR 897-5 Special Topics  
To be selected by the student and the supervisory committee.

SAR 898-6 Master’s Thesis  
SAR 899-6 PhD Thesis

Cohort Special Arrangements  
(See “1.3.5.a Cohort Special Arrangements” on page 246.)

These programs are designed to meet the needs of specific groups of students pursuing a master’s degree in a field that is not covered in existing programs. Programs are advertised when available.

Certificate Programs  
(See “1.3.13 Certificate Programs” on page 246.)

Graduate certificate programs are combinations of courses taken while a student is pursuing a master’s or doctoral degree program. Certificate programs are listed below.

Graduate Certificate in Development Studies  
Development Studies is the study of social transformation or change, particularly those changes that affect the quality of life of individuals and groups. The problems of social transformation are urgent and complex, and often they transcend the boundaries of conventional academic disciplines. Development Studies examines the problems in, processes involved, and the prospects for the transformation of human, natural, and material resources in various contexts and at various levels of social interaction, from the local, national, and regional to the international/global level.

To study development as social transformation, one must draw upon many disciplines in order to obtain a balanced understanding of historical and contemporary processes. These disciplines include, but are not limited to: anthropology, business, communication, economics, education, geography, history, law, political science, psychology, resource and environmental management, and sociology.

This graduate certificate in development studies links faculty teaching and research across nine units in the university, and enables students to coordinate their graduate studies so as to concentrate on development issues, using a multidisciplinary approach. Students move through their programs in their departments while also being in regular contact with those with common interests in development across the university.

Program Requirements
- Students will be admitted to the university and graduate from their home units according to departmental, school and faculty regulations.
- Students enrolled in listed certificate courses are expected to meet all course requirements. Students will be advised of the scheduling of courses (listed in the certificate) early so as to enable them to plan their programs in consultation with their supervisory committees.
- The list of courses to be taught in the next semesters will be published well in advance.

Admission Requirements
On being granted regular admission to a graduate program in any department, school, or faculty in the University (including Special Arrangements), students will be informed about the Certificate by the steering committee. Though working on projects, theses, and essays is not a requirement of the certificate, students who elect to complete projects, theses, essays in the unit of admission (known as the home department) in a development-related subject will be encouraged to participate.

Continuation Requirements
Maintaining satisfactory progress as a graduate student in the University. Students will be informed of the Certificate by the steering committee.

Graduation Requirements
Students will complete four courses selected from the list of courses approved by the steering committee of the program, including a Core Seminar course on development. Students seeking the certificate must take listed courses from at least two different departments or schools (or non-departmentalized faculties). Any student can complete the certificate with the right combination of courses, including the Core Seminar. Students are advised to take the Core Seminar course in the first half of their graduate studies.

Required Courses
The Core Seminar course is currently CMNS 857-5.

A list of courses eligible for inclusion in the Certificate will be published annually.

Simon Fraser University  2005 • 2006
Faculty of Applied Sciences

Simon Fraser University 2005 • 2006

Dean
B.S. Lewis BA (Hamilton), MA, PhD (Iowa)
Associate Deans
W.S. Parkhouse BPE (Alta), MPE, PhD (Br Col)
J.D. Jones BSc (Sus), PhD (Reading), PEng
Director, Diversity and Recruitment
H. Matsu MSc (LSE)

Graduate Diploma Offered
Graduate Diploma in Quantitative Methods in Fisheries Management

Graduate Degrees Offered
Master of Applied Science
Master of Applied Science (Information Technology)
Master of Applied Science (Interactive Arts)
Master of Arts
Master of Engineering
Master of Resource Management
Master of Resource Management (Planning)
Master of Science
Doctor of Philosophy

General Regulations
For admission requirements, registration, residence requirements and time limit for completion of degrees, see “Graduate General Regulations” on page 245.

School of Communication
6141 Robert C. Brown Hall, 604.291.3595 Tel, 604.291.4024 Fax, www.sfu.ca/communication
New address effective December 2005
K9671 Shrum Science Centre, 604.291.3595 Tel, 604.291.4024 Fax, www.sfu.ca/communication
Director
M. Laba BA (York, Can), MA, PhD (Nfld)
Graduate Program Chair
R.S. Gruenew BA (Guelph), MA, PhD (Nfld)

Faculty and Areas of Research
For a complete list of faculty, see “School of Communication” on page 124.

P.S. Anderson – telecommunication and broadcasting policy; communication technology; communication to mitigate disasters/emergency communications
R.S. Anderson – international development; communication in conflict and intervention; community economic development
E. Balka – politics, design, implementation and use of health information technologies; women and information technologies; technology assessment; participatory design of technology; information technology and work; technology and social movements; technology and occupational health
A.C.M. Beale – communication theory and technology issues; film and video; cultural policy; feminist analyses
Z. Druck – documentary film; film history and theory; technology and popular culture; narrative, semiotic and aesthetic theory; critical social and cultural theory
A.L. Feenberg – critical theory of technology; technology studies; Marcuse and the Frankfurt School; Heidegger; online community; online education; software development for online discussion forums
R.S. Gruenew – popular culture and media; communications and cultural theory
S. Gunster – advertising and consumer culture; critical cultural theory; especially Walter Benjamin and the Frankfurt School; contemporary social and political theory; cultural studies; politics and ideology; culture, commodification and everyday life; cultural politics of investment and the new economy; utopian themes in media and popular culture
D. Gutstein – Internet, information policy; online news; communication and information technology; public access; news media analysis; health in the media; propaganda studies
R.A. Hackett – political communication; journalism and media studies; news and ideologies; media and social movements
L.M. Harasim – computer mediated communication and collaboration; telelearning and telework; social network design and evaluation
P.M. Howard – communication in the computerized workplace; technology transfer; knowledge systems in development; risk communication with a focus on biotechnologies
S. Kline – advertising; children’s media and culture; audience research; public communication campaigns; non-broadcast video designs and uses
B. Laba – media analysis; popular culture; social issues communication; social advertising
M. Lipsett – management of research and collaboration; cultural policy and cultural politics
D.C. Murphy – media production: documentary and advocacy video production; sound design; video post-production processes (motion graphics, composting, keying and aesthetic design); media production as a pedagogical process; social implications of media. Educational design: interactive pedagogical media, web-based interfaces; media production facility design
C.A. Murray – strategic marketing, policy and regulation in telecommunications and broadcasting; political communication and opinion research; social marketing
R. Onufrijchuk – communication design for media: history and current principles, practices, theories and criticism; organizational communication; communication technologies, play, imagination and the human predicament
W.D. Richards – communication network theory and methods, dynamic system simulation methods; social and organizational network research
R.K. Smith – management of technological change
B.D. Truax – acoustic and electroacoustic communication; audio aspects of media and advertising; electroacoustic and computer music
Y. Zhao – political economy of international communication; relationship between communication, development and democracy in transitional societies; media and information industries in China

Adjunct Professors
S. Brahm – telematics; networking computing; disaster management and emergency communications; telelearning; telehealth; teleworking
J.A.D. Holbrook – science policy, science and technology, innovation analysis
R.W. Howard – communication in development; communication in conflict; documentary video production
M. Lipsett – management of research and development in computer optics and aerospace industries

Communication is a comparatively new discipline that builds on traditional social science disciplines. It focuses on analysis of the context and means in which information in its diverse forms is created, packaged, circulated, interpreted, and controlled. As an applied science, communication is important in the creation and critical evaluation of legal and public policies in broadcasting, telecommunications, and community and international development. The study of communication has also become prominent in the professions, notably in law, education, community medicine, counselling, and mental health, and in business administration, advertising, and broadcasting.

The school draws on a variety of perspectives, but it is most readily distinguished by the fact that it treats communication as a humanistic social science with both theoretical and applied dimensions. Students are given opportunities to explore communication theory and practice and are encouraged to apply research and theory to issues and problems in contemporary societies and cultures.

The school offers graduate programs leading to an MA degree or PhD degree.

Fields of Study and Research
Faculty resources provide for graduate studies in the following general areas of interest. Students may wish to specialize in one or more of these general areas, or to select related aspects from two or more.

• theoretical foundations in communication studies
• communication in history
• broadcasting and telecommunication regulation, policy and practice
• communication, development and environment
• the information society/economy
• computer mediated networks and virtual environments
• publishing
• international communication, inter-cultural communication
• science and technology policy, technology-transfer, communication of science
• media and cultural studies
• cultural policy and cultural politics
• acoustic environments and communication
• management of technology
• telework, telelearning, distance education
• political communication
• communication in conflict and intervention
• crisis/emergency communication

Research and Training Facilities
Assessment of Technology in Context Design Laboratory
Graduate Resource Centre
Interactive Media Lab (network and multimedia studies)
Media Analysis Laboratory
Sonic Research Studio and Soundscape Archives
Telematics Laboratory
MA Program

Admission
Admission requires a bachelor’s degree in communication (with at least a good second-class standing) or an equivalent degree in an interdisciplinary or humanities program, in one of the social sciences, or in socially oriented information systems, or biological sciences. However, qualified students will be accepted only if the communication graduate studies committee finds a suitable senior supervisor. Besides applications from communication students, the school encourages applications from those with experience in humanities, social or biological sciences, and interdisciplinary studies. All applications should be directed to the graduate studies committee and, in addition to general university requirements, should include the following:

• an application form along with the application fee.
• a 3-5 page succinct statement of interests and goals, together with an account of relevant academic and personal background.
• two samples of scholarly and/or other written work relevant to the applicant’s objectives and any tapes, films, etc. the applicant considers relevant.
• three references, at least two of whom should be familiar with the applicant’s academic work.

The application deadline is January 15. The committee announces decisions before the last week of April. Students enter the program in fall semester. The school recognizes the special needs of working individuals who wish to upgrade their qualifications. The graduate program in communication has been approved for part time students; however, University regulations require all MA students to complete their studies within 12 full time equivalent semesters or six years, whichever is shorter.

As a condition of entry into the program, students with undergraduate degrees in disciplines other than communication may be required to take up to two additional courses to complete their MA. These conditions, if applicable, will be specified in the letter of offer as determined by the admissions committee on an individual basis.

Advising and Supervision
Each new student is assigned an interim advisor upon program admission. The student selects a senior supervisor and in consultation with this faculty member selects one or two other faculty to serve on a supervisory committee by the beginning of the student’s third semester. Although the graduate studies committee (GSC) will endeavor to provide interim advisors with expertise in the student’s stated area of research interest, there is no obligation to select the interim advisor as senior supervisor.

Degree Requirements
The program may be completed through extended essay, or project or thesis. Each is equivalent. Each requires the completion of the same number of courses, is research based and is subject to external examination. Students determine which option is suitable for their research in consultation with their senior supervisor and supervisory committee.

The thesis represents a longer form of research and is normally between 80 to 100 pages, inclusive of all bibliographies and appendices.

The extended essays require completion of two essays of not more than 40 pages, which may be on related fields, but which may not substantively duplicate papers presented in course work.

The project does not involve a printed work but the student may present an alternative format such as a CD-ROM, website, video or audio documentary.

Co-operative Master’s Option
In the fall of 1998, the School of Communication introduced a co-operative education option on a trial basis for master’s students. This program combines professional work experience with academic studies. After the first two semesters of the program, students may alternate work and academic terms. All work positions are in paid study related jobs and may lead to the communications project or extended essay in lieu of a master’s thesis. Application for the co-op program is made through the school’s co-op co-ordinator and the Co-operative Education office.

PhD Program
The school will offer PhD students the opportunity to choose from the fields of study and research listed above under Faculty and Areas of Research and Fields of Study and Research.

Admission
Admission requirements for this program will normally include a master’s degree or an exceptional record of undergraduate and/or graduate work in a relevant area of study. Enrolment is strictly limited by the school.

For general university admission requirements, see “Graduate General Regulations” on page 245. In addition to satisfying general requirements, applicants are asked to provide

• an application form along with the application fee.
• a 2-3 page succinct account of their past academic experience, scholarly work, and research accomplishments or in progress.
• an account of the applicant’s relevant previous experience including teaching and degree of responsibility for course content
• samples of scholarly writing, research reports, or other material
• references from three persons (at least two of whom should be familiar with the applicant’s academic work)
• a brief outline of the applicant’s research objectives, with representative bibliographical references and other source material, where applicable

Students will normally enter the program in the fall semester. The annual deadline for applications is January 15. The committee will announce its decisions to applicants before the last week of April.

Degree Requirements
All doctoral candidates complete course work, take a comprehensive exam, and submit a dissertation which demonstrates an ability to make an original contribution to the communication field. Candidates normally satisfy the following requirements.

Course Work
Students must complete course work consisting of a minimum of nine graduate level courses for those entering with a bachelor’s degree (including CMNS 860) or five graduate courses for those who have completed a master’s degree. The graduate studies committee may require additional courses depending on the student’s background and dissertation project. These courses are normally completed before taking the comprehensive examinations, or beginning a dissertation, and will include the following:

• two courses from group 1
• one course from group 2
• additional courses, at least one of which is selected from within the school. No more than one may be taken with the same supervisor, except by permission of the graduate studies committee.

Group 1 Courses: Surveys of History and Theory
CMNS 800, 802, 804

Group 2 Courses: Research Design and Methods
CMNS 801, 805

Group 3 Courses: Research Area Courses
CMNS 815, 830, 840, 845, 855, 856, 875, 858, 859

Group 4 Courses: Research Internship and Fieldwork
CMNS 881, 882

Group 5 Courses: Directed Readings and Studies
CMNS 850, 851, 880

Group 6 Courses: Colloquia, Theses and Comprehensive
CMNS 860, 895, 898, 899

CMNS 881, 882

CMNS 850, 851, 880

CMNS 860, 895, 898, 899

Co-operative Master’s Option
In the fall of 1998, the School of Communication introduced a co-operative education option on a trial basis for master’s students. This program combines professional work experience with academic studies. After the first two semesters of the program, students may alternate work and academic terms. All work positions are in paid study related jobs and may lead to the communications project or extended essay in lieu of a master’s thesis. Application for the co-op program is made through the school’s co-op co-ordinator and the Co-operative Education office.

PhD Program
The school will offer PhD students the opportunity to choose from the fields of study and research listed above under Faculty and Areas of Research and Fields of Study and Research.

Admission
Admission requirements for this program will normally include a master’s degree or an exceptional record of undergraduate and/or graduate work in a relevant area of study. Enrolment is strictly limited by the school.

For general university admission requirements, see “Graduate General Regulations” on page 245. In addition to satisfying general requirements, applicants are asked to provide

• an application form along with the application fee.
• a 2-3 page succinct account of their past academic experience, scholarly work, and research accomplishments or in progress.
• an account of the applicant’s relevant previous experience including teaching and degree of responsibility for course content
• samples of scholarly writing, research reports, or other material
• references from three persons (at least two of whom should be familiar with the applicant’s academic work)
• a brief outline of the applicant’s research objectives, with representative bibliographical references and other source material, where applicable

Students will normally enter the program in the fall semester. The annual deadline for applications is January 15. The committee will announce its decisions to applicants before the last week of April.

Degree Requirements
All doctoral candidates complete course work, take a comprehensive exam, and submit a dissertation which demonstrates an ability to make an original contribution to the communication field. Candidates normally satisfy the following requirements.

Course Work
Students must complete course work consisting of a minimum of nine graduate level courses for those entering with a bachelor’s degree (including CMNS 860) or five graduate courses for those who have completed a master’s degree. The graduate studies committee may require additional courses depending on the student’s background and dissertation project. These courses are normally completed before taking the comprehensive examinations, or beginning a dissertation, and will include the following:

• two courses from group 1
• one course from group 2
• a minimum of two additional credit courses for students entering with a master’s degree, at least one of which is to be selected from within the school and may include other courses from groups 1 and 2. A minimum of five additional courses will be required of PhD program students who have not first obtained a master’s degree. CMNS 860, the graduate colloquium, is required for students entering with a bachelor’s degree and may be included as one of the six required courses. A minimum of four of these courses must be taken from course offerings within the school. For all students, a maximum of two courses may be taken from groups 4 and 5. No more than two of group 4 or 5 courses may be taken with the same supervisor, except with graduate studies committee permission.
• students will be required by the communication graduate studies committee to demonstrate
adequate command of any language essential to the completion of their dissertations

Group 1 Courses: Surveys of History and Theory
CMNS 800, 802, 804

Group 2 Courses: Research Design and Methods
CMNS 891, 895

Group 3 Courses: Research Area Courses
CMNS 815, 830, 840, 845, 855, 856, 857, 858, 859

Group 4 Courses: Research Internship and Fieldwork
CMNS 881, 882

Group 5 Courses: Directed Readings and Studies
CMNS 850, 851, 880

Group 6 Courses: Colloquia, Theses and Comprehensives
CMNS 860, 895, 898, 899

The Comprehensive Examination
In consultation with their supervisory committee, students must apply to take the comprehensive examination following completion of required course work and normally no later than the sixth semester. Upon passing, the student will be admitted to full degree candidacy. The examination may be retaken once.

To prepare for the comprehensive exam, students are required to select and design two comprehensive fields. Fields may be related to the dissertation topic itself or carve out an area of potential teaching competence. At least one examination shall survey a range of theoretical or methodological frameworks within the study of communication to meet a breadth requirement.

The student shall submit definition papers, including bibliography, on each of the fields in preparation for both a written and oral examination.

Dissertation Proposal
Students will register in CMNS 899 in the semester immediately following completion of the comprehensives and present a full dissertation proposal to their supervisory committee. Specific guidelines for the comprehensive examinations and dissertation proposal are available from the school's graduate program co-ordinator.

An Original Dissertation
PhD students complete a doctoral dissertation that demonstrates an ability to make an original contribution to the field of communication.

Advising and Supervision
Students are advised to read section 6 of the General Regulations and the school’s Guidelines for Supervisory Committees.

Each new student is assigned an interim advisor upon program admission. The student is expected to select a senior supervisor and, in consultation with this faculty member, to select two or three other faculty to serve on a supervisory committee by the beginning of the student's third semester. Although the graduate studies committee will endeavor to select interim advisors with expertise in the student's stated area of research interest, there is no obligation to choose the interim advisor to be senior supervisor.

Students have the right to discuss their programs and status with communication graduate studies at any stage, to ask for a review of any recommendation or grade, and to appeal any committee, supervisor or faculty decision.

School of Computing Science


Director
J.P. Delgrande BSc, MSc, PhD (Tor)

Graduate Program Director
P. Heil BSc (Prague), MSc (McM), PhD (Montr)

Faculty and Areas of Research
For a complete list of faculty, see “School of Computing Science” on page 126.

M.S. Atkins – medical image display and analysis, medical image denoising, human-computer interfaces for medical imaging, computer vision, eye gaze models, virtual reality systems

B.K. Bhattacharyya – computational geometry, robust geometric computation, resource allocation optimization

A. Buiaut – constraint problems, computational complexity, combinatorics, clone theory and universal algebra

F.W. Burton – functional programming, parallel computing

T.W. Calvert – information processing in man and machines, biomedical applications, graphics

R.D. Cameron – internet protocols, programming languages and systems, software engineering

J.P. Delgrande – knowledge representation, nonmonotonic reasoning, belief revision, reasoning with preferences, logic in computer science, reasoning about logic

M.S. Drew – multimedia, computer vision, computer graphics, color

A.F. Ergun – quality of service in high speed networks, combinatorial property testing, sublinear algorithms, randomized algorithms

M. Ester – database systems, data mining, text mining, bioinformatics

B.V. Funt – colour imaging, computer vision

U. Glässer – software systems engineering: mathematical foundations, requirements specification and validation, formal semantics, system design languages, concurrent and reactive systems

G. Hamarneh – computer vision, multimedia communications, peer-to-peer computer systems

A. Gupta – constructive combinatorics, parallel complexity theory, bioinformatics

R.F. Hadley – computational approaches to cognitive science, connectionist models of mental processes, cognitive architecture

L.J. Hafer – constrained optimization, mixed-integer linear programming, scheduling

G. Hamarneh – medical image analysis; geometry, physics and statistics based shape modeling, web-based medical image computing

R. Harrop – medical applications, automata theory, logic

W.S. Havens – artificial intelligence, constraint programming, intelligent systems

M. Heenstra – computer networks and distributed systems, multimedia communications, peer-to-peer computer systems

P. Heil – computational combinatorics, algorithmic graph theory

V. Kabatians – computational complexity, randomness in computation, pseudorandomness and derandomization

T. Kameda – distributed computing, computational geometry, polygon search problems, video-on-demand

A. Kirkpatrick – haptic interfaces, interaction techniques, human-computer interaction

R. Krishnamurti – approximation algorithms, combinatorial optimization

Z.N. Li – computer vision, multimedia, pattern recognition, image processing, artificial intelligence

A.L. Liestman – analysis of algorithms, graph theory, network communications

J.C. Liu – internet architecture and protocols, multimedia (video) communications, wireless networks, mobile ad hoc networks, overlay networks and peer-to-peer communications

W.S. Luk – database systems, distributed processing

D. Mitchell – constraint satisfaction and satisfiability testing, computational logic, propositional proof complexity

T. Möller – computer graphics, scientific visualization, signal processing, approximation theory

G. Mori – computer vision, object recognition, pose estimation, activity recognition, machine learning

J. Pei – data mining and knowledge discovery, online analytical processing and data warehousing, database systems, bioinformatics and biometrics

J.G. Peters – networks and communication, mathematical modeling, graph theory

F. Popovich – artificial intelligence, computational linguistics, natural language understanding/processing

S.C. Sahinalp – algorithms: pattern matching, sequence embeddings, data structures; computational genomics: genome analysis, comparative genomics, functional evolution of the human genome

A. Sarkar – artificial intelligence, computational number theory, computational linguistics, natural language understanding/processing

T. Smith – physics-based sound synthesis and digital audio signal processing for music applications

T.D. Sterling – statistics and data processing applications, social applications, systems design

E. Ternovska – computational logic, complexity of reasoning, formal verification, semantics of logic programming

R.T. Vaughan – autonomous systems, robotics, artificial intelligence, adaptive and distributed systems

K. Wang – database, data mining, data mining in bioinformatics

J.J. Weinikam – computational epidemiology, programming languages

K. Wiebe – bioinformatics, evolutionary computation and bioinformatics, intelligent systems and optimization

H. Zhang – 3D computer graphics, digital geometry processing, geometric mode

Associate Members
For areas of research, refer to the department listed.

J. Borwein, Mathematics
P. Borwein, Mathematics
J.C. Dill, Engineering Science
M. Monagan, Mathematics
J. Pelletier, Cognitive Science
R.D. Russell, Mathematics
L. Trujjillo, Engineering Science
M.R. Trummer, Mathematics

*emeritus

Research Facilities
The school operates several interconnected local area networks in co-operation with other Faculty of Applied Sciences departments. These networks are
connected to SFU LAN, the campus-wide network, which also provides access to the Internet.

Facilities include over 300 networked workstations, file servers, CPU servers, and other specialized systems. The workstations are mostly SUN UltraSparc and PC, with some Silicon Graphics and Macintosh workstations. Additionally, the school has comprehensive resources to facilitate VLSI design, simulation, fabrication and testing.

Other computing resources are provided by Academic Computing Services including six large SGI 4D multi-processor systems, four Sun SPARC-II computers, an IBM RS6000, and an Auspex file server. These systems and a range of software and services are available to the campus community.

**Degrees Offered**

The school offers programs leading to the MSc and PhD in computing science. It provides graduate studies in the following areas: theoretical computing science; artificial intelligence; database systems; computer graphics and multimedia computing; hardware design and distributed computing; programming languages and systems; computer vision and medical imaging.

**Admission**

To qualify for MSc program admission, a student must satisfy the University admission requirements stated in section 1.3 of the Graduate General Regulations and must have a bachelor's degree or the equivalent in computing science or a related field.

To qualify for admission to the PhD program, a student must satisfy the University admission requirements stated in Graduate General Regulations 1.3 (page 245) and have a master's degree or the equivalent in computing science or a related field or have a bachelor's degree or the equivalent in computing science or a related field, with a cumulative grade point average of 3.5 (on a scale of 0.0–4.0) or the equivalent.

At its discretion, the school’s graduate admission committee may offer either MSc or PhD admission to students applying to the PhD program without a master's degree or equivalent in computing science or a related field. Students enrolled in the MSc program may apply to transfer to the PhD program after two semesters in the MSc program; the school’s evaluation procedure for such applications is the same as that used for outside applicants.

**Breadth and Course Requirements**

For purposes of defining the MSc and PhD breadth requirements, a set of sub areas are identified and grouped into three major areas: formal topics in computing science, computer systems, and knowledge and information systems. Table 1 shows the standard sub areas within each area.

<table>
<thead>
<tr>
<th>Area I – Formal Topics in Computer Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>algorithms and complexity</td>
</tr>
<tr>
<td>formal logic and language semantics</td>
</tr>
<tr>
<td>discrete mathematics</td>
</tr>
<tr>
<td>operations research</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area II – Computing Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>operating systems and networks</td>
</tr>
<tr>
<td>computer design and organization programming languages and compilers software methodology and engineering</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area III – Knowledge and Information Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>artificial intelligence and robotics database and information retrieval systems</td>
</tr>
</tbody>
</table>

numeral and symbolic computing computer graphics and interfaces

The course requirements for the MSc and PhD degrees each have a distribution requirement to ensure breadth across the major areas defined in Table 1. This requirement specifies the number of courses and at least four from each of the three major areas. At its discretion, the graduate breadth evaluation committee may accept requests to define sub-areas other than those in Table 1 to satisfy MSc or PhD breadth requirements.

**Supervisory Committees**

A supervisory committee, at either the MSc or PhD level, consists of the student's senior supervisor, at least one other computing science faculty member, and others (typically faculty) as appropriate. The choice of senior supervisor should be made by mutual consent of the graduate student and faculty member based on commonality of research interests. The student and senior supervisor should consult on the remainder of the committee members.

Graduate General Regulations 1.6 specifies that a senior supervisor be appointed normally no later than the beginning of the student’s third semester in the program, and that the remainder of the supervisory committee be chosen normally in the same semester in which the senior supervisor is appointed.

**Research Topics Seminars**

The research topics seminar series is presented over the course of the year by faculty and graduate students. Faculty presentations acquaint new graduate students with the research interests of the faculty. Graduate student presentations typically showcase thesis research. Students in the first year of graduate study are required to attend faculty research topics seminars to become familiar with the research interests of the faculty.

**MSc Program**

Students are expected to acquire breadth of knowledge through a sequence of courses and depth of knowledge through completion and defense of a thesis or a project. Under normal circumstances, an MSc program should be completed within six semesters and should not require longer than eight semesters. An MSc student must choose between thesis and project options by the end of the second semester. Any change in option thereafter must be approved by the graduate program committee.

**Breadth Requirement**

Thesis MSc students complete a total of 30 credit hours of graduate work (five courses and a thesis which is equivalent to 15 credit hours of work.)

Four of the five courses must be taken in computing science. At least one course must be chosen from each of the main Areas I, II and III from Table 1, and two courses must be at the 700 level. Project MSc students must complete 30 credit hours of graduate work (eight graduate courses, and a project which is equivalent to six credit hours of work).

At least six of the eight courses must be taken in the School of Computing Science. The courses must include at least one 700 level course in each of the Areas I, II and III from Table 1. Any 700 level course used to satisfy the MSc breadth requirement might be waived and replaced by an 800 level course. In such cases, the students must produce convincing evidence to the graduate program committee that they have taken a comparable course or have comparable training in industry.

**Depth Examination**

The depth seminar and examination may be scheduled at any time following the completion of any courses taken outside the School of Computing Science must be approved by the student’s senior supervisor and the graduate breadth committee.

**Depth Requirement**

Thesis MSc students are required to demonstrate depth of knowledge in their research area through a thesis seminar and defense based on their independent work. Students should consult with members of their supervisory committee, and formulate and submit a written thesis proposal for approval. This should not be done any later than the third semester.

Project MSc students must choose an area of specialization and submit a project report. Project topics may include a comprehensive survey of the literature of some computing science related research areas; implementation and evaluation of existing techniques/algorithms; development of interesting software/hardware applications.

Regulations specifying the examining committee’s composition and procedures for the final thesis or project exam appear in the Graduate General Regulations.

**PhD Program**

Students in the PhD program are required to demonstrate breadth of knowledge as outlined below and demonstrate the capacity to conduct original research through the completion and defence of an original thesis. Under normal circumstances a PhD degree should be completed within 12 semesters and should not require longer than 15 semesters.

**Breadth Requirement**

PhD students are required to demonstrate breadth to a level equivalent to at least 24 credit hours of graduate level courses (typically eight courses), beyond those for the bachelor’s degree, subject to the following distribution.

- at least four of the eight courses must be taken at Simon Fraser University
- courses must include three 700 level courses, such that one course is drawn from each of the Areas I, II and III of Table 1

A 700 level course used to satisfy the PhD breadth requirements might be waived and replaced by an 800 level course. In such cases, the students must produce convincing evidence to the graduate program committee that they have taken a comparable course or have comparable training in industry.

Up to two relevant courses outside of computing science may be used in satisfying the breadth requirement, subject to approval by the student’s supervisory committee and the graduate breadth committee. A PhD student must achieve a minimum CGPA of 3.4 and passing marks in all courses.

Students submit, within two months of program entry, a proposal to satisfy breadth requirements or may request that up to four courses and any portion of the breadth distribution be waived based on previous graduate work, or by examination. The graduate breadth committee may approve the proposal or recommend alternatives at its discretion.

**Depth Requirement**

PhD students demonstrate depth of knowledge in their research area through a public depth seminar and oral examination, give a thesis proposal seminar, and submit and defend a thesis based on their independent work which makes an original contribution to computing science.

**Depth Examination**

The depth seminar and examination may be scheduled at any time following the completion of Simon Fraser University 2005 - 2006
processing of materials, VLSI/wafer scale integration, computer aided engineering
V. Cuperman — signal processing, speech coding and recognition, multimedia information compression, digital communications, digital signal processing structures and hardware
J.C. Dill — computer graphics, computer aided design, user interfaces, intelligent design
D.A. George* — adaptive signal processing for communications and remote sensing systems
B.L. Gray — microfluidics, interconnect and microassembly, biomedical microdevices and instruments, high-aspect-ratio microfabrication techniques
W.A. Gruver — intelligent robotics, machine sensing and sensor-based control with applications to service robots, rehabilitation engineering, and manufacturing automation
K.K. Gupta — computer vision, robotics, interpretation of two- and three-dimensional scenes, motion planning, spatial reasoning
R.H.S. Hardy — wireless communication networks, protocols and performance, access control and management of multimedia networks, wide area wireless and ad hoc networks
P.K.M. Ho — mobile communications, modulation and detection techniques, joint source and channel coding techniques, integration of stream and packet mode CDMA traffic
R.F. Hobson — very large scale integrated design, computer design, interpreter design
J.D. Jones — applications of artificial intelligence to engineering design, design for manufacturing, finite element analysis, heat transfer and thermodynamics
B. Kaminska — wireless sensor networks, micro-medical devices, biosensors, wearable electronics; physiological, behavioral, and environmental monitoring; microelectronic design, test, and fault-tolerance; design and test automation algorithms
K. Karim — microelectronic circuit, device and process development for medical imaging applications and large area electronics; medical imaging using crystalline silicon CMOS technology, large area diagnostic X-ray imaging, X-ray detectors, and active pixel sensors for crystalline and amorphous silicon technology
D.J. Kim — spread-spectrum, cellular mobile communications, indoor wireless communications, wireless multimedia networks
J.B. Kuo* — compact modeling of CMOS, bipolar, and power semiconductor devices, and low-voltage digital circuit designs
D.C. Lee — computer and communications networks, wireless communications, multimedia transport
A.M. Leung — microelectronics, integrated circuit technology, micromachined physical sensors, optical lithography
J. Liang — image/video compression, image/video processing, filter bank, wavelets, multimedia communications, wireless communications
M. Parameswaran — silicon micromachining, integrated microelectronics and micromechanical sensors and actuators, commercial wireless integrated circuit process compatible sensors and actuators design, integrated circuit design, (application of micromachining for biomedicine and biotechnology) microelectronic processing, process and device simulation
S. Payande — robotics and control, modelling and control of grasping and manipulation, interpretation of contact forces and tactile images, kinematic geometry of mechanisms
A.H. Flawicz — biomedical transducers (sensors and actuators), optical engineering and biophotonics, vision sensors, reliability of biomedical devices
M. Saif — estimation and control theory, model based fault diagnosis, large scale systems, optimization, and application of the above to engineering systems

S.P. Stapleton — passive rf/microwave circuits, GaAs monolithic microwave integrated circuits, nonlinear rf microwave devices, active rf microwave circuits
M. Syrzyzki — microelectronics, semiconductor devices, digital and analog VLSI design, integrated circuit technology, integrated sensors, integrated circuit fabrication defects, yield and reliability of VLSI integrated circuits
L. Trajkovic — communication networks (performance analysis, simulation of protocols and scheduling algorithms, traffic collection, characterization, and modeling, intelligent control of communication systems); nonlinear circuits and systems (simulation tools, homotopy methods, theory of nonlinear circuits)
R.G. Vaughan — personal and mobile communications, compact antennas, diversity antennas, propagation, signal processing, DSP techniques wireless systems, microwave techniques, multiprotocol and MIMO systems

Associate Members
For areas of research, refer to the department listed.
• M.N. Bara, Kinesiology
• D. Donelan, Kinesiology
• R.F. Frindt, Physics
• J.A. Hoffer, Kinesiology
• B. Kuhl, Business Administration

Degrees Offered
The School of Engineering Science offers two distinct master’s degrees, Master of Engineering (MEng), or Master of Applied Science (MASc) and a Doctor of Philosophy (PhD) degree.

Previous Credit
If the subject matter of a listed course has been previously completed with graduate credit, the course may not be taken again for credit.

Master’s Program
The MEng program, for part time study by practising engineers, is based on a set of courses normally offered in the evenings, plus a project performed in industry. The principal areas of study for the MEng program are electronics; communications and signal processing; intelligent systems; and control theory. The MASc is a full time program with primary emphasis on the thesis, rather than course work, is more exploratory than the MEng, and covers a greater range of study.

Transfer from MEng Program to MASc Program
Normally transfer from MEng program to MASc program will be considered under the following conditions.
• Undergraduate GPA — Minimum undergraduate CGPA of 3.3 required.
• MEng GPA — On at least two courses, a minimum CGPA of 3.5.

Degree Requirements — MEng Program
Course Work
MEng candidates are required to complete a minimum of 21 graduate level credit hours. All students must take ENSC 820, specialize in an area

School of Engineering Science

Director
M. Saif BSEE, MSE. PhD (Cleveland), PEng

Graduate Program Chair
A.M. Leung BS, MS, PhD (Case W Reserve), PEng

Faculty and Areas of Research
For a complete list of faculty, see “School of Engineering Science” on page 131.

I.V. Bagic — signal processing, information theory and their applications in image and video compression, multimedia communications and networking, and computational biology
M.F. Beg — computational anatomy, tools for segmentation and shape analysis in medical images, high-performance computation methods in medical imaging
J.S. Bird — statistical signal processing, system performance analysis, underwater acoustics and optics, radar, sonar and communications applications
C.R. Bolognesi — fabrication and characterization of advanced compound semiconductor devices such as high electron mobility and heterojunction bipolar transistors, development of new materials and processes for high speed devices, optoelectronics, heterostructure fabrication and characterization; solid state phenomena
T.W. Calvert* — information processing in man and machines, biomedical applications, graphics
J.K. Cavers — mobile communications, signal processing, network protocols
G.H. Chapman — microelectronics (fabrication, defect avoidance techniques, device physics), laser
of study, and take the required course or courses(s) as follows. Students specializing in communications must take ENSC 805 and 810, electronics specialization must take one of ENSC 851, 852 or 853 and intelligent systems or control theory specialists must take ENSC 801. Elective courses from the list below normally make up the remainder of the 21 required hours. Additional courses may be required to correct deficiencies in the backgrounds.

In addition to course work, a student must complete a project, expected to take a minimum of two person months. In the event that the project is performed in the student's work place, the student will receive academic supervision from the senior supervisor, and day-to-day supervision from the student's manager, or designated associate. Industrial supervisors, who are on the supervisory committee, will be appointed by the graduate chair in consultation with the senior supervisor. In very small companies, alternate arrangements will be made for industrial supervision.

In addition to submission of a technical report at the project completion, the student makes an oral presentation to the supervisory committee and the graduate chair. A grade will be assigned based on the quality of the report, the presentation, and the student's understanding of the subject. A grade of 'complete' or 'in progress' will reflect the major decision. In the case of an 'in progress' grade, the student re-submits the project report and presents it again.

MEng Fees
Students registered in the MEng program may complete their program before paying the minimum total fee for a master's degree. In such cases, an additional payment is required prior to graduation to satisfy the minimum fee requirement of six full-time fee units. See "Graduate Fees" on page 252.

Degree Requirements – MASc Program
MASc candidates complete 30 credit hours consisting of a minimum of 12 credit hours, plus a thesis equal to 18 credit hours. In consultation with the senior supervisor, the courses will normally be selected from the list below, except that ENSC 820 may not be used towards the course requirement of the MASc degree. At least six hours of course work must be ENSC graduate courses. Additional courses may be required to correct deficiencies in the student's background. The thesis is based on an independent project with a significant research component. The student defends the thesis at an examination, in accordance with regulations.

Graduate Research Internship
With the approval of the supervisory committee, students admitted to the MASc or PhD programs may do research internship in industry. The responsibility for finding a suitable internship rests with the student, though the senior supervisor will provide guidance. In addition to satisfying the program's degree requirements, students who choose this option must satisfy the following conditions.

Proposal
The proposal must be approved by the supervisory committee and by the graduate committee. The proposal must include the following.

- justification for undertaking the work in industry
- agreement regarding intellectual property and publications
- funding arrangement

On-campus Presence
During the internship, the student must spend at least one day per week (or equivalent as approved by the graduate committee) on campus to meet with his/her supervisor and attend regular seminars. This is in addition to time spent on campus for course work.

Oral Presentations
A minimum of two oral presentations for the supervisory committee (not including the thesis defence) on the progress of the student's work will be given during the internship.

Duration
The duration of the internship will not exceed two semesters, in the case of a MASc student, or four semesters, in the case of a PhD student.

Failure to Comply
See "1.8 Progress, Withdrawal and Leave" on page 249.

PhD Program

Admission
To qualify for admission, a student must have a master's degree in electrical engineering, mechanical engineering, physics, computer science or a related field, have submitted evidence that he or she is capable of undertaking substantial original research in engineering science, and have identified a faculty member willing to act as senior supervisor.

See "Graduate General Regulations" on page 245 for other PhD program admission requirements.

Residence Requirement
Students will conform to the residence requirement as outlined in General Regulations 1.7.3 (page 248).

Transfer from the Master's Program to the PhD Program
Proceeding to a PhD program without completing a master's degree is discouraged. However, a student may be admitted after at least 12 months in the MASc program if all requirements have been completed with a 3.67 or better CGPA, outstanding potential for research has been shown, and approval of the student's supervisory committee, graduate program committee and senate graduate studies committee been given.

Degree Requirements
Course Work
The minimum requirement is 18 credit hours beyond that of the MASc degree. Six of these hours will be for prescribed courses in the option in which the student is enrolled; alternatives can be substituted with the approval of the student's supervisory committee. At most, six hours may be senior level undergraduate courses. At most, six credit hours may be directed studies. At least, six credit hours must be within engineering science, except that ENSC 820-3 may not be used towards the course requirement of the PhD degree. Additional courses may be required to correct deficiencies in the student's background.

Qualifying Examination
To qualify the student will submit a brief written research proposal and defend it orally to his/her supervisory committee within the first 14 months of admission. The proposal defence will be judged according to the feasibility and scientific merits of the proposed research, and demonstration of a sophisticated understanding of general material in the student's major area of research. This level of understanding is associated with senior undergraduate and first year graduate course material. The possible outcomes of the qualifying examination are "pass," "marginal" and "fail." (student with 'marginal' will be required to re-submit the research proposal and defend it for the second and final time within six months and/or to take more courses; 'failing' grade requires withdrawal).

Thesis
Students define and undertake original research, the results of which are reported in a thesis. An examining committee is formed as defined in 1.9.3 of the Graduate General Regulations (page 249).

Students conform to residence requirements as defined in 1.7.3 of the Graduate General Regulations (page 248). The senior supervisor will be an engineering science faculty member approved by the school's graduate program committee.

The student's progress will be reviewed every 12 months by a supervisory committee of three or more faculty members. At each annual review, the student presents a summary of his/her work to date, with the first review being the research proposal defence described in the section for Qualifying Examination (see above). Students not making satisfactory progress in their research topics, or failing to demonstrate satisfactory knowledge and understanding of recent publications in their general area of research, or failing to have their revised research proposal approved by the supervisory committee within 20 months of admission, may be required to withdraw as per section 1.8.2 of the Graduate General Regulations (page 248).

Research Seminar
PhD students present at least one research seminar per year as part of regularly organized departmental seminars, including some based on completed or nearly completed thesis work. Students are expected to attend all the research seminars of the school.

Directed Studies and Special Topics Courses
Directed studies (ENSC 891, 892) and special topics (ENSC 894, 895) courses may be offered by the following research groups, subject to student interest and demand.

Communications Group
estimation theory
ATM network performance evaluation
optical telecommunications networks
advanced modulation techniques
spread spectrum communications
information flow and decision theory
adaptive arrays
active and passive sonar systems
synthetic aperture radar

Microelectronic group
analog VLSI signal and information processing
applied solid state electronics
CMOS compatible micromachining
embedded VLSI systems
low power, low noise, high frequency circuits
optoelectronic devices
photonics and laser applications
reliability engineering
sensor – principles and applications
VLSI circuits for telecommunications

Intelligent Systems and Control Group
design optimization
algorithms for robotics
intelligent design
intelligent control of robotic systems
intelligent manufacturing systems
model-based fault diagnostics in control systems
multivariable control systems
nonlinear control systems
numerical modelling of heat transfer
robotic synthesis
School of Interactive Arts and Technology

Simon Fraser University Surrey, 2400 Central City, 10153 King George Highway, Surrey, BC V3T 2W1, 604.268.7500 Tel, 604.268.7488 Fax, www.sfu.ca/~siat/grad

Graduate Program Chair
R. Woodbury BarCh (Car), MS, PhD (Carnegie-Mellon)

Faculty and Areas of Research
For a complete list of faculty, see “School of Interactive Arts and Technology” on page 136.

Program Goals
The program has two goals. The first is to explore, understand and critically evaluate the interplay between technology and society in the broadest terms, and in particular, between technology and our social and cultural environments. The second is to foster the development and design of new technologies to benefit us in existing contexts and to elaborate, expand and create contexts for beneficial technological application.

The program brings together faculty and students from a variety of disciplines to the study of technology both in and across the participating disciplines. The program has the quadruple objectives of, first, research in technology in its contexts, particularly the computation that drives much current technological development; second, inquiry into and use of research methodologies that enable interdisciplinary collaboration and the development of new technologies; third, the impact of actors in systems of designing, making, managing and learning about technology; and fourth, demonstration of new technologies in their contexts.

A hallmark of the program is its emphasis on interdisciplinary team endeavour, combining of concept and practice, and use of technologies as a vital instructional base. All graduate students take a mandatory course in Research Methods and Strategies, which critically evaluates research philosophies and techniques for collaboration among disciplinary experts. Students learn in an environment that employs traditional coursework, one-on-one mentoring, teamwork, and technology-enhanced learning. In short, students are immersed in an environment that is both technology rich and structured for interdisciplinary cooperation.

Degrees Offered
The program offers courses of study leading to the MA, MSc and PhD. It provides graduate study in diverse areas related to people, technology and society, emphasizing many forms of art, design, games and knowledge management.

The following degrees have been phased out. They are available to students admitted in September 2003 or earlier.

• Master of Applied Science (Information Technology)
• Master of Applied Science (Interactive Arts)

Fields of Study, Research, and Research Facilities
SFU Surrey’s research faculty conduct research in a variety of areas including information networking and multimedia, technology-mediated learning, computer-based games, design science, electronic commerce, policy and knowledge management. Many of these interests are supported by significant government and industry grants. Awards from the Canadian Foundation for Innovation and the BC Knowledge Development Fund, combined with private donations, are funding the development of five research labs. Designed to facilitate SFU Surrey programs and research, the labs provide advanced research and development facilities for the University community and collaborators.

Specialized Research Facilities
The school operates five research labs, supporting work in the broad areas of information technology, virtual environments, interactivity and usability. One lab comprising computers, display and output devices is for general graduate program use. The other four labs provide specialized research facilities.

Shared Virtual Environment Lab
The particular focus of the lab is shared virtual environments where technology is used to provide sensory cues of physical presence. The lab supports research into shared spaces, developed to provide an immersive virtual reality environment in which users can interact with others in similar spaces in Canada and around the world. Its facilities include a two-walled cave, graphics servers, software and desktop computers.

InfoNet Media Lab
The InfoNet Media Lab houses a computer-based environment that allows for the creation, usage, and sharing of multi-modal information to support such areas as: signal Processing for multimedia applications, image and video processing, computer graphics and animation, multi-modal multimedia computing, interaction, multimedia, technology mediated learning, interactive authoring, human-computer interaction, bioinformatics. The goal of utilizing the InfoNet Media Lab is to define, investigate, and integrate advanced multimedia and creative technologies, in order to dramatically transform the way an individual communicates, works, teaches, learns, and plays. Its facilities include visualization displays, instrumentation and prototyping equipment, software, and desktop and laptop computers.

Interactivity Lab
The Interactivity Lab aims to extend our current range of digital interfaces and interactivity solutions. The research in the Interactivity Lab supports existing and in-development tools and solutions and develops new forms of interactivity and authoring tool methods, from small numeric-pad driven interfaces to full body, multi-sensory interaction. It facilities include a range of input, sensing and display and output devices, rapid prototyping equipment, servers, software, and desktop and laptop computers.

Electronic Commerce, Educational Technology and Community Informatics Usability Lab
The Electronic Commerce, Educational Technology and Community Informatics Usability Lab (EC3 Usability Lab) examines the areas where the virtual world interfaces with the physical world. It supports research in the human and user component of technology development. The lab develops and evaluates applications that merge the virtual and physical world and provide a platform for research in...
user interface, user response, and user requirements in areas such as electronic commerce, educational technology, computational design and community informatics. Its facilities include head and eye tracking equipment, usability evaluation hardware and software, collaboration systems, servers, terabyte storage arrays, software, and desktop and laptop computers.

GradLab
The GradLab has research, meeting and computer space dedicated to the graduate program including specialized media editing facilities. GradLab is adjacent to faculty offices to link graduate instruction to major research endeavors. It provides Windows, Mac and UNIX OS platforms, Institution-wide wireless networking allowing transparent connection of notebook computers.

SFU Libraries
Specialized reference services and specialist librarians for the graduate program are available. Numerous helpful Internet guides support research and thesis preparation. The University's library system has collections relevant to computer science, engineering science, contemporary arts, business, education, mathematics and the arts. During its brief existence, the former TechBC developed a small but significant on-site specialized research collection.

Regional Opportunities
Ties with high technology industry and other Simon Fraser University programs offer additional facilities and synergies for graduate level research.

Admission Requirements
There will be annual admission into the program with the possibility of early or out-of-cycle admissions in special cases.

The minimum standards will be those of Simon Fraser University, as described in the Graduate General Regulations (page 245), augmented by the following specific requirements.

It is our aim to admit groups of students with diverse backgrounds, across the broad areas in which our faculty have disciplinary expertise. The following admission requirements are designed to encourage such diversity while setting minimum standards for acceptance into the program.

Master’s students will be admitted to study for either the MSc or the MA degree. MSc degree candidates may articulate between the MA and MSc degrees by meeting the admission and program requirements of the degree to which they articulate and with the approval of the graduate program committee. A student may make one application for articulation.

Minimum Standard Entrance Requirements for MA and MSc Programs
• an undergraduate degree in a field related to the proposed program of study. For example, BSc Computer Science, BSc Engineering (Electrical, Communications, Computer Engineering) BA or BSc in Education, Management, or Economics, Communications, MFA in Art, Design or Performing Arts, MA in Art, Art History, Architecture, Linguistics, Psychology or Philosophy, MArch, MLarch), or
• a graduate degree in another, related discipline. Applicants under this category are required to make the case for (1) the relationship between the discipline in which they hold their previous degree or degrees and this program; and (2) how they would benefit from this program, or
• an undergraduate degree in one of the two categories above. Applicants under this category are required to demonstrate both high academic standing (GPA of 3.5 or better at a Canadian university, or equivalent), for the undergraduate degree, and evidence of research aptitude and accomplishment.

Minimum Standard Entrance Requirements for PhD Program
• a graduate degree in a field related to the proposed program of study. For example: MSc Computer Science, MA or MSc in Education, Management, or Economics, Communications, MFA in Art, Design or Performing Arts, MA in Art, Art History, Architecture, Linguistics, Psychology or Philosophy, MArch, MLarch), or
• a graduate degree in another, related discipline. Applicants under this category are required to make the case for (1) the relationship between the discipline in which they hold their previous degree or degrees and this program; and (2) how they would benefit from this program, or
• demonstrated ability in computing. Students not meeting this criterion may be admitted conditioned subject to SFU regulations and successful completion of a foundational course in computing (this course will not count towards graduation requirements).
• a record of accomplishment in computing. Students not meeting this criterion may be admitted conditioned subject to SFU regulations and successful completion of a foundational course in computing (this course will not count towards graduation requirements). Applicants should submit two samples of their scholarly written work.
• a minimum cumulative GPA of 3.0 or better at a Canadian university, or equivalent, for the undergraduate degree.
• a suitable letter of intent explaining the applicant’s motivation for selecting this degree program; summarizing relevant skills, training and experience; describing proposed research directions within the program and indicating how the course of study would contribute to future intellectual or professional growth. All of the above four points should be explicitly addressed in the letter of intent.
• three reference letters each from a suitably qualified person.

Additional Admission Requirements for both Programs
English Language Proficiency
Students must demonstrate proficiency in the English language through one of the following means:
• a minimum score of 230 on the computer-based TOEFL test with a minimum TWE score of 5
• a suitable letter of intent, summarizing relevant skills, training and experience; describing proposed research directions within the program and indicating how the course of study would contribute to future intellectual or professional growth. All of the above four points should be explicitly addressed in the letter of intent.

Minimum Standard Entrance Requirements for MA and MSc Programs
• a minimum cumulative GPA of 3.0 or better at a Canadian university, or equivalent, for the undergraduate degree.

MA Program
Degree Requirements
Students fulfill the following requirements to complete their degree.

Required Courses
Students must complete the following courses:
IAT 800-3 Foundations of Computational Art and Design
This is a mandatory course for all students in the program, but may be waived for those students having had sufficient formal educational background in art and design computation.
IAT 801-3 Research Methods and Strategies
Students must complete at least four additional courses as described below.

Core Courses
MA students must complete two courses from
IAT 810-3 New Media
IAT 811-3 Computational Poetics
IAT 812-3 Cognition, Learning and Collaboration
IAT 813-3 Artificial Intelligence in Computational Art and Design
IAT 814-3 Knowledge Visualization and Communication

Electives, Special Topics and Directed Readings
MA students are required to complete two courses from the pool of electives, special topics and directed readings. Subject to supervisory committee approval and graduate program committee approval, students in the program may fulfill part of these requirements through other appropriate graduate courses at SFU or elsewhere (the latter subject to SFU rules on external courses). Normally, all students must take at least one course towards these requirements as either an
elective or special topics offered within the program. For determining degree requirements in core, elective, special topics and directed readings categories the number of courses of at least three credits each shall be required. At least one elective is required to be a research methods course appropriate to the student’s course of study.

Special topics courses offered in the program will be approved by the graduate program committee to essentially the same criteria required for approval of a new elective. All special topics courses will be evaluated for suitability for fulfilling the program’s research methods requirement and the results of such evaluation will be noted in the course approval and course outline.

Directed readings are seminar or tutorial experiences that develop special research interests in depth and with faculty supervision. Students should not expect to take a directed readings course where there is a substantially comparable course offered at SFU. Directed readings should be distinct from the work to be undertaken towards the MA Thesis. Normally, directed readings should not be taken under the supervision of a student’s senior supervisor. Normally an MA student would take at most one directed readings course during his or her degree. Directed readings offered within the program will be approved by the graduate program committee to essentially the same criteria required for approval of a new elective. At the time of approval, a directed readings course may be approved as fulfilling the program’s research methods requirement.

IAT 830-3 Learning Design and Media
IAT 831-3 Encoding Media Practice
IAT 832-3 Exploring Interactivity
IAT 833-3 Embodiment and Electronic Performance
IAT 840-3 Models of Networked Practice
IAT 842-3 Theory and Design of Games
IAT 844-3 Spatial Computing
IAT 845-3 Methods for Research into Technological Systems
IAT 861-3 Special Topics I
IAT 862-3 Special Topics II
IAT 883-3 Special Topics III
IAT 884-3 Special Topics IV
IAT 885-3 Special Topics V
IAT 886-3 Special Topics VI
IAT 887-3 Special Topics VII
IAT 888-3 Special Topics VIII
IAT 871-3 Directed Reading I
IAT 872-3 Directed Reading II
IAT 873-3 Directed Reading III

Designated Research Methods Courses
The following courses are designated as research methods courses satisfying the research methods requirement in the elective course requirements. This course requirement is intended to be relevant to the student’s thesis work and must be approved by the student’s supervisor and the graduate program committee as being so appropriate. Courses external to SIAT may also be used to satisfy this requirement and must be approved by the student’s supervisory committee and the graduate program committee.

IAT 833-3 Embodiment and Electronic Performance
IAT 840-3 Models of Networked Practice
IAT 845-3 Methods for Research into Technological Systems

Research Colloquium
The Research Colloquium is an important part of the scholarly life of the program. MA students are required to present in one seminar and are expected to attend a large majority of the seminars in the series.

Co-operative Education
On an optional basis and with approval of the graduate program committee, MA students may participate in co-operative education by placement in a government or private research agency to gain practical experience in their thesis or dissertation area. The co-operative education option is separate from coursework in the program and serves as an adjunct to the thesis/dissertation process.

Co-operative education is intended to provide opportunities for MA students to gain practical research experience in settings external to the program. Enrolment in co-operative education requires successful completion of at least two courses within the program, good academic standing, no deferred grades and approval of the graduate program committee.

The co-operative education option is separate from coursework in the program and serves as an adjunct to the thesis/dissertation process. Students wishing to participate in this program are responsible for making all arrangements external to the program. Students participating in co-operative education will be eligible for the co-op registration fee as listed in the Graduate Fee Schedule of the Graduate Regulations. IAT 861-0 Practicum I
IAT 862-0 Practicum II

Master’s Thesis
MA students produce and defend a thesis as part of degree requirements. All SFU regulations on thesis form and examination process apply. The standards of scholarship – quality of work - set for the MA are no less than those for the doctorate, except the scope, scale and originality of the thesis may be less. Commonly, the Master’s thesis shows refinement of a developed scholarly specialization, a useful replication of established note and in some cases a pretexting or prototype of supporting ideas for eventual PhD research. IAT 897-6 MA Thesis. Students who are working on their Master of Arts thesis register in this course. This course will not count towards the coursework requirements.

MSc Program

Degree Requirements
Students fulfill the requirements to complete their degree.

Required Courses
IAT 800-3 Foundations of Computational Art and Design
This is a mandatory course for all students in the program, but may be waived for those students having had sufficient formal educational background in art and design computation.
IAT 801-3 Research Methods and Strategies
Students must complete at least four additional courses as described below.

Core Courses
MSc students must complete two courses from
IAT 812-3 Cognition, Learning and Collaboration
IAT 813-3 Artificial Intelligence in Computational Art and Design
IAT 814-3 Knowledge Visualization and Communication

Electives, Special Topics and Directed Readings
MSc students are required to complete two courses from the pool of electives, special topics and directed readings. Subject to supervisory committee approval and graduate program committee approval, students in the program may fulfill part of these requirements through other appropriate graduate courses at SFU or elsewhere (the latter subject to SFU rules on external courses). Normally, all students must take at least one course towards these requirements as either an elective or special topics offered within the program. For determining degree requirements in core, elective, special topics and directed readings categories the number of courses of at least three credits each shall be required. At least one elective is required to be a research methods course appropriate to the student’s course of study.

Special topics courses offered in the program will be approved by the graduate program committee to essentially the same criteria required for approval of a new elective. At the time of approval, each special topics course will be evaluated for suitability for study towards the MSc degree and the results of such evaluation will be noted in the course approval and course outline. At the time of approval, each special topics course will be evaluated for suitability for fulfilling the program’s research methods requirement and the results of such evaluation will be noted in the course approval and course outline.

Directed readings are seminar or tutorial experiences that develop special research interests in depth and with faculty supervision. Students should not expect to take a directed readings course where there is a substantially comparable course offered at SFU. Directed readings should be distinct from the work to be undertaken towards the MSc Thesis. Normally, directed readings should not be taken under the supervision of a student’s senior supervisor. Normally an MSc student would take at most one directed readings course during his or her degree. Directed readings offered within the program will be approved by the graduate program committee to essentially the same criteria required for approval of a new elective. At the time of approval, a directed readings course may be approved for study towards the MSc degree. At the time of approval, a directed readings course may be approved as fulfilling the program’s research methods requirement.

Students must complete at least one course from the following list of MSc electives.
IAT 840-3 Models of Networked Practice
IAT 842-3 Theory and Design of Games
IAT 844-3 Spatial Computing
IAT 845-3 Methods for Research into Technological Systems

A special topics course approved by the graduate program committee for study towards the MSc degree.

A directed readings course approved by the graduate program committee for study towards the MSc degree.

The following courses may also be used to satisfy elective requirements subject to the MSc elective requirement above.
IAT 830-3 Learning Design and Media
IAT 831-3 Encoding Media Practice
IAT 832-3 Exploring Interactivity
IAT 833-3 Embodiment and Electronic Performance
IAT 845-3 Methods for Research into Technological Systems
IAT 882-3 Special Topics I
IAT 883-3 Special Topics II
IAT 884-3 Special Topics III
IAT 885-3 Special Topics IV
IAT 886-3 Special Topics V
IAT 887-3 Special Topics VI
IAT 888-3 Special Topics VII
IAT 871-3 Directed Reading I
IAT 872-3 Directed Reading II
IAT 873-3 Directed Reading III

Designated Research Methods Courses
The following courses are designated as research methods courses satisfying the research methods course requirement in the elective course requirements.

IAT 814-3 Knowledge Visualization and Communication
IAT 813-3 Artificial Intelligence in Computational Art
IAT 814-3 Knowledge Visualization and Communication

Electives, Special Topics and Directed Readings
MSc students are required to complete two courses from the pool of electives, special topics and directed readings. Subject to supervisory committee approval and graduate program committee approval, students in the program may fulfill part of these requirements through other appropriate graduate courses at SFU or elsewhere (the latter subject to SFU rules on external courses). Normally, all students must take at least one course towards these requirements as either an
committee as being so appropriate. Courses external to SIAT may also be used to satisfy this requirement and must be approved by the student’s supervisory committee and the program graduate committee.

IAT 833-3 Embodiment and Electronic Performance
IAT 840-3 Models of Networked Practice
IAT 845-3 Methods for Research into Technological Systems

Research Colloquium
The Research Colloquium is an important part of the scholarly life of the program. MSc students are required to present in one seminar and are expected to attend a large majority of the seminars in the series.

Co-operative Education
On an optional basis and with approval of the program graduate committee, MSc students may participate in co-operative education by placement in a government or private research agency to gain practical experience in their thesis or dissertation area. The co-operative education option is separate from coursework in the program and serves as an adjunct to the thesis/dissertation process.

Co-operative education is intended to provide opportunities for MSc students to gain practical research experience in settings external to the program. Enrolment in co-operative education requires successful completion of at least two courses within the program, good academic standing, no deferred grades and approval of the program graduate committee.

The co-operative education option is separate from coursework in the program and serves as an adjunct to the thesis/dissertation process. Students wishing to participate in this program are responsible for making all arrangements external to the program. Students participating in co-operative education will be eligible for the co-op registration fee as listed in the Graduate Fee Schedule of the Graduate Regulations.

IAT 861-0 Practicum I
IAT 862-0 Practicum II

Master’s Thesis
MSc students produce and defend a thesis as part of their degree requirements. All SFU regulations on thesis form and examination process apply. The standards of scholarship – quality of work – set for the MSc are no less than those for the doctorate, except the scale, scope and originality of the thesis may be less. Commonly, the Master’s thesis shows depth and may be a useful development of established knowledge, useful for eventual PhD research.

IAT 898-6 MSc Thesis. Students who are working on their Master of Science thesis register in this course. This course will not count towards the coursework requirements.

PhD Program

Degree Requirements
Students fulfill the following requirements to complete their degree.

Required Courses
IAT 800-3 Foundations of Computational Art and Design. This is a mandatory course for all students in the program, but may be waived for those students having had sufficient formal educational background in art and design computation.

IAT 801-3 Research Methods and Strategies Students must complete at least five additional courses as described below.

Core Courses
PhD students must complete at least two courses from
IAT 810-3 New Media
IAT 811-3 Computational Poetics
IAT 812-3 Cognition, Learning and Collaboration
IAT 813-3 Artificial Intelligence in Computational Art and Design
IAT 814-3 Knowledge Visualization and Communication

Electives, Special Topics and Directed Readings
PhD students are required to complete at least two courses from the pool of electives, special topics and directed readings. Subject to supervisory committee approval and graduate program committee approval, students in the program may fulfill part of these requirements through other appropriate graduate courses at SFU or elsewhere (the latter subject to SFU rules on external courses). Normally, all students must take at least one course towards these requirements as either an elective or special topics offered within the program. For determining degree requirements in core, elective special topics and directed readings, categories the number of courses of at least three credits each shall be used. At least one elective is required to be a research methods course appropriate to the student’s course of study.

Special topics courses offered in the program will be approved by the graduate program committee to essentially the same criteria required for approval of a new elective. At the time of approval, each special topic course will be evaluated for suitability for fulfilling the program’s research methods requirement and the results of such evaluation will be noted in the course approval and course outline.

Directed readings are seminar or tutorial experiences that develop special research interests in depth and with faculty supervision. Students should not expect to take a directed readings course where there is a substantively comparable course offered at SFU.

Directed readings should be distinct from the work to be undertaken towards the PhD Dissertation. Normally, directed readings should not be taken under the supervision of a student’s senior supervisor. Normally a PhD student would take at most two directed readings courses during his or her degree. Directed readings offered within the program will be approved by the graduate program committee to essentially the same criteria required for approval of a new elective. At the time of approval, a directed readings course may be approved as fulfilling the program’s research methods requirement.

IAT 830-3 Learning Design and Media
IAT 831-3 Encoding Media Practice
IAT 832-3 Exploring Interactivity
IAT 833-3 Embodiment and Electronic Performance
IAT 840-3 Models of Networked Practice
IAT 842-3 Theory and Design of Games
IAT 844-3 Spatial Computing
IAT 845-3 Methods for Research into Technological Systems
IAT 881-3 Special Topics I
IAT 882-3 Special Topics II
IAT 883-3 Special Topics III
IAT 884-3 Special Topics IV
IAT 885-3 Special Topics V
IAT 886-3 Special Topics VI
IAT 887-3 Special Topics VII
IAT 888-3 Special Topics VIII
IAT 871-3 Directed Reading I
IAT 872-3 Directed Reading II
IAT 873-3 Directed Reading III

Designated Research Methods Courses
The following courses are designated as research methods courses satisfying the research methods requirement in the elective course requirements. This course requirement is intended to be relevant to the student’s thesis work and must be approved by the student’s supervisory committee and the graduate program committee as being so appropriate. Courses external to SIAT may also be used to satisfy this requirement and must be approved by the student’s supervisory committee and the graduate program committee.

IAT 833-3 Embodiment and Electronic Performance
IAT 840-3 Models of Networked Practice
IAT 845-3 Methods for Research into Technological Systems

Research Colloquium
The Research Colloquium is an important part of the scholarly life of the program. During their studies PhD students are required to present their research work in at least two seminars as part of this series. Students are expected to attend a large majority of the seminars in the series.

Co-operative Education
On an optional basis and with approval of the program graduate committee, PhD students may participate in co-operative education by placement in a government or private research agency to gain practical experience in their thesis or dissertation area. The co-operative education option is separate from coursework in the program and serves as an adjunct to the thesis/dissertation process.

Co-operative education is intended to provide opportunities for PhD students to gain practical research experience in settings external to the program. Enrolment in co-operative education requires successful completion of at least two courses within the program, good academic standing, no deferred grades and approval of the program graduate committee.

The co-operative education option is separate from coursework in the program and serves as an adjunct to the thesis/dissertation process. Students wishing to participate in this program are responsible for making all arrangements external to the program. Students participating in co-operative education by placement in a government or private research agency to gain practical research experience in settings external to the program. Enrolment in co-operative education requires successful completion of at least two courses within the program, good academic standing, no deferred grades and approval of the program graduate committee.

The co-operative education option is separate from coursework in the program and serves as an adjunct to the thesis/dissertation process. Students wishing to participate in this program are responsible for making all arrangements external to the program. Students participating in co-operative education by placement in a government or private research agency to gain practical research experience in settings external to the program. Enrolment in co-operative education requires successful completion of at least two courses within the program, good academic standing, no deferred grades and approval of the program graduate committee.

Co-operative education is intended to provide opportunities for PhD students to gain practical research experience in settings external to the program. Enrolment in co-operative education requires successful completion of at least two courses within the program, good academic standing, no deferred grades and approval of the program graduate committee.

The co-operative education option is separate from coursework in the program and serves as an adjunct to the thesis/dissertation process. Students wishing to participate in this program are responsible for making all arrangements external to the program. Students participating in co-operative education by placement in a government or private research agency to gain practical research experience in settings external to the program. Enrolment in co-operative education requires successful completion of at least two courses within the program, good academic standing, no deferred grades and approval of the program graduate committee.

PhD Comprehensive Examination
The PhD degree requires a comprehensive examination aimed at testing for achievement in each of the program’s three interdisciplinarily broad knowledge, depth of knowledge, topic focus and scholarly skill. With the consent of their Supervisory Committee, students may sit the comprehensive examination following completion of required course work. Upon passing, the student will be admitted to full degree candidacy. The examination may be taken once.

As part of preparation to undertake the comprehensive examination, the student shall submit, to his or her supervisory committee, a comprehensive annotated bibliography of readings used throughout course work and readings related to their proposed thesis topic. The student’s senior supervisor will inform the graduate program committee of the supervisory committee’s consent for the student to sit the examination and will provide a copy of the annotated bibliography.

Upon receipt of the consent and annotated bibliography from the senior supervisor, the graduate program committee will strike an examination committee comprising the student’s supervisory committee, the graduate program chair or designate, and one other member of faculty in the School eligible to act as a Senior Supervisor. The graduate program chair or designate shall chair the examination committee.
The examination shall have three sections. The first will test for breadth of knowledge within the student's course of study. The second will test for knowledge of the proposed thesis topic. The third will test for knowledge of and skill with pertinent research methodology. At least two of the sections shall have a required archival component. The examination shall have an oral component that shall test for all three sections.

The examining committee shall refer to the bibliography in preparing the examination. The examination process should not exceed one term in duration from the date of notification to the graduate program committee of the consent to sit for the examination. This time may be longer should a student be required to retake the examination.

Specific guidelines for these examinations are available from the graduate program assistant.

**PhD Proposal**

The PhD degree requires a dissertation proposal aimed at a critical review of the proposed work, development of research formulation and presentation skills and approval of the dissertation work by the supervisory committee and the graduate program chair. The approval of the graduate program chair is largely for oversight issues, for example, required ethics clearances. The dissertation proposal has two components: a research prospectus and a public event with timely notification given to the campus community.

**PhD Dissertation**

PhD candidates produce and defend a dissertation as part of degree requirements. All SFU regulations on thesis form and examination process apply. A successful dissertation demonstrates an original contribution to a student’s field of study. The standard of work expected is that of peer-reviewed work by accomplished scholars in their specialization.

Candidates are encouraged to consider the professional and career implications of this major field of study towards the coursework requirements. PhD candidate status is neither required for nor implied by registration in this course.

**PhD students who have completed an MA or MSc at SIAT**

PhD students who have completed a Master's (MSc or MSc) degree within the program are not required to complete IAT 800 or IAT 801 as part of their PhD. Such students have an option to apply to the program’s graduate program committee for a reduction in coursework aimed at breadth and scholarly skill. Students must complete at least one core course and three electives.

**School of Kinesiology**

K9625 Shrum Science Centre, 604.291.3573 Tel, 604.291.3040 Fax, http://fas.sfu.ca/kin

**Director** (to be announced)

Graduate Program Chair

T.E. Milner BSc, MSc, PhD (Alta)

Faculty and Areas of Research

For a complete list of faculty, see “School of Kinesiology” on page 139.

E.A. Accili – ion channels, signal transduction, pacemaker mechanisms of the heart

P.N.S. Bawa – neuroscience

A.P. Blaber – environmental and aerospace physiology

J. Dickinson – motor learning and human factors

M. Donelan – locomotion neuromechanics

D.T. Finegood – regulation of carbohydrate metabolism

D. Goodman – motor control and learning

J.A. Hoffer – neural control of movement and neural prostheses

C. Krieger – physiology and pathophysiology of motor control

S.A. Lear – cardiac rehabilitation

C.L. MacKenzie – motor control, human skills

D.R. MacLean – population and public health

R.G. Martenik – motor control

T.E. Milner – human biomechanics/neural control of movement

J.B. Morrison – bioengineering and environmental ergonomics

W.S. Parkhouse – exercise physiology and biochemistry

S.N. Robinson – biomechanics, falls and fall-related injuries in the elderly

M.P. Rosin – environmental carcinogenesis

G.F. Tibbles – cardiac biology

A.V. Vieira – biochemistry and cell biology of vitamin and hormone research

M.D. White – environmental physiology

Adjunct Professors

J.M. Berry – environmental carcinogenesis

L. Hove-Madsen – cardiac physiology

A.J. Loman – 3D technology for endoscopic surgery and human/machine interaction in laparoscopic surgery

P. Pretorius – physiology of aging

D. Robinson – ergonomics and human factors

I. Rossberg-Gempton – social, cultural and psychological factors of health promotion

R.A. Strath – optometry, contact lenses in the work environment

L. Zhang – oral carcinogenesis

**Admission**

For admission requirements, see “1.3 Admission” on page 245. At least 24 hours of appropriate undergraduate science courses are required.

**Graduate Courses**

If the subject matter of a listed course has been previously completed with graduate credit, the course may not be taken again for credit.

**MSc Program (Thesis)**

**Degree Requirements**

The MSc Thesis Program requires a minimum of 18 credit hours of graduate courses and a thesis. If a supervisory committee deems that preparation is inadequate, more than this minimum may be required. At least 12 of these credit hours must be from the graduate course offerings in kinesiology.

All students must take the following two courses.

KIN 801-3 Seminar on Research in Kinesiology

KIN 802-3 Statistical Applications in Kinesiology

Research

Students must also take four additional courses, at least two of which must be from the following.

KIN 810-3 Integrative Muscle Physiology

KIN 812-3 Molecular and Cellular Cardiology

KIN 821-3 Environmental and Exercise Physiology

KIN 825-3 Motor Learning and Control

KIN 840-3 Human Biomechanics

KIN 850-3 Control Systems in Health and Disease

KIN 861-3 Neuroscience

KIN 870-3 Modeling of Physiological Systems

And three of

KIN 810-3 Integrative Muscle Physiology

KIN 812-3 Molecular and Cellular Cardiology

KIN 821-3 Environmental and Exercise Physiology

KIN 825-3 Motor Learning and Control

KIN 840-3 Human Biomechanics

KIN 850-3 Control Systems in Health and Disease

KIN 861-3 Neuroscience

KIN 870-3 Modeling of Physiological Systems

Students must complete at least 12 of these credit hours.

**Time Required for Degree**

Degree requirements can normally be completed in six semesters.

**MSc Program (Course Work)**

**Degree Requirements**

The MSc Program by Course Work requires the completion of 30 credit hours of graduate courses in the school of kinesiology.

All students must take the following two courses.

KIN 801-3 Seminar on Research in Kinesiology

KIN 802-3 Statistical Applications in Kinesiology

Research

At least 12 of these credit hours must be from the graduate course offerings in kinesiology.

**Admission**

For admission requirements, see “1.3 Admission” on page 245. At least 24 hours of appropriate undergraduate science courses are required.

**Graduate Courses**

If the subject matter of a listed course has been previously completed with graduate credit, the course may not be taken again for credit.

**MSc Program (Thesis)**

**Degree Requirements**

The MSc Thesis Program requires a minimum of 18 credit hours of graduate courses and a thesis. If a supervisory committee deems that preparation is inadequate, more than this minimum may be required. At least 12 of these credit hours must be from the graduate course offerings in kinesiology.

All students must take the following two courses.

KIN 801-3 Seminar on Research in Kinesiology

KIN 802-3 Statistical Applications in Kinesiology

Research

Students must also take four additional courses, at least two of which must be from the following.

KIN 810-3 Integrative Muscle Physiology

KIN 812-3 Molecular and Cellular Cardiology

KIN 821-3 Environmental and Exercise Physiology

KIN 825-3 Motor Learning and Control

KIN 840-3 Human Biomechanics

KIN 850-3 Control Systems in Health and Disease

KIN 861-3 Neuroscience

KIN 870-3 Modeling of Physiological Systems

And three of

KIN 810-3 Integrative Muscle Physiology

KIN 812-3 Molecular and Cellular Cardiology

KIN 821-3 Environmental and Exercise Physiology

KIN 825-3 Motor Learning and Control

KIN 840-3 Human Biomechanics

KIN 850-3 Control Systems in Health and Disease

KIN 861-3 Neuroscience

KIN 870-3 Modeling of Physiological Systems

Students must complete at least 12 of these credit hours.

**Time Required for Degree**

It is feasible to complete the MSc Course Work in one calendar year of full-time study. However, it is anticipated that normally six semesters will be required for the completion of this degree. The program can be undertaken by students who are also employed.

**Application Criteria for Transfer from MSc to PhD Program**

Students currently in the kinesiology master’s program may be considered for transfer to the PhD program. Such transfers will be infrequent and very selective. Normally, only students registered in their third through sixth semesters may apply to transfer to the PhD program. The graduate program committee (GPC) reviews such applications, and the GPC chair forwards a recommendation to the dean of graduate studies. The decision is made by the dean of graduate studies.

In addition to section 1.3.4 of the graduate general regulations, eligibility and the decision regarding transfer to the PhD in kinesiology will include the following criteria.

- strong support letters from the senior supervisor and at least one other academic referee
Graduate

PhD Program

Degree Requirements

Students are admitted to the program in an area defined and determined prior to acceptance by the school’s graduate program committee. The program must be within the student’s and the school’s capabilities. Students must show competence in methodology relevant to proposed research.

Normally the supervisory committee will prescribe courses necessary to complete the student’s academic preparation. In exceptional circumstances, the supervisory committee may allow the student to proceed without additional course work and above that for a master’s degree.

Study and research is designed to suit the background and research objectives of each student and may differ widely from student to student.

A student may be directed to acquire an adequate knowledge of a language which would be relevant to his/her studies.

The student will present two seminars plus a dissertation proposal on topics approved by the student’s supervisory committee. They will be presented during the regularly scheduled school seminar time, normally between the first and sixth semesters. Both the timing and subject matter of seminars will be chosen by the supervisory committee in consultation with the student.

Comprehensive Examinations

At a time set by the supervisory committee, and within six semesters of residence, the student takes written and oral comprehensive examinations. The comprehensive examination consists of a minimum of five topics, the subject matter to be chosen by the student in consultation with the supervisory committee and the graduate program chair (or designee, who will act as the committee chair), plus one faculty member from outside the school.

Written

There will be four written examinations.

Part One

One exam paper will be devoted to the student’s field of specialization and will permit extensive exploration of the research area. This examination is typically set by the senior supervisor in consultation with the comprehensive examination committee and consists of the following format:

- Initial response, based on a four to six hour single sitting, closed book exam.
- A further three days during which the student will prepare and submit a response to the same question.

Part Two

The other three examinations are based on three supplementary and related areas chosen by the comprehensive examination committee after consultation with the student. Decision of the examining committee is by simple majority. Possible results of each written exam are pass, defer or fail. A deferral is used when the examiner wishes to defer judgment until after the oral examination. A student who fails one examination must rewrite that component. A complete rewrite of all four examinations at a subsequent sitting is required in the case of either failure of more than one or passing less than two of the written comprehensive examinations. An unsatisfactory performance on the second triad necessitates withdrawal from the program.

Oral

Students proceed to the oral examination when a pass or deferred (maximum of two) grade on all four sections of the written exam is received. The oral exam is held by the comprehensive exam committee. The student will be examined primarily in the areas covered by the written examination, but questions may range over the entire discipline. Possible results of the oral exam are pass, defer or fail. A student who fails the oral exam may take it again only once. A deferral results in specific conditions of remedial work or re-testing as determined by the examining committee. A deferred evaluation will not be converted to a pass unless the committee’s conditions have been met within the established time frame. Otherwise, the deferral will lapse to a fail. The student cannot proceed to the dissertation proposal until the oral comprehensive exam has been passed.

Dissertation

Dissertation Proposal

Upon successful completion of the comprehensive examinations, the candidate prepares a dissertation proposal, which is circulated to faculty and resident graduate students, and will formally present this proposal for discussion at a school open forum. The proposal must precede the dissertation defence by at least one year.

Completed Dissertation

The completed dissertation is judged by the candidate’s examining committee. If the dissertation defence is failed, the candidate is ineligible for further candidacy in the degree program at this University. For information and regulations, refer to the Graduate General Regulations (page 245).

School of Resource and Environmental Management

K9671 Shrum Science Centre, 604.291.4659 Tel, 604.291.4968 Fax, www.rrem.sfu.ca

Director

W.K. de la Mare BAS (Caulfield Tech), PhD (York, UK)

Professors Emeriti

J.C. Day BS, MSc (WNT), PhD (Chic)
J.L. Knetesch BS, MS (Mich State), MPA, PhD (Harv)

Professors

W.K. de la Mare BAS (Caulfield Tech), PhD (York, UK) – models for assessment, forecasting and ecosystem-based management and conservation of marine systems
A.M. Gill BA (Hull), MA, (Alta), PhD (Manit) – tourism and community development
F. Gobas BSc, MSc (Amst), PhD (Tor) – environmental chemistry and toxicology, environmental fate modelling
T.I. Gunton BA, MA, (Wat), PhD (Br Col) – regional resource and development planning
M. Jaccard BA, MRM (S Fraser), PhD (Grenoble) – resource and environmental economics with primary research interests in the field of energy and sustainable economies
R.M. Peterman BSc (Calif), PhD (Br Col), Canada Research Chair – fish population dynamics and management, simulation modelling, risk assessment, decision analysis
P.W. Williams BA (Ott), MA, (Wat), PhD (Utah State) – policy, planning and management issues in tourism and outdoor recreation

Associate Professors

W. Haider MSc (Vienna), MA (Car), PhD (McG) – parks and outdoor recreation, human dimensions in resource management, choice modelling, social decision support systems
K. Lertzman BSc (Manit), MSc, PhD (Br Col) – forest ecology, long term forest dynamics, landscape ecology, conservation biology, global change
E. Pinkerton BA (Wellesley), MAT (Harv), MA (Middlebury), PhD (Brandeis) – maritime anthropology, common property theory, community roles in management of adjacent renewable resources
J.R. Weich AB (Hamilton), MA, PhD (Arizona) – cultural resource management, resource planning and policy, and traditional cultural values, systems of land use, and ecological knowledge

Assistant Professors

S. Cox BSc (Massachusetts, Lowell), MSc, PhD (Br Col) – fish stock assessment, conservation and multi-species management of recreational and marine fisheries, human dynamics
D. Knowler BA, MA (Alta) PhD (York, UK) – ecological economics, bioeconomic modelling, natural resource management in developing countries, valuation of environmental resources
K. Rothley BS (MIT), MBA, ME (Cornell), PhD (Yale) – conservation biology, behavioral ecology, design of protected areas, GIS
M. Rutherford BSc, LLB (Br Col), MRM (S Fraser), MPhil, PhD (Yale) – environmental policy and planning, ecosystem-based management, policy evaluation and learning, environmental law

Associated Faculty

A.S. Harestad, Biological Sciences
M. Schmidt, Geography

Adjunct Professors

D. Alexander BA (Mich), MA (Trent), PhD (Wat), research consultant (regional planning, community economic development)
T. Berry BSc (Sask), MRM (S Fraser) – Principal, Compass Resource Management Ltd. (resource and environmental economics, sustainability analysis, electricity market reform, multi-criteria decision analysis)
D. Boyd BComm (Alta), BLaw (Tor), MA (McG) – Senior Association, Faculty of Law, University of Victoria (environmental law)
M.J. Bradfrod BSc, MSc (S Fraser), PhD (McG) – research scientist Department of Fisheries and Oceans (water flow effects on chinook salmon)
A. deBruyn BSc, MSc (Vic, BC), MRM (S Fraser) – research consultant (regional planning, community economic development)
E. Heyerdahl BSc (Ore), MSc, PhD (Wash), Research/Policy Analyst, Forests Canada (fire science, dendochronology, fire ecology)
K. Lertzman BSc (Manit), MSc, PhD (Br Col) – forest ecology, common property theory, community roles in management of adjacent renewable resources
H. Barker BSc (US Merchant Marine Acad), MSc (Alaska), PhD (Wat) – Director of Planning, Regional District of Comox-Stratford
E. Heyerdahl BSc (Ore), MSc, PhD (Wat), Research Forest, USDA Forest Service (dendochronology, fire ecology and the analysis of historical fire regimes)
R. Hoos BSc (Calg), MSc (Vic, BC) – Director of Northern Affairs, Polar Gas, Calgary (environmental impact assessment)
The School of Resource and Environmental Management offers two interdisciplinary graduate degrees. The master's program culminates in either a Master of Resource Management degree, or a Master of Resource Management (Planning) degree. In addition, there is a doctoral program leading to a Doctor of Philosophy degree.

These programs are designed for recent graduates from a range of disciplines, and for individuals with experience in private organizations or public agencies dealing with natural resources and the environment. Relevant disciplines of undergraduate training or experience include fields such as biology, engineering, chemistry, forestry and geology, as well as business administration, economics, geography, planning and a variety of social sciences. The programs provide training for professional careers in private or public organizations and preparation for further training for research and academic careers.

An optional co-operative education program permits students to work in a private organization or a resource management agency to gain first hand experience.

Co-operative Education
This program places students in a government or private resource or environmental management agency to gain professional experience in applied problem solving. This optional program can lead to work that is directly applicable to REM 699.

Centres and Institutes
Centre for Tourism Policy and Research
The school plays a leading role in the operation of Simon Fraser University’s Centre for Tourism Policy and Research. The centre undertakes research, offers professional development seminars and workshops, and conducts planning and marketing research projects for public and private sector tourism organizations.

Co-operative Resource Management Institute
REM faculty play an active role in this institute, a unit on the Burnaby Mountain campus that houses natural resources management agencies. The institute can facilitate solutions to difficult multidisciplinary issues in resource management by providing an environment where personnel from different management agencies, such as fisheries and wildlife can work side-by-side with SFU faculty, graduate students, post-doctoral fellows and research associates on a daily basis. The university benefits from greater concentration of expertise in resource management and from new opportunities for multidisciplinary, collaborative research programs.

Admission Requirements
Refer to the Graduate General Regulations (page 245) for admission requirements. Contact the School of Resource and Environmental Management directly for an application package (reminfo@sfu.ca). Those with degree qualifications in fields not directly related but with extensive experience in resource management are encouraged to apply.

Individuals will vary in their preparation for the various disciplines in the school. Therefore, admission to the school might be conditional upon the completion of certain undergraduate courses.

Application deadline: February 15.

Graduate Diploma in Quantitative Methods in Fisheries Management
This interdisciplinary program provides an opportunity for students who bring significant work experience to class discussions, faculty and fisheries graduate students.

Application and Admission
Applicants are normally required to hold an undergraduate degree in one of the natural or applied sciences with a minimum 3.0 CGPA or a B grade. Applications from students with other degrees or with equivalent professional training and experience will also be considered.

Applicants must submit the following documentation to the graduate secretary of the school:

- application for graduate admission, available from the Dean of Graduate Studies office's web site at www.sfu.ca/dean-gradstudies/forms.htm;
- official copy of transcript of undergraduate and graduate grades (mailed directly from the granting institution);
- three confidential letters of reference (mailed directly from the referees);
- a one page statement of student interest;
- TOEFL and TWE test scores may be required for applicants whose first language is not English.

Requirements
A mandatory non-credit one day orientation workshop for all new diploma program students will give an overview of how the various courses mentioned below will help students meet challenging issues in fisheries science and management. The workshop will also initiate dialogue between diploma students (who will bring significant work experience to class discussions), faculty and fisheries graduate students.

Required Courses
Students must complete a minimum of 22 credit hours composed of the following courses. It is preferable that students take the first four courses in the following order.

REM 613-5 Current Topics in Fisheries Management
REM 650-5 Quantitative Analysis in Resource Management and Field Biology
REM 661-5 Special Topics in Resources
REM 663-5 Special Topics in Resource Management

Students must also complete one or more of the following courses, or others approved by the academic program co-ordinator and instructor of the course.

REM 612-5 Simulation Modelling in Natural Resource Management
REM 625-5 Risk Assessment and Decision Analysis for Management of Natural Resources

Master’s Program
Requirements
Students must complete seven required courses (see below), six graduate elective courses and a research
A master’s degree in a related discipline
All applicants must submit the following with their application:
• all university transcripts
• a short curriculum vitae providing evidence of awards, academic performance, publications and relevant research and work experience
• a 500-1,000 word statement of interest describing how this program fits into the applicant’s research and career objectives
• three letters of reference (using the form provided in the application package) from respected academics/researchers who have first-hand knowledge of the applicant’s research capabilities and academic training
• results from the GRE Test and
• official results of the TOEFL and TWE or IELTS exams (for applicants whose first language is not English and whose previous education has been conducted in another language)

Applicants must be accepted by an identified senior supervisor prior to admittance. PhD applicants are strongly advised to visit the University for an interview prior to February 15 of the year of requested admission. See “1.3.4 Admission to a Doctoral Program” on page 246.

Transfer from the Master’s Program to the PhD Program
An MRM student who shows exceptional ability may apply to transfer to the PhD program only if the student has the ability to carry out innovative, independent and original PhD level research in that field, and has obtained high academic standing in previous university work. All university regulations governing transfers must be met. Transfers are only permitted when the student has been in the master’s program for two but not more than four semesters.
Transfer applications must be approved by the student’s supervisory committee, the REM graduate studies committee, and the Senate graduate studies committee. Transfer students will be eligible to earn only the PhD degree.

Degree Requirements
Courses
All REM PhD students must complete and maintain an A- average in REM 611-5 Population and Community Ecology
REM 621-5 Economics of Natural Resources
REM 631-5 River Basin Analysis, Planning and Management
REM 698-3 Field Resource Management Workshop
REM 699-10 Research Project
REM 801-5 Principles of Research Methods and Design
REM 802-5 Research Approaches for REM PhD Students
and one of
REM 602-5 The Social Science of Natural Resources Management
REM 641-5 Law and Resources
REM 642-5 Regional Planning I
REM 643-5 Environmental Conflict and Dispute Resolution
plus three elective courses.

Elective Courses
To fulfill the three elective courses requirement, students generally choose those that support and complement their particular research interests. Students may, in consultation with their senior supervisor, select REM courses and/or courses from other departments.

Doctoral Program
Admission
To qualify for admission, an applicant must satisfy all university admission requirements as outlined in the graduate general regulations. Applicants must have:
• the ability to carry out innovative, independent and original PhD level research in that field
• high academic standing in previous university work
within five years of their commencement of the PhD program and maintained an A- average in them. If a student receives a course waiver, the student is not required to replace the course for which the waiver was received with another course.

Comprehensive Examinations
To complete the PhD degree, the student must pass the REM PhD comprehensive examination that examines the candidate’s knowledge and abilities in disciplinary areas that are different from but related to the student’s thesis research. The comprehensive examination includes three disciplinary areas, i.e.
• environmental sciences
• policy and planning in resource and environmental management
• natural resource and environmental economics

To complete the comprehensive examination, the student must prepare a written integrative paper which addresses issues in these three areas. The integrative paper is evaluated by the comprehensive examination committee in accordance with the policies and procedures of the School of Resource and Environmental Management. Students must pass an oral exam based on the integrative paper which is administered by the comprehensive examining committee. The integrative paper will normally be completed in the first three terms in the PhD program and the oral exam will normally be completed early in the student’s fourth term in the program. If the candidate fails the comprehensive exam, and this assessment is approved by the graduate studies committee, the student will be required to withdraw from the PhD program.

Detailed information about the comprehensive examination procedures, dates, and deadlines are provided in the PhD Handbook of the School of Resource and Environmental Management.

Thesis Proposal
PhD candidates must submit a written thesis proposal by the end of the fifth semester of full-time program enrolment. In conjunction with the supervisory committee, students develop a detailed written research proposal which must be defended before this committee. This thesis proposal is intended to demonstrate that the candidate’s research abilities are adequate for PhD level research and to determine that the proposed research is feasible and has merit. The student must pass the thesis proposal defence to remain in the program.

Thesis
A written thesis based on the candidate’s original research in resource and environmental science and management is the final PhD program requirement and must include aspects of at least two disciplinary areas (such as ecology and policy, or toxicology and law). The topic must be approved as noted above and the student’s progress will be evaluated annually in accordance with the graduate general regulations. When the thesis is essentially complete, the student must first present it to a departmental colloquium prior to proceeding to the formal thesis defence. This presentation shall form the basis of the supervisory committee’s recommendation about defence readiness. All PhD candidates must then pass the formal thesis defence, which is conducted in accordance with University regulations. All other PhD general requirements are as outlined in the graduate general regulations.

Residence Requirement
A PhD candidate must be registered and in residence at Simon Fraser University for the minimum number of semesters as described in the Graduate General Regulations (page 245).
Faculty of Arts and Social Sciences

Department of Archaeology

Graduate

6168 Academic Quadrangle, 604.291.4414 Tel, 604.291.3033 Fax, www.sfu.ca/arts

Dean
J.T. Pierce BA (Tor), MA (Wat), PhD (Lond)

Associate Deans
A.M. Gill BA (Hull), MA (Alta), PhD (Manit)
M.A. Gilles BA (Alta), MPhil, DPhil (Oxf)
T.A. Perry BA (Wabash), MA, PhD (Indiana)

Assistant Dean
C. Godman BA, MA (Ont)

Special Advisor to the Dean for Surrey Campus Programs
A.R. Blackman BSc (Lond), BSc (Edin), MSc, PhD (McG)

Graduate Diploma Offered
Graduate Diploma in Urban Studies

Graduate Degrees Offered
Master of Arts
Master of Arts in Liberal Studies
Master of Fine Arts
Master of Public Policy
Master of Publishing
Master of Urban Studies
Doctor of Philosophy

General Regulations
See “Graduate General Regulations” on page 245 for admission requirements, registration, residence requirements and time limit for completion of degrees.

Master of Arts Co-operative Education Program
Master of Arts students in good standing with a minimum grade point average of 3.0 may apply to enter the co-op education program after satisfactory completion of courses as approved by the academic program in which they are completing their MA.

Arrangements for the work semesters are made through the Faculty of Arts and Social Sciences co-op coordinator at least one semester in advance. For further details, see “Co-operative Education” on page 240.

Degree Requirements
A candidate is a student who successfully completes advancement to candidacy requirements (defined below). Normally, advancement happens once the SFU residency is fulfilled, but not later than the end of the ninth semester after PhD admission and not later than the end of the sixth semester for MA students.

MA Program
This program consists of these sequential steps: course requirements, thesis prospectus, colloquium presentation, advancement to candidacy, and thesis completion and defense. Students are expected to complete all MA program requirements in a maximum of nine semesters of full-time registration.

Course Requirements
Students complete a minimum of three graduate courses including ARCH 871 and 876, and a thesis. Students may be required by their committee to take additional courses and must take ARCH 872/873 each semester it is offered. ARCH 873 credit does not constitute part of the normal MA requirement.

Grading for ARCH 872 and 873 will be satisfactory/unsatisfactory (S/U). Course requirements, thesis prospectus and colloquium presentation should be completed by full-time attendance students by the end of the second semester.

Adancement to Candidacy
• completion of two of the minimum three graduate courses.
• preparation of thesis prospectus. The prospectus discusses the proposed research and general background relevant to the research and is submitted to the supervisory committee and approved before step 3 is undertaken.
• after approval of the thesis prospectus, and after consultation between the student and his/her supervisory committee, the student will present a colloquium, the topic of which shall be the substance of the prospectus.

PhD Program
This program consists of these sequential steps: course requirements, comprehensive exam, thesis of research interest. Depending on enrollments, individual or group courses can be arranged in addition to regularly scheduled courses.
Admission Requirements

Applicants must hold a BFA, BA, BMus or BEd in one or more of the art disciplines, with a 3.0 CGPA or better. In special cases, a candidate may be admitted who does not satisfy this requirement but who either possesses comparable certification (an art school or conservatory diploma) or has exceptional experience as a practising artist.

Applicants must demonstrate creative competence with a high standing in music, dance, theatre, film, or visual art undergraduate courses, or substantial experience in these fields outside the university. For consideration by the admissions committee, applicants submit a work portfolio of audio or video tapes, scores, slides, films, plays or academic papers. Performing artists may be asked to audition.

Foreign students may be required to demonstrate proficiency in the English language, attained by scoring 570 or above in the Test of English as a Foreign Language.

Degree Requirements

MFA candidates complete a minimum of 40 credit hours, including 30 of coursework and a project, which is the equivalent of 10 credit hours. Normally, this project is an art presentation accompanied by appropriate documentation with an oral defence. The project plus the required interdisciplinary seminars will account for 20, 15 will normally be from within the school.

Students must complete all of FPA 811-5 Interdisciplinary Graduate Seminar I FPA 812-5 Interdisciplinary Graduate Seminar II FPA 813-5 Interdisciplinary Graduate Studio FPA 888-10 Master of Fine Arts Graduating Project plus three of FPA 883-5 Studio in Fine and Performing Arts FPA 885-5 Studio in Fine and Performing Arts FPA 887-5 Selected Topics in Fine and Performing Arts* FPA 889-5 Directed Study in Fine and Performing Arts*

*Work involving substantial investigation of another artistic discipline outside the area of concentration must be in the proposed work for at least one of FPA 883, 885, 887, 889. A graduate course from another department could substitute for FPA 887 or 889 with the supervisory committee’s permission.

School of Criminology

2630 Diamond Building, 604.291.4762/3213 Tel, 604.291.4140 Fax, crimgrad@sfu.ca, www.sfu.ca/criminology

Director
R.M. Gordon BA (La Trobe), MA (S Fraser), PhD (Br Col)

Graduate Program Director
(to be announced)

Faculty and Areas of Research

See “School of Criminology” on page 160 for a complete list of faculty.

Graduate School of the Contemporary Arts

Facility and Areas of Research

See “School of the Contemporary Arts” on page 153 for a complete list of faculty.

MFA Program

The program, leading to a master of fine arts in interdisciplinary studies, provides advanced training in music, dance, theatre, film, and visual arts. It furthers cross-disciplinary research, technical skill and artistic creativity, and the development of critical awareness of the relatedness of the arts both in contemporary society and in an historical perspective. Courses provide flexibility to accommodate individual differences in background and artistic goals, with emphasis throughout on the production of creative work in an interdisciplinary context.
Areas of Study and Research
The graduate programs in criminology concentrate on advanced academic study and have a strong research emphasis. The broad goal of the program is to prepare students for careers in the teaching of criminology, in criminal research and in policy-making in criminal justice. The emphasis of the graduate programs is to foster a spirit of inquiry and creative endeavour among the students, to develop their critical and analytical capabilities, and to train them in the various techniques of criminological research. The graduate programs focus on five major (core) areas:

- the phenomena of crime
- theories of crime
- criminal justice policy analysis
- methods
- law and social control

Centre for Restorative Justice
See “Centre for Restorative Justice” on page 451.

Criminology Research Centre
See “Criminology Research Centre” on page 449.

Feminist Institute for Studies on Law and Society
See page 449.

Institute for Studies in Criminal Justice Policy
See page 449.

MA Program
Admission
Students holding a baccalaureate or equivalent from a recognized institution must meet the admission requirements for graduate studies. See “1.3.2 Admission to a Graduate Diploma Program” on page 245 and also see “1.3.8 Conditional Admission” on page 246.

Normally, an applicant should have at least one course in social science research methods and one undergraduate introductory course in statistics. Applicants must forward official transcripts and send a short statement of interests which includes a description of previous employment, and research or other work relevant to the candidate’s proposed graduate studies. Letters of recommendation from people who know the candidates and are familiar with their work are required. A cheque or money order for $75 (Canadian), made payable to Simon Fraser University, should be submitted with the application form.

Deadlines for completed applications, for entrance commencing fall semester, is February 1. Applicants will be informed of the outcome as soon as possible thereafter.

Degree Requirements
The school offers MA degrees through two research options: a thesis option, and a coursework, practicum and project option. Students elect which option to pursue in consultation with their senior supervisor.

Thesis Option
This option requires:

- completion of a minimum of 18 credit hours of course work as specified below, and
- satisfactory completion and oral defense of an original MA thesis

The course work requirement includes

- CRIM 800-3 Theories of Crime
- CRIM 810-3 The Phenomena of Crime I
- CRIM 840-3 Proseminar
- CRIM 860-3 Research Methods I
- CRIM 861-3 Research Methods II
- CRIM 862-3 Research Methods III
- CRIM 863-3 Research Methods IV

plus at least six credit hours selected from additional graduate curriculum course offerings.

The thesis will not normally be more than 100 pages in length, including bibliography and footnotes, but exclusive of appendices.

Course, Practicum and Project Option
This option requires:

- completion of a minimum of 21 credit hours of course work as specified below, and
- satisfactory completion of a supervised field practicum, and
- satisfactory completion of a practicum related research project.

The course work requirement includes

- CRIM 800-3 Theories of Crime
- CRIM 810-3 The Phenomena of Crime I
- CRIM 840-3 Proseminar
- CRIM 860-3 Research Methods I
- CRIM 861-3 Research Methods II
- CRIM 862-3 Research Methods III
- CRIM 863-3 Research Methods IV
- plus at least six credit hours selected from additional graduate curriculum course offerings.

The practicum component is met by satisfactory completion of a supervised one semester field placement in a criminal justice related agency.

The project requirement includes completion of a field research project related to the field placement and preparation of a project report. The project report will not normally be more than 50 pages in length, including bibliography and footnotes, but exclusive of appendices.

Satisfactory Performance
The candidate’s progress is assessed at least twice a year by the school (spring and fall). A student who performs unsatisfactorily is not permitted to continue in the program, subject to the review procedure described in Graduate General Regulation 1.8.2.

PhD Program
Admission
The minimum university doctoral requirements for admission are provided in the Graduate General Regulations 1.3.3 (page 245). Normally, an applicant should have at least one course in social science research methods and one undergraduate introductory course in statistics. Direct admission may be approved for persons with a criminology master’s, a master’s in a discipline other than criminology and, under exceptional circumstances, with an
undergraduate degree or its equivalent provided that a CGPA of at least 3.5 has been maintained. Applicants must submit a statement of research interests and at least two examples of previous academic work. In exceptional circumstances, undergraduate degree holders (or equivalent) may be admitted with a BA if they meet University regulations, have demonstrated original undergraduate research, and are recommended for direct entry by at least two criminology faculty who are eligible to teach or supervise in the PhD program. Those who meet the GPA requirement and have demonstrated research ability through field criminal justice experience may also be considered on recommendation of at least two program faculty members. Those so admitted will have their status reviewed by the end of the second semester following admission. The graduate program committee determines the candidate’s ability to complete the PhD by direct entry. The student will either be confirmed as an approved PhD candidate or directed to seek master’s program admission.

Because many disciplines are allied to criminology, the graduate program committee reserves the right to determine equivalent courses already taken in the applicant’s master’s program. At the time of admission, the graduate program committee may waive up to 15 credit hours of requirements. A cheque or money order for $75 (Canadian), payable to Simon Fraser University, must be submitted with the application form. The school must receive the completed application, for entrance to the fall semester, by February 1. Applicants are informed of the outcome as soon as possible thereafter.

Note: Although applicants with two prior degrees from the School of Criminology may be accepted into the PhD program, the school emphasizes that this is not considered a good practice.

Degree Requirements
PhD candidates must take a 33 credit hour minimum consisting of:

- at least three research methods courses (9 hours)
- theories of crime I (3 credit hours)
- seminar (3 credit hours)
- at least eighteen (18) credit hours selected from additional curriculum offerings
- achieve satisfactory completion and oral defence of an original PhD thesis

A maximum of nine hours may be taken in another department or university with supervisory committee and the graduate program committee approval. These courses may be accepted as partially meeting the requirements for any courses in the PhD program.

All students write comprehensive exams in two of the five core areas of the curriculum. Normally, students are expected to finish courses and comprehensives within two years of entering the program.

Note: While two of the course areas are entitled ‘methods’ and ‘theory,’ methodological and theoretical issues are relevant to all core areas.

Dissertation Procedures
In the semester after comprehensive exams are passed, candidates develop a thesis prospectus based on original research defining the proposed investigation and demonstrates the relationship between it and existing scholarship. The thesis proposal is presented to the supervisory committee and, on approval, is circulated to faculty and resident graduate students and presented at a colloquium. The thesis is defended in oral examination by an examining committee constituted under the provisions of Graduate General Regulation 1.9.3 (page 249).

Satisfactory Performance
The progress of each candidate is assessed at least twice a year (spring and fall). Students who perform unsatisfactorily may not continue, subject to review procedures of unsatisfactory progress described in Graduate General Regulation 1.8.2 (page 249).

Department of Economics
3602 Diamond Building, 604.291.3562/3508 Tel, 604.291.5944 Fax, www.sfu.ca/economics

Chair
G. Dow BA (Amherst), MPP, PhD (Mich)

Graduate Program Chair
K. Kasa BSc (Calif), MA, PhD (Chic)

Faculty and Areas of Research
See “Department of Economics” on page 163 for a complete list of faculty.

D.W. Allen – microeconomic theory, industrial organization

D. Andolfatto – dynamic general equilibrium theory, microeconomics, labor markets, monetary theory

J. Artislovic – macroeconomics, monetary theory, learning and adaptation in economics

P. Curry – microeconomic theory, law and economics

J.W. Dean – international finance, developing and transition economies

D. DeVorez – development, immigration, demography economics

G. Dow – microeconomic theory, theory of organization

S.T. Easton – international trade, economic history

J. Friesen – labor economics

R. Gençay – time series methods, financial econometrics

R. Harris – international economics, economic theory

T.M. Heaps – natural resources, regional, mathematical economics

D.S. Jacks – economic history, international trade and finance

R.A. Jones – monetary theory, macroeconomics, finance

A.K. Karaiavan – development, mathematical economics, microeconomic theory

K. Kasa – macroeconomics, international economics

P.E. Kennedy – econometrics, economic education

A. Kessler – contract theory, public economics, labor

B. Krauth – macroeconomics, econometrics

C. Lüflesmann – contract theory, industrial organization

S. Mongrain – public finance, microeconomic theory

G.M. Myers – public and urban economics

N.D. Olevier – natural resources, environmental economics

K. Pendakur – labor economics, public finance

C.G. Reed – economic history, applied microeconomics

M. Rekkas – economic policy, political economics, industrial organization

A.J. Robson – game theory, uncertainty, preferences for status, biological evolution of economic preference

N. Schmitt – international trade, theory, industrial organization

R.W. Schwindt* – industrial organization, international trade, public policy toward business

Z.A. Spindler – public choice

S.D. Woodcock – labor economics, econometric theory

J. Xu – international macroeconomics, monetary economics, macroeconomics

*joint appointment with business administration, home department is economics

MA Program

Admission Requirements
See “1.3 Admission” on page 245 for University admission requirements. As well, the department requires that the applicant must hold a bachelor’s degree with honors in economics or business administration, or must complete additional work to that standard. Normally, the graduate admissions committee will specify the appropriate additional requirements at the time of admission.

Degree Requirements
The MA program has four options. Under each, ECON 798 and 835 are required in addition to other work, unless a grade acceptable to the graduate program committee has been obtained in equivalent courses. These requirements can be satisfied through undergraduate courses with the approval of the graduate program committee.

thesis option – six courses including core work plus an original thesis

extended essay option – six courses including core work plus two extended essays

project option – seven courses including core work plus a research project

course option – eight courses including core work plus ECON 997

Core Course Work
The core course work will normally consist of the following:

- microeconomics – ECON 802
- macroeconomics – ECON 807 or 808
- quantitative economics – ECON 836 or 837

Elective Course Work
The remaining courses beyond those designated as core work will be ECON graduate courses or, with permission of the graduate program chair, courses in graduate business administration and other subjects.

Research and Oral Examination
Under the thesis, extended essay or project option, research papers must meet the standards set out in the Graduate General Regulations (page 245). An oral examination is required covering the students’ written research in particular, and program in general, as outlined in the Graduate Regulations.

Final Examination
Under the course option, there will be a final examination (ECON 997) on core subjects, which normally will occur during the final examination period of the students’ third semester in the program.

Co-operative Education
This optional program gives MA students work experience that complements academic studies. MA students in good standing with a minimum 3.0 GPA may apply to co-op after satisfactory completion of ECON 802, 807 (or 808), 835 and 836 or equivalent. The program consists of two separate work semesters. Arrangements are made through the Faculty of Arts and Social Sciences co-op co-ordinator at least one semester in advance (see page 240).

PhD Program

Admission Requirements
See “1.3.4 Admission to a Doctoral Program” on page 246. Also required is an MA with graduate work in core areas equivalent to ECON 802, 807, 835 and 836. Any core area deficiency must be filled by taking the appropriate course(s) in addition to the course.
work normally required. In certain cases, students may be transferred into the PhD program from the MA program after meeting MA core and credit requirements (16 courses beyond the MA honors is required for such a PhD program).

Degree Requirements
This program allows specialization in economics, economics and business administration, or economics and a related discipline. Normally, every PhD program will include the following:

1. Successful performance in nine approved courses beyond the economics MA requirements listed above. Those specializing in economics must include ECON 803, 804, 808 and 809; those specializing in economics and business administration must include ECON 803 and 804, or 808 and 809. Those specializing in economics must also complete ECON 900 which does not count towards the nine courses. Other courses may be drawn from those normally offered at the graduate level by this or other related departments. Normally, a student must take at least five courses of regularly scheduled course work within this department; exceptions to this rule must be approved by the student’s supervisory committee and the graduate program committee.

2. Successful performance in written comprehensive examinations.

2.1 Students specializing in economics write comprehensive examinations in economic theory and one other field. In addition, students must complete a field either by successfully taking two courses approved by the graduate program chair (other than readings courses) with at least an A- average, or a comprehensive examination in the field. The economic theory comprehensive exams consist of separate examinations in micro and macroeconomic theory. The microeconomics comprehensive theory examination usually encompasses the topics and readings covered by ECON 802, 803, and 804. The macroeconomics comprehensive theory examination usually encompasses the topics and readings in ECON 807, 808, and 809. Comprehensive exams in other fields normally encompass topics and readings presented in the main courses in those fields.

2.2 Students specializing in economics and business administration must write a comprehensive economic theory exam which covers the topics and guideline readings of either microeconomics (ECON 802, 803, and 804) or macroeconomics (ECON 807, 808 and 809). The student will complete three fields, subject to the following: a) at least two field requirements are satisfied by written examinations; b) at least two are drawn from accounting, finance, management science, marketing and organization behavior.

2.3 Arrangements for students specializing in Economics and a related discipline or economics and business administration and a related field will be recommended by the student’s supervisory committee and approved by the department’s graduate program committee.

2.4 Normally, full time students write micro/macro theory comprehensive examinations at the first scheduled opportunity after the exam period of their second semester.

3. An original and significant thesis completed by the candidate under supervision of faculty members of the department.

Dissertation Procedures
A thesis proposal seminar will be given by each candidate in fulfilling the ECON 900 course requirement. ECON 900 will be taken in the summer semester following completion of the student’s theory comprehensive examinations. Each candidate produces a written paper, makes it available to all interested department members and presents it on a pre-announced date in the departmental seminar. The candidate’s supervisory committee should attend and arrange for others interested to also attend. That committee, along with the candidate, should decide on the future course of thesis research paying due regard to the comments that have been received.

A thesis core and a thesis seminar should be given by each candidate after the supervisory committee agrees that the thesis is substantially complete and before it is formally approved for defence. The thesis core should be a paper that describes the major original contributions of the thesis (preferably in a form appropriate for journal submission) and should be available to all interested department members.

The thesis defence. Procedures for this defence are described in the Graduate General Regulations (see “1.11 Publication of Thesis” on page 251).

Satisfactory Performance
Each candidate’s progress is assessed at least once a year (fall). Any student who performs unsatisfactorily is subject to the review of unsatisfactory progress described in Graduate General Regulation 1.8.2 (page 249).

Research on Immigration and Integration in the Metropolis

RIIM is one of four Canadian research centres studying the impact of Canadian immigrants on local economies, family, educational systems and physical infrastructure of cities. RIIM concentrates only on Vancouver but has links to all other Canadian metropolis sites and the world. This research group, based at Simon Fraser University, the University of Victoria and the University of BC, investigates immigrant impact in Vancouver.

Department of English
6129 Academic Quadrangle, 604.291.3136/4614 Tel, 604.291.5373 Fax, www.sfu.ca/english

Chair
T. Grieve BA, MA (S Fraser), PhD (Johns H)

Graduate Program Chair
M. Linley BA (WLaur), MA, PhD (Qu)

Faculty and Areas of Research
See “Department of English” on page 165 for a complete list of faculty.

C.M. Baenjee – 18th century English literature, literary criticism
S. Brook – Post-war British literature, British cultural studies, feminist and gender theory, theories of affect, urban theory
P. Budra – Shakespeare, drama to 1642, Elizabethan and Jacobean poetry and prose, popular culture
D. Chariandy – post-colonial literature and theory, Canadian studies, diasporic theory
R.M. Coe – rhetorical theory and history, contrastive rhetoric; composition theory and pedagogy; literacy; discourse analysis (including ‘public doublespeak’ and ‘plain language’), genre theory, rhetorical approaches to literary criticism, drama
C. Colligan – 19th century English literature and culture, obscenity, British Imperialism
S. Collins – American literature, Modernism, contemporary poetry and poetics
L. Davis – Romantic literature, Scottish and Irish literature 1700-1850, literature and nationalism, feminist critiques of Romanticism, 18th century folk music and print culture

S. Delany – Chaucer, medieval comparative literature, middle English, Tudor literature, Marxist criticism, early literature (Old Testament, Middle Eastern and Greek), critical theory, gender in art
J. Derksen – contemporary poetry and poetics, globalization, urbanism, critical methodologies
H. DeRoo – Old English, Middle English, heroic literature, Old Norse, studies in language
P. Dickinson – modern drama, comparative literature, Canadian literature, Queer theory and gender studies, literature and film
C. Gerson – Canadian literature and literary history, women and literature, print culture in Canada
M.A. Gillies – 19th and 20th century British literature
T. Grieve – modernism (poetry and fiction), 20th century literature, nineteenth century poetry; the essay; history and theory of rhetoric; composition
A. Higgins – Medieval and Renaissance drama, Shakespeare, Middle English literature
M. Levy – romantic literature, women writers, domesticity and the family, law and literature, literature and the environment
M. Linley – Victorian poetry and prose; 19th century women poets, literature and visual representation
S. McCall – contemporary Canadian literature, First Nations studies, post-colonial studies
R.A. Miki – 19th American literature, modern American poetry, contemporary Canadian poetry.
Asian Canadian literature, race and cultural theory
P.M. St. Pierre – Commonwealth literature, Canadian literature
E.A. Schellenberg – Restoration, 18th century literature, 18th century women writers, print culture
D. Symons – Medieval literature, Middle English, romance, Chaucer, manuscript and print culture, popular culture, critical theory
D. Stouck – American literature, Canadian literature
J. Sturrock – poetry of the Romantic period, especially William Blake, 19th century domestic fiction; women writers of the 19th century, especially Jane Austen and Charlotte Mary Yonge; literature and the visual arts, especially 1780-1900; Iris Murdoch,
A.S. Byatt
S. Zegveld – rhetoric and writing, speech act theories, gender and discourse, American literature

MA Program
Admission
In addition to requirements in the Graduate General Regulations (page 245), the department requires evidence of academic writing ability in the form of at least two substantial literary essays which are scholarly in format and approach. The papers may be undergraduate essays previously prepared, or ones specially written for this purpose. Applicants intending to specialize in writing and rhetoric may wish instead to submit a portfolio of representative writings, which should include at least one academic paper.

Programs
This program develops scholars with a critical and comprehensive background in English studies. Students concentrating in writing and rhetoric will normally have a substantial background in English studies, but may come from a variety of backgrounds. While offering specialization in one of various areas of strength in the department, the program requires students to ground their interest in a wide and flexible understanding of English studies. Students without a strong background in English may be required to strengthen their preparatory or preparatory assistance.

The program may be completed in two ways. In option A, students take four courses, write a thesis of about 100 pages, and defend it in an oral examination. Option B requires six courses and an MA final paper which is then defended in an oral examination.
Graduate

Students in either option may have one course as an individually supervised study to pursue a special interest or satisfy a need. Students may enrol in one or two courses per semester. Students who are teaching assistants will complete in six semesters. For further departmental requirements consult the department handbook. The department recognizes the special needs of working people who wish to improve qualifications. Some graduate courses are regularly offered at night.

Specialization in Print Culture 1700-1900
The MA program also permits students to specialize in the politics of print culture (1700-1900), focusing on the changing role of printed texts in an emerging commercial society. This specialization has an interdisciplinary focus.

Interdisciplinary Studies
In addition to the MA programs described here, which accommodate and encourage interdisciplinary study, the University offers degree programs to exceptionally able applicants. The requirement for proposed studies cannot be carried out in any existing program. Students interested in pursuing an MA may wish to submit a proposal for special arrangements through the Office of the Dean of Graduate Studies. See “1.3.4 Admission to a Doctoral Program” on page 246.

Examinations
While the general regulations set the minimum CGPA necessary for continuance at 3.0, the department regards grades below B to be unsatisfactory and expects students to achieve an average above the minimum. If progress is deemed unsatisfactory, withdrawal under section 1.8.3 of the Graduate General Regulations (page 249) may be required. Option A students take four courses, write a thesis of about 100 pages and defend it in an oral examination. Thesis option students submit a thesis proposal and are examined by the supervisory committee no later than one semester following the completion of coursework. Students proceed with the thesis only after the approval of the supervisory committee and the graduate program committee.

Option B students choose a paper or project from one of their six courses. The paper (or project) is revised and expanded to make it suitable for publication. The expanded work is examined by two faculty members, and defended in an oral examination. The paper (or project) must be completed and submitted for examination no later than the end of the semester following completion of coursework, and is judged on a pass/fail basis. A student who fails may be permitted a second and final attempt.

Language Requirement
All MA students must demonstrate a reading ability in one language other than English, the choice of which must be acceptable to the graduate program committee. This requirement may be fulfilled by completing two (one-semester) undergraduate courses in another language, or by passing a time-limited exam consisting of the translation of a literary or scholarly passage in that language. A dictionary is permitted. For further information and regulations, see “1.1 Degrees Offered” on page 245.

Joint Master’s in English and French Literatures
This program allows students who have already been trained in both literatures to continue studies beyond the undergraduate level. See page 290.

PhD Program
Applicants to the Department of English’s small PhD program will have a well planned project that integrates into the department’s areas of specialization. Cross disciplinary proposals and innovative studies are encouraged. Students are expected to contribute to all stages of the program. The department has expertise in major areas of English literature and language with special strength in the 20th century. The department’s Centre for Research in Professional and Academic Writing offers opportunities for advanced study in rhetoric and writing, including participation in the centre’s research projects and institutional programs. The Bennett Library’s contemporary literature collection has the largest single collection of post war experimental and avant garde poetry in Canada. It also contains a substantial Wordsworth collection and William Blake drawings, illuminations and engravings in facsimile.

Admission
Students must have an MA or equivalent with high standing from a recognized university and have a good background in English studies. To fill for academic gaps, extra undergraduate or graduate courses may be required. To apply, three reference letters, two samples of academic writing, and a one to two page description of the doctoral project are required. This program has been approved for part time status.

Application Deadline
February 1

Residence Requirement
Six semesters

Program Requirements
The first two years of the program provide necessary grounding before students pursue a thesis project; in the third year, students will engage in the research and writing of the dissertation. Upon admission, an advisor is assigned until a supervisor and supervisory committee are selected. The doctoral program has three stages.

Courses
Four courses are completed by the end of the third semester: any three of choice plus ENGL 810/811 graduate professional development seminar, a required graduate course. The senior supervisor in consultation with the graduate program committee will advise students in their choice of courses.

Field Exams and Thesis Oral
Students must write field exams by the end of the sixth semester, and complete the thesis oral by the end of the seventh semester.

The Thesis
Students complete their research and proceed with the writing of their thesis. Students have 9-12 semesters to complete their degree.

Individualized Field Exams
Each candidate will write two field exams. The student will take home the examination question and complete the paper within three days. The submitted examination paper should be no more than 30 pages. There will be no oral defence. In each field exam area, a partial reading is prepared by the faculty specializing in the area. Students then take the reading list. The completed list must be approved by two faculty in the area and the graduate program committee. Current field reading lists may be obtained from the department.

Both field exams are completed by July 30 of the second year in the program (sixth semester). The examiners consist of two faculty in the area appointed by the graduate program committee. The senior supervisor cannot be an examiner in the field exam. Students are awarded pass/fail or pass with distinction for truly exceptional exams. Those in a field exam may be allowed to repeat it once not later than the following semester. A second failure leads to elimination from the program.

Thesis Oral
The thesis oral ensures coverage in the thesis area. Upon successful completion of field exams, the student submits a reading list by September 15, on the background readings for the thesis area, to the senior supervisor. The supervisory committee for the thesis oral, consisting of the senior supervisor and one other supervisor, responds to the proposed reading list by October 1. The final list is approved by the graduate program committee. The oral examination on the thesis area and background material will take place by December 15. The oral exam will be approximately two hours. The oral will be graded pass/fail. In exceptional cases a distinction will be recognized.

Language Requirement
PhD students must demonstrate a reading ability in a language other than English that is acceptable to the supervisory committee. Ability is determined by a time limited exam of a literature or criticism passage translation in that language. A dictionary is permitted. The Department of French and the Latin American Studies Program offer courses to help students meet language requirements. For German or Russian courses, consult the Office of the Dean of Arts and Social Sciences. For further information and regulations, see “Graduate General Regulations” on page 245.

Thesis
In consultation with the graduate program committee, the student creates a supervisory committee consisting of a senior supervisor and two readers (one may be from another department). By the third semester, the student submits the proposed supervisory committee and thesis proposal to the graduate program committee for approval. The completed thesis is defended in an oral examination. The (defence) examining committee consists of a chair (normally the graduate program director), members of the supervisory committee when, for instance, the development of a thesis area is still in process, the senior supervisor, and at least one other department member), a faculty member external to the Department of English, and an external examiner who is not a member of Simon Fraser University.

From the time of the supervisory committee’s appointment, the student and senior supervisor meet regularly (at least three times a semester) through the field exam period, the thesis oral semester, and the thesis research and writing period. It is the student’s responsibility to set a meeting schedule. The senior supervisor should inform the graduate program committee of absences of more than a month to arrange for another committee member to meet regularly with the student. Students in research (ENGL 899) should give the supervisor a written report about the research at the end of each semester. This is particularly important for those who do not submit chapters of their work. Any changes in direction or new developments should be discussed. Students may make changes to their supervisory committee when, for instance, the development of a more refined topic indicates a different faculty member would be more appropriate for the committee. Changes made for any reason must be formally approved by the graduate program committee and the dean of graduate studies.
Department of French


Chair
P.M. Wrenn BA, MA, PhD (Tor)

Graduate Program Chair
R. Canac-Marquis BA, MA (UQAM), PhD (Mass)

Faculty and Areas of Research
See "Department of French" on page 168 for a complete list of faculty.

L. Bonenfant – Québécois literature, 19th century French literature
R. Canac-Marquis – transformational syntax, morpho-syntax, formal semantics, anaphora, second language acquisition
R. Davison – 19th century French literature, correspondence and pedagogy, women writers, emigre writers
M.C. Fauquenoy – French linguistics, sociolinguistics, Croole French dialects
C. Guibault – experimental phonetics, applied linguistics, dialectology, speech perception
S. Steele – Chretien de Troyes, Medievalism and the Third Republic, French war writing, modern French poetry
J. Viswanathan – modern French and French Canadian novel, narrative theory, film and fiction

The department offers graduate research leading to an MA, with a concentration in either French linguistics or French literature. Students interested in French as a second language (FSL) should contact the graduate program chair. (The FSL option will be of particular interest to candidates contemplating a career in the teaching of French.) Students seeking PhD program admission may apply under the special arrangements provisions of graduate general regulation 1.3.4.

The major areas of study are as follows.

Linguistics: Linguistic analysis of French (sound system, morphology, syntax, lexicon), varieties of French (social, regional and stylistic variations), French Creoles, French linguistic theories, French applied linguistics, theoretical approaches to the acquisition of French as a second language. A variety of practical applications of linguistic theory may be envisaged: pedagogy, translation, stylistic analysis, etc.

Literature: Periods and genres: French Medieval literature, travel accounts, 18th century literature, poetry and novel of the 19th century, 20th century fiction, poetry and drama, Québécois literature. Critical approaches: literature and society, women writers, history of literature, cultural studies, discourse analysis, interdisciplinary approaches to literature, teaching of literature.

MA Program

Concentration Requirements

Candidates for admission must satisfy the general admission requirements for graduate studies as shown in Graduate General Regulations 1.3.2 (page 245) and 1.3.8 (page 246).

Program admission requires a sound background in French literature or French linguistics, as well as a good command of both oral and written French. Candidates lacking these must remedy the deficiency before admission is granted. This may be accomplished through satisfactory completion of one or two semesters as a qualifying student (Graduate General Regulation 1.3.5 page 246).

Upon admission, each student will be assigned a temporary supervisor.

The program’s degree requirements may be completed ‘with thesis,’ ‘with project’ or ‘without thesis.’ In each case, the student works under a supervisory committee’s direction (Graduate General Regulation 1.6 page 248) that has been appointed by the end of the second semester.

Students are normally admitted initially to the MA without thesis option. Those wishing to transfer to the MA with thesis or MA with project option may do so after completion of their second semester in the program, on the recommendation of their supervisory committee, and subject to the approval of the graduate studies committee. Program requirements: course work, thesis topic, project topic or area of field examination, as well as any additional requirements, must be approved by the supervisory committee and the graduate studies committee.

Degree Requirements

Students may be required to complete additional courses to remedy deficiencies or to ensure suitable thesis preparation or project research.

The following are the minimum requirements.

MA with Thesis

Students in the MA with Thesis option must successfully complete a minimum of 15 credit hours of graduate course work from their chosen concentration, either in linguistics or in literature. Within the 15 hours, with the approval of the senior supervisor, students may take up to five credit hours outside the Department of French. In addition, students complete a thesis of about 100 pages that is defended at an oral examination as described in sections 1.9 and 1.10 of the Graduate General Regulations. Students must submit a written thesis proposal no later than one semester following the completion of course work. Substantive work on the thesis may proceed only after approval of the thesis proposal by the supervisory committee and the graduate studies committee.

MA with Project

Students selecting this option are required to complete a minimum of 20 credit hours of graduate course work. Fifteen hours must be completed within the Department of French. With the approval of the senior supervisor, up to five credit hours may be completed by taking a course outside the department. In addition, students must complete a project that makes a contribution to French linguistics, French Canadian literature or French philosophy. This project may be submitted for oral examination. The project may involve a practical component in a non-traditional format. Students must submit a written project proposal no later than one semester following the completion of course work. Substantive work on the project may proceed only after approval of the project proposal by the supervisory committee and the graduate studies committee.

MA without Thesis

Students selecting this option are required to complete a minimum of 30 graduate work credit hours. With the senior supervisor’s approval, up to 10 credit hours may be completed by taking courses outside the department. In addition, students must take a field examination based on three completed courses. Field examination preparation will be undertaken on the supervisory committee’s advice.

Language Requirement

Students must demonstrate to the graduate program committee an acceptable competence level in written and oral French and must show at least a reading knowledge of one language other than English or French that is acceptable to the supervisory committee. This requirement is fulfilled by completing two courses in that language or by passing an exam of translation of a 250 word text into English.

Graduate Courses

Core Courses

Course selection must be made in consultation with the student’s senior supervisor.

Linguistics and Literature

FREN 803-5 Research Methods in French Linguistics and/or French Literature

Linguistics

FREN 804-5 Topics in the Structure of French I
FREN 904-5 Topics in the Structure of French II
FREN 806-5 Topics in the Acquisition of French
FREN 810-5 Pragmatics and the Structure of French
FREN 811-5 Topics in the Varieties of French
FREN 812-5 Approaches to the Linguistic Analysis of French
FREN 816-5 Sociolinguistic Approaches to French Studies

Literature

FREN 820-5 Types of Discourse
FREN 821-5 Theories and Methods of Literary Analysis
FREN 822-5 Socio-cultural Approaches to French Literature
FREN 823-5 Interdisciplinary Approaches to French Literature
FREN 824-5 Topics in French Canadian Literature
FREN 825-5 Topics in French Literature
FREN 826-5 Monographic Studies

Joint Master in English and French Literatures

This joint master’s program allows students who have already been trained in both literatures to continue studies beyond the undergraduate level. Students register in and, if successful, receive a degree from one of two departments, known as the home department. The other department is designated the associate department.

Application for Admission

Students may apply to either department or to both, indicating a preference. Both departments must agree on the student’s admission or on conditions for admission. A home department will be assigned in consultation with the student and with the agreement of both departments. A minimum of 15 upper division undergraduate credit hours in each discipline is required for admission. The dual and two semesters of course work, will have the option of completing an MA either with thesis or without, subject to the agreement of both departments.

Supervision

The home department selects a joint supervisory committee of two faculty from the home department and one from the associate department.

Home Department Requirements

If English is the home department, both of ENGL 810-5 Graduate Professional Development Seminar Part I ENGL 811-5 Graduate Professional Development Seminar Part II

Concentration Requirements

In addition to the home department requirements shown above, students must also complete either the MA with thesis or without thesis option.

MA with Thesis

For this option, students successfully complete another 20 credit hours selected from literature...
courses in the Departments of French and English, including at least one course from each department (one course from one department and three from the other, or two from each department). Students also complete a thesis of about 100 pages on a topic acceptable to the supervisory committee, and it is defended at an oral examination as described in Graduate General Regulations 1.9 (page 249) and 1.10 (page 250).

MA without Thesis
For this option, students successfully complete another 30 credit hours selected from literature courses in the Departments of French and English, including at least two courses from each department (two courses from one department and four from the other, or three from each department) and a written field examination based on three completed courses. Field exam preparation is undertaken on the advice of the supervisory committee.

Department of Geography
7123 Robert C. Brown Hall, 604.291.3321 Tel, 604.291.5841 Fax, www.sfu.ca/geography
Chair (to be announced)
Graduate Program Chair (to be announced)
Faculty and Areas of Research
See “Department of Geography” on page 171 for a complete list of faculty.

A.V. Wister HBA, MA, PhD (WOnt)

W.G. Gill – geography of transportation

Areas of Research
The Department of Geography offers MA, MSc and PhD degrees in the Faculties of Arts and Social Sciences, and Science. For an MSc degree in physical geography, see the Department of Geography entry in the Faculty of Science section (page 319).

Emphasis is placed on the application of theoretical frameworks to the analysis of social, economic and physical landscapes, with particular reference to western North America.

MA Program
Admission
Normally, MA candidates should have an undergraduate 3.25 for entry. Admission is in the fall semester and applications should be completed by February 1. Admission requires a command of both quantitative techniques and qualitative methodologies. Candidates lacking these will take courses equivalent to GEOG 251 and 301. The admitted candidate works under the faculty advisor’s guidance pending the choice of a supervisory committee consisting of two faculty members, one of whom may be from outside the department. They will be chosen by the beginning of the second semester.

Degree Requirements
All MA candidates are expected to complete the requirements (30 credit hours) in six semesters. The MA program requires a thesis (18 credit hours). The remaining 12 hours are required and elective courses. The recommended maximum thesis length is 120 pages (including bibliography and end notes, but excluding appendices). The thesis involves the conceptualization of a problem and the collection, analysis and interpretation of empirical data. Normally, MA students present their proposed research at a one day conference (Research Day) held annually in the spring semester. A written proposal should be submitted to the student’s supervisory committee, defended in colloquium and approved by the end of the second semester. The completed thesis will be judged by the candidate’s examining committee at an oral defence.

Course Requirements
GEOG 600 and 601 are seminars on graduate studies in geography which are offered each fall and spring semester. Grading is on a satisfactory/unsatisfactory basis. Attendance is compulsory in order to obtain a satisfactory grade. GEOG 604 is required for MA students and is offered every year. With the advisor’s consent, the student can request that this be replaced by another course. One of GEOG 620 and 640, Special Topics courses, will normally be offered each year depending on students’ research interests. All other courses are offered less frequently, dependent on student demand and faculty availability.

Master of Science Program
The department offers a program leading to the MSc degree in the Faculty of Science. See the Geography entry in the Faculty of Science section (page 319).

PhD Program
For admission requirements, see “Graduate General Regulations” on page 245. Applicants must have completed the MA or MSc requirements at Simon Fraser University or equivalent. Students admitted to the PhD program without an appropriate background may be required to make up specified courses.

Supervisory Committee
The student, upon admission, works under the guidance of a faculty advisor, pending the choice of a supervisory committee. The supervisory committee, normally consisting of three faculty members, one of whom may be from outside the department, will be chosen by the beginning of the second semester.

Degree Requirements
The advisor, and subsequently the supervisory committee, and the student determine a program of study to suit the background and research objectives of the candidate. After consultation with the supervisory committee, however, students can elect, or may be required to take courses in order to acquire knowledge and skills, including language skills, relevant to their research.

Qualifying Examination
Written and oral qualifying exams establish competence to proceed with doctoral thesis research and are taken at the end of the second residence semester and no later than the end of the third. Students who fail the written or oral exam may retake each one, after a one semester lapse.

Both parts of the qualifying examination must be successfully completed by the end of the fourth residence semester. The qualifying examination committee consists of supervisory committee members (the senior supervisor acts as chair), plus an examiner external to the supervisory committee.

Written exams comprise four papers jointly agreed upon by the qualifying examination committee. The oral must be held within three weeks of completion of the written examination. The oral examination is examined primarily in topics covered by the written exams, but questions may range over the entire discipline.

Thesis
Candidates successfully completing qualifying examinations will present a thesis proposal at a departmental colloquium no later than the end of the fifth residence semester. The supervisory committee must approve the written proposal prior to the start of substantive research. The completed thesis will be judged by the candidate’s examining committee at an oral defence. If the defence is failed, the candidate is ineligible for further degree candidacy in the program. See “Graduate General Regulations” on page 245.

Department of Gerontology
2860 Harbour Centre site, 604.291.5065 Tel, 604.291.5066 Fax, gero@sfu.ca, www.harbour.sfu.ca/gerontology/
Chair
A.V. Wister HBA, MA, PhD (WOnt)
Graduate Program Chair
N. O’Rourke HBBA (WLaur), MA (Br Col), PhD (Ott)
Faculty and Areas of Research
See “Department of Gerontology” on page 174 for a complete list of faculty.

H. Chaudhury – design for dementia, place-based reminiscence, long term care and self in dementia
G.M. Gutman – seniors’ housing, long term care, dementia, health promotion/population health and aging, program evaluation
Both Concentrations

GERO 300-3 Introduction to Gerontology*
GERO 400-4 Seminar in Applied Gerontology*
GERO 420-4 Sociology of Aging
KIN 461-3 Physiological Aspects of Aging
PSYC 357-3 Psychology of Adulthood and Aging *recommended

All students will also be required to complete at least one undergraduate methods course.

Under special circumstances, students may be admitted without all five prerequisite courses.

Curriculum and Description

There are five program components: core courses, required concentration courses, electives, project or thesis and internship. Students complete seven courses: two core, two required from the chosen concentration, and three electives. They also complete a project. Under special circumstances, students may complete a thesis in lieu of the project, and take one less elective course. (See Project or Thesis Option below).

Core Courses

These courses will be required of all students.

GERO 801-4 Health Policy and Applied Issues in Gerontology
GERO 803-4 Analytical Techniques for Gerontological Research

Areas of Concentration Requirements

These courses are required in each concentration.

Aging and the Built Environment

GERO 810-4 Community Based Housing for Older People
GERO 811-4 Institutional Living Environments

Health Promotion/Population Health and Aging

GERO 820-4 Principles and Practices of Health Promotion
GERO 822-4 Families, Communities and Health

Elective Courses

Students may fulfill elective requirements by selecting from the following courses, completing required courses from another gerontology concentration, or from outside the program if approved by the student’s graduate advisory committee.

GERO 802-4 Development and Evaluation of Health Promotion Programs for the Elderly
GERO 830-4 Human Factors, Technology and Safety
GERO 840-4 Special Topics in Gerontology
GERO 889-4 Directed Studies
GERO 898 MA Project
GERO 899 MA Thesis
SA 886-5 Selected Problems in Social Analysis*

*when offered as Social Policy in a Changing Society

Project or Thesis Option

All students are initially admitted into the project stream and normally present a written project proposal to a faculty member, chosen as a supervisor. After consultation with the project supervisor, a second member is selected to complete the supervisory committee. Examples of projects include: program evaluation for older adults; design and implementation of environments or services for elderly persons; and analyses of secondary data. A project report will be evaluated by the supervisory committee and a qualified external reader. The project requirement must meet the guidelines set out in the Graduate General Regulations (page 245).

A small number of highly qualified students who wish to prepare for advanced graduate training may be permitted to elect a thesis option after one semester in the program. Students allowed to complete a thesis will only be required to complete two elective courses. The thesis provides a focused research of high quality. Students will be encouraged to engage in original and innovative research to meet this requirement. Committee selection and approval of the thesis proposal will follow the same steps as the project. The thesis requirement must meet the guidelines in the Graduate General Regulations (page 245).

Internship

Students lacking relevant work experience will supplement their program with an internship by working for an agency or organization in a position of responsibility for a maximum of one semester.

Department of History

Admission for MA and PhD students will be in the fall of each year. Admission of graduate students will be in the fall of each year. Applicants, or PhD areas of specialization in the case of MA applicants, or PhD areas of specialization in the case of PhD applicants, will be considered for admission. The department reserves the right to accept candidates only when a qualified supervisor is available and the University resources (including library facilities) are deemed adequate for the student’s stated research priority.

A small number of highly qualified students who wish to prepare for advanced graduate training may be permitted to elect a thesis option after one semester in the program. Students allowed to complete a thesis will only be required to complete two elective courses. The thesis provides a focused research of high quality. Students will be encouraged to engage in original and innovative research to meet this requirement. Committee selection and approval of the thesis proposal will follow the same steps as the project. The thesis requirement must meet the guidelines in the Graduate General Regulations (page 245).

Internship

Students lacking relevant work experience will supplement their program with an internship by working for an agency or organization in a position of responsibility for a maximum of one semester.

Department of History
Graduate Courses
HIST 814 is a compulsory MA seminar offered each fall semester. HIST 806 and 810 are also offered as seminars each year. At least two other seminars will normally be offered, the choice depending on the research interests of the majority of the students.

MA Program

Conditions of Admission
MA candidates must satisfy the minimum University entrance requirements: at least a 3.0 average or its equivalent. In addition, the department requires a 3.33 (B+) average in history courses taken during the last two years of the undergraduate program. A degree in a discipline related to history may be accepted in some cases.

Programs of Study
Upon graduate program admission, students are assigned a provisional supervisor. See “1.6.4 Supervisory Committee” on page 248 for supervisory committee information. All MA degree candidates must satisfy the following minimum requirements, totaling 30 credit hours.

The department offers two options. The thesis option requires 20 credit hours (four courses of five credit hours each), of which at least 15 must be in graduate courses in the department. The project option requires 30 credit hours, (six courses of five credit hours each) of which 20 must be in graduate courses in the department.

Normally, three seminars are offered each fall and spring semester, including one in conjunction with the University of British Columbia’s Department of History, at the Harbour Centre site.

All Canadian history students must take HIST 806, another seminar of their choice, and the research seminar HIST 814. All European history students take HIST 810, another seminar of their choice, and the research seminar HIST 814. Other students must take one seminar and HIST 814. Remaining course requirements may be taken as readings courses.

In HIST 814, each thesis option student writes a paper which becomes the thesis basis. It should present a coherent thesis topic and place within the framework of existing area work. Each project option student writes a short research paper which becomes the basis of the required research project.

Full time MA thesis option students complete degree requirements in a maximum of five semesters, and project option students in a maximum of three semesters. Part time thesis option students complete degree requirements in a maximum of eight semesters and part time project option students in a maximum of six semesters.

Students with significant financial support from fellowships, scholarships or teaching assistantships are expected to take a full semester course load. Those with no financial aid from fellowships, teaching assistantships, etc. may be considered part time students and take only one course per semester.

Students complete a thesis of 10 credit hours with a maximum length of 100 pages, or a research project of approximately 35 pages. The student’s thesis/research project must demonstrate capability in scholarly research and procedures as well as independent critical thought. Before the beginning of the third semester, thesis option students defend the thesis prospectus before an examining committee made up of the supervisory committee and the graduate program committee chair. The project option student will defend his/her research project in the same time frame.

Full time thesis option students complete their degree requirements in a maximum of five semesters, and project option students in three. Part time students may take one additional year for completion.

Language Requirements
Students must demonstrate a reading ability in a language other than English that is acceptable to the supervisory committee. Students proposing to study Canadian history must demonstrate an ability to read French. Ability is determined by a time limited examination consisting of the translation of a passage of history in the particular language. A dictionary is permitted. The Department of French offers courses to help students meet the language requirements.

PhD Program

General
Prospective PhD candidates are advised that the degree is granted in recognition of the student’s general grasp of the subject matter of a broad area of study; for the ability to think critically; and for the power to analyse and co-ordinate problems and data from allied fields of study.

All doctoral students are expected to take at least one graduate seminar course for credit in their first year.

A student ordinarily is admitted to the PhD program after completion of an MA or its equivalent. BA applicants applying directly to the PhD program must have at least a 3.5 GPA or its equivalent. Candidates for the MA may, under exceptional circumstances, be admitted to the PhD program without completing the MA requirements if they have 20 credit hours of course work. Admission from the MA program is contingent upon a distinguished level of performance, recommendation of directing faculty, scholarly potential, and available department resources.

Programs of Study
Upon program admission, each student is assigned a faculty supervisor. See “1.6.4 Supervision” on page 248 for information on supervisory committees. The supervisory committee and the student determine three fields of study, at least two of which are chosen from the list below. A third field may be chosen within or outside the Department of History with permission of the graduate studies committee.

The student and each field supervisor will agree as soon as possible on a general readings list of approximately 45 books (or the equivalent) in each field. Reading list copies must be submitted to the chair of the graduate program committee by the beginning of the second semester. The graduate program committee approves these lists and places them in the student’s files. Students are expected to cover the material on these lists, preferably by means of a structured reading and writing program with their supervisors.

The comprehensive examinations, based on the reading lists, are offered twice a year in the first half of the fall and spring semesters. Written exams are administered in weeks five and six. Oral exams are scheduled in weeks six through seven of the same semester. Students who miss the first round of examinations in their fourth semester due to extenuating circumstances must take the exams the following semester. For details on the nature of the comprehensive examinations, see the Department of History’s graduate brochure. All written examinations must be passed before the oral comprehensive exam takes place. A student who fails one of the written examinations, and one only, will have one additional chance for re-examination before sitting the oral examination. A ‘fail,’ ‘pass,’ or ‘pass with distinction’ will be assigned by the examining committee after completion of the oral exam. Students failing at this stage are not allowed to continue in the program.

PhD Fields
Canadian social and cultural history
Canadian political and economic history
Early modern European history
European social history
European cultural history
European intellectual history
European international relations since the early 19th century
gender and history
medieval Europe
France since 1789
Germany since the 18th century
Russia since Peter the Great
the British Isles since 1485
Great Britain as a great power since 1763
state and society in the nineteenth century
Ottoman empire
state and society in the twentieth century
Middle East
the Middle East in the international system
the geopolitics of the Indian empire
Islamic India
sub-Saharan Africa since 1800
European settlement in Africa
United States to 1890
United States since 1890
United States cultural history 1830-1890
colonial Latin America
Latin America since Independence

Thesis
Within one semester of successful completion of comprehensive exams and formal candidacy admission, students submit a thesis prospectus on a topic selected from the specialization areas listed above. The same procedure is followed for MA candidates but the thesis committee may seek the participation of another who has particular expertise in the area of the proposed thesis topic. Through the thesis, the student must demonstrate an original contribution to knowledge. When the thesis is complete and the student is ready to offer himself/herself for the degree, a thesis examining committee will be formed, composed of the chair of the departmental graduate program committee or designee; the student’s supervisory committee; a member of faculty or a person otherwise suitably qualified who is not a member of the supervisory committee; and an external examiner who is not a University employee. This committee examines the student on the thesis and in the student’s major field of study. See “Graduate General Regulations” on page 245 for further information and regulations.

Language Requirements
Students must demonstrate a reading ability in one language other than English that is acceptable to the supervisory committee. Students proposing to study Canadian history must demonstrate an ability to read French, determined by a time limited examination consisting of the translation of a passage of history in the particular language. A dictionary will be permitted. The Department of French offers courses to help graduate students meet this requirement.
Latin American Studies Program

5053 Academic Quadrangle, 604.291.3518 Tel, 604.291.3799 Fax, www.sfu.ca/las

Director
G. Otero BA (IT Monterrey), MA (Tex), PhD (Wis)

Graduate Program Director
G. Otero BA (IT Monterrey), MA (Tex), PhD (Wis)

Faculty and Areas of Research
See “Latin American Studies Program” on page 180 for a complete list of faculty.

E. Escudero – Latin American cultural issues, women in Latin America, Cuba, language teaching
A. Hira – international political economy, economic policy, integration, industrial policy, energy policy,

Southern Cone

A. Hira – political sociology, social movements, rural sociology, political economy of the world system,

Meso-American topics in semiperal nations, neoliberal globalization and agricultural biotechnology

in Latin America

Associated Faculty
R.E. Boyer* J.A.C. Brohan, Geography
A. Ciria* R. Clapp, Geography
A. Dawson, History
M. Gates, Sociology and Anthropology
J. Garcia*
H. Wittman, Sociology
R. Jamieson, Archaeology
R. Newton*
P. Wagner*

*emeritus

Graduate Program Chair
A.M. Feenberg-Dibon, Diplome d’ Etudes Superieures (Sorbonne), PhD (Calit)

Steering Committee
H. Adam, Emeritus
J.L. Berggren, Mathematics
L. Burton, Humanities
S. Duguid, Humanities
A.M. Feenberg-Dibon, Humanities
M. Fellman, History
H. Gay, History
J. Jones, Engineering
J. Martin, Education
K. Mezei, English
R. Miki, English
G. Poltras, Business Administration
P. Schouls, Emeritus
J. Sturrock, Emeritus

Advisor
J. Koczwarski, 2109 Harbour Centre site, 604.291.5172 Tel, koczwars@sfu.ca

Admission Requirements
Admission is conducted biennially. Applicants must satisfy the Latin American studies graduate program committee that they are well prepared academically to undertake Latin American studies graduate work. See page 245 for additional University requirements. As well as these, the program requires:

- a sample of the candidate’s scholarly work, preferably with a Latin American focus (i.e. an undergraduate paper previously submitted as part of a course requirement)
- a short statement of purpose detailing interests and goals in Latin American studies
- proof of reading and speaking competence in Spanish or Portuguese equivalent to the successful completion of three college level courses (i.e., SPAN 102, 103, 201). At the discretion of the Latin American studies graduate program committee, proof of competence in another language of Latin America and the Caribbean may be accepted in exceptional circumstances.
- if applicable, a resume of previous relevant course work and/or employment will be considered. Background may include specialized training, exposure to interdisciplinary studies of Latin America, and/or first hand field experience.

MA program acceptance is conditional on the availability of a senior supervisor selected only from Latin American studies and/or associated faculty.

Areas of Study
Latin American History and Culture

The historical genesis and transformation of Latin American cultures; ethnicity, race, class, and identity; gender and sexuality; Latin American literature and visual arts; and popular culture.

Latin American Politics and the State
Political regimes, state structures and processes; policy formation and political conflict; political parties, social movements and ideologies; democracy and human rights; global versus local influences in national political processes.

Other Graduate Latin American Content Courses
The following may be acceptable for inclusion in the MA program. Permission may be required from the departments in which these courses are offered and some courses may require prerequisites.

- GEOG 666-4 Geography, Development Theory and Latin America
- HIST 845-5 Latin America to 1825
- HIST 846-5 Latin America since 1825

In addition, more broadly listed courses may be acceptable if focused on Latin America. However, credit is subject to their designation as full content Latin American courses by the Latin American studies graduate program committee. Some are:

- CMNS 845-5 Communication Knowledge Systems and Development
- ECON 855-4 Theories of Economic Development
- GEOG 622-4 Theories and Practices of Development
- POL 839-5 Government and Politics of Developing Countries
- SA 850-5 Advanced Sociological Theory
- SA 870-5 Advanced Anthropological Theory

Special Arrangements
Students seeking admission to a Latin American studies doctoral program may apply under the Special Arrangements provisions of the Graduate General Regulations section 1.3.4 (page 246).

Liberal Studies Program

2100 Harbour Centre site, 604.291.5152/5104 Tel, 604.291.5159 Fax, www.sfu.ca/gls, gisp@sfu.ca

Director
M.D. Fellman AB (Mich), PhD (Northwestern)

Graduate Program Chair
A.M. Feenberg-Dibon, Diplome d’ Etudes Superieures (Sorbonne), PhD (Calit)

Steering Committee
H. Adam, Emeritus
J.L. Berggren, Mathematics
L. Burton, Humanities
S. Duguid, Humanities
A.M. Feenberg-Dibon, Humanities
M. Fellman, History
H. Gay, History
J. Jones, Engineering
J. Martin, Education
K. Mezei, English
R. Miki, English
G. Poltras, Business Administration
P. Schouls, Emeritus
J. Sturrock, Emeritus

Advisor
J. Koczwarski, 2109 Harbour Centre site, 604.291.5172 Tel, koczwars@sfu.ca

This program, which leads to a master of arts, liberal studies, is designed for adults returning to part time study. The program, which is affiliated with the Department of Humanities, is offered at the Harbour Centre site during evening and weekend hours.

In the best tradition of liberal education, the program addresses some of the great works of our intellectual and artistic heritage, studies the perennial concerns that have shaped our culture, and explores contemporary perspectives on traditional ideas and values. The interdisciplinary seminars provide the opportunity for wide reading, careful reflection, and intense discussion. They are taught by SFU faculty chosen for their expertise and teaching excellence, and for their interest in interdisciplinary studies.

Admission
Applicants must satisfy the liberal studies graduate program committee of academic suitability. In addition to the normal graduate admission requirements, applicants must demonstrate readiness through reference letters, written work samples, and normally an interview. Exceptionally, the graduate program committee may recommend admission to those who do not meet normal requirements but who, by reason of prior experience, strong credentials and demonstrated competence, are particularly suited.

Degree Requirements
Students complete six seminar courses and choose one of the three options listed below:

- submit two extended essays for oral examination
- submit one project for oral examination
- submit two extended essays for oral examination

294 Faculty of Arts and Social Sciences – Latin American Studies Program

Graduate

Simon Fraser University 2005 • 2006
complete two additional courses and write a field examination based on material covered in three completed courses.

Two of the six required courses are core (LS 800 and 801) and normally are completed in the first two semesters. The remaining courses may be selected from those offered within the program. Note: students choosing the third option will complete eight courses.

Students may enrol for one or two courses per semester. Exceptionally, and by agreement of the graduate program committee and the department involved, a student may take two graduate courses in other departments toward this degree.

The extended essays are developed from course work papers. The project, which may make significant use of non-written media, will also be developed from course work and will be examined as for the examination of a master's thesis under 1.10.1 of the Graduate General Regulations (page 250). One of the two additional courses (see above) must be LS 898 and the other may be any LS course other than LS 998 or 999. Field examination preparation is on the supervisory committee's advice.

The program, for students seeking educational breadth, emphasizes a community of inquiry and discussion over independent research and entails several special expectations within the graduate study general regulations.

Newly admitted students must attend an introductory short course prior to the beginning of the first core course in the fall semester.

Supervisory committees will be arranged by the graduate program committee chair. By approval of the dean of graduate studies, the supervisory and examination process for the extended essays or project requirement may be modified to emphasize collegial exchange.

Students should expect to participate in out-of-class activities, such as pre-class dinners, that encourage interchange among the participants, and to enhance a sense of intellectual community.

Because the program is designed for individuals having other obligations, and who may for that reason require greater or lesser amounts of time to complete the program, it has been approved for part-time study.

Liberal Studies Courses

LS courses are intensive seminars. Core courses LS 800 and 801 develop a common readings base. The other six seminar courses may vary in approach and content each time they are offered, and will address a central tension in our intellectual lives, trace some of the present. All courses are cross-disciplinary and may draw on faculty from across the University.

Department of Linguistics

9203 Robert C. Brown Hall, 604.291.4725 Tel, 604.291.8569 Fax, www.ling.ca/linguistics

Chair
Z. McRobbie, UDipl, Dipl. PhD (Eötvös Loránd, Budapest), PhD (Manit)

Graduate Program Chair
(to be announced)

Faculty and Areas of Research
See “Department of Linguistics” on page 181 for a complete list of faculty.

J. Alderete – phonology, morphology, and their interaction, computational learning algorithms, optimality theory and Athapaskan linguistics
C. Burgess – accent and fluency perception, speaking rate effects, and second language acquisition research design
D.B. Gerds – syntax
C-H. Han – syntax, semantics, computational linguistics
N. Hedberg – syntax, semantics, pragmatics, cognitive science
T. Heft – computer assisted language learning and computational linguistics
A. Kochetov – phonological markedness universals and their grounding in speech production and perception.
P. McFetridge – computational linguistics
Z. McRobbie – experimental phonetics, phonology, Finno-Ugric linguistics, sociolinguistics
J.D. Mellow – second language acquisition and teaching, First Nations languages
M. Munro – applied linguistics, experimental phonetics, second language acquisition
P. Pappas – modern Greek, medieval Greek, language variation and change, contact linguistics, Indo-European linguistics, Balkan linguistics.
F.J. Pelletier – formal semantics of natural language, philosophy of language and logic, computational semantics
T.A. Perry – phonology, German linguistics, linguistic theory
J.M. Sosa – Hispanic linguistics, dialectology, language methodology, Caribbean area sociolinguistics
M. Taboada – discourse, pragmatics, computational linguistics, system functional linguistics
Y. Wang – phonetics, language acquisition, psycholinguistics, neurolinguistics, cognitive science

Associate Members
For areas of research, refer to the department listed.
M. Boelscher Ignace, First Nations Studies, Sociology and Anthropology
F. Popowich, Computing Science
W. Turnbull, Psychology
J.W. Walls, Humanities

Degrees Offered
The program offers graduate work leading to the degrees of MA and PhD in linguistics.

Applicants are considered by how their proposed programs of study coincide with the research and teaching interests of the department's faculty. Where a student's interests span more than one field of study, a program of course work and supervised research in more than one field may be arranged. Individual programs may also be set up in co-operation with other departments under the special arrangements provisions of the Graduate General Regulations 1.3.4 (page 248).

Time Required for the Program
Although University regulations allow a five year time limit for MA degree completion and eight years for the PhD, (including the MA degree work), an MA student is normally expected to complete the degree in two years; a PhD student in three years after the MA. See “Graduate General Regulations” on page 245.

MA Program

Admission
Students must demonstrate adequate linguistics preparation. It is not possible for those having little or no academic linguistics preparation to gain clear program admission or admission as a qualifying student. See "1.3.5 Admission Under Special Arrangements" on page 246 and "1.3 Admission" on page 245 for general admission requirements.

Areas of Specialization

Credit and Research Requirements

Course Work
Students must complete at least 20 credit hours of graduate course work in Linguistics, including LING 800 and 801.

Thesis
All students must complete an MA thesis based on original research, and must comply with University regulations on completing and defending the thesis.

Language Requirements
Candidates must show a high competence in at least one language other than English.

PhD Program

Admission
Students must demonstrate a substantial linguistics background. Direct PhD program admission without an MA in linguistics, or equivalent is normally not possible. For general admission requirements, see "1.3 Admission" on page 245.

Areas of Specialization

Credit and Research Requirements
These requirements are beyond those of the MA requirements. Students may need to take specified courses from the MA program requirements as a condition of admission to the PhD program.

Course Work
Students complete at least 16 linguistics credit hours (four courses), approved by the supervisory committee. Normally only one course may be a directed research course.

Thesis Proposal
Each candidate must submit a written thesis proposal to the supervisory committee which defines the intended original research and the relationship between it and existing scholarship. After submission, the student presents the proposal at a departmental colloquium no later than the end of the ninth residence semester. The written proposal must be approved by the supervisory committee prior to the start of substantive research.

PhD Thesis
Students must complete the thesis in accordance with regulations.

Language Requirements
Candidates must show a high degree of competence in two languages besides English with some knowledge of the structure of at least one non-Indo-European language. The supervisory committee determines how the student demonstrates this competence.
Graduate Program Chair

P. P. Hanson BA (Calg), MA, PhD (Prin)

4604 Diamond Building, 604.291.3343 Tel, 604.291.4443 Fax, www.sfu.ca/philosophy

Chair

P. Hanson BA (Calg), MA, PhD (Prin)

Graduate Program Chair

R. E. Jennings BA, MA (Qu), PhD (Lond)

Faculty and Areas of Research

See “Department of Philosophy” on page 185 for a complete list of faculty.

K. Akins – philosophy of mind, philosophy of perception, philosophy of the cognitive sciences

S. Black – social and political philosophy, ethics, history of 17th century philosophy

M. Hahn – philosophy of mind, philosophy of language, history of early analytic and continental philosophy

P. P. Hanson – epistemology, philosophy of language, philosophy of science, philosophy of mathematics, philosophy of mind

P. T. Horban – philosophy of religion

R. E. Jennings – modal logic, conditional logic, philosophy of language

K. Laird – philosophy of mind, metaphysics

J. S. McIntosh – philosophy of mind, philosophy of science, metaphysics

F. J. Pelletier – philosophy of language, philosophy and linguistics, cognitive science, automated theorem proving, formal semantics, modern philosophical analysis, philosophy of logic, artificial intelligence, computational semantics

O. Schulte – philosophy of science, epistemology, logic, rational choice theory

L. Shapiro – history of modern philosophy, feminism, philosophy of mind, epistemology, philosophy of personal identity

J. H. Tait – metaphysics, history of modern philosophy, history of 19th century German philosophy

E. Tiffany – ethical theory, philosophical psychology, philosophy of mind and language

D. Zimmerman – ethics, social and political philosophy, philosophy of mind, medical ethics

Application Procedures

Please contact the department for an application packet, deadline and other information.

Graduate Courses

In addition to courses offered at SFU, graduate students may also satisfy their course requirements by taking courses offered at the University of British Columbia, after consultation with their supervisor.

Graduate Course Disciplines

The department’s graduate courses are divided into the following disciplines.

Metaphysics and Epistemology

PHIL 802, 803, 804, 805, 806

Logic and Formal Studies

PHIL 812, 813, 814, 815

Value Theory

PHIL 822, 823, 824, 825, 826

History

PHIL 852, 853, 854, 855

Directed Studies

PHIL 861, 862, 863, 864, 865, 898, 899, 998-0

MA Program

Admission

See “1.3.3 Admission to a Master’s Program” on page 245 for university admission requirements. In addition, the applicant must have either a 3.33 cumulative GPA or a 3.5 GPA in third and fourth year philosophy courses. Honors degrees, where available, are preferred. The department pays close attention to letters of reference and writing samples. A student whose undergraduate work does not satisfy the above conditions may be required to complete additional undergraduate courses as part of the program, or to register as a qualifying student before consideration for admission.

Degree Requirements

These requirements apply to all MA candidates.

• the completion of six courses, one of which may be a 300 or 400 level undergraduate course, provided a grade of A- or better is achieved in it and permission of the graduate studies committee is granted.

• demonstrated competence in such foreign languages as the graduate studies committee requires for the proposed research.

• demonstrated competence in formal logic at the level of PHIL 210, or higher when relevant to his or her research.

There are three ways to complete a Master’s degree in the Department of Philosophy:

Non-Thesis Option

This is the recommended degree for most students applying for Philosophy PhD program admission after completing an MA. The program broadens and deepens philosophical education and allows the student to develop the necessary materials for a successful PhD program application. The non-thesis option has the following specific requirements.

Distribution Requirements

The candidate completes at least one course in each area of philosophy: value theory; metaphysics and epistemology; history of philosophy. Taken together with upper division undergraduate courses taken previously or in addition to the MA requirement, a total of three courses in each area are required.

Extra Course Work

There is one additional course required.

Cumulative Grade Point Average

A CGPA of 3.5 is required.

PHIL 899

In this course, that is completed under the direction of the senior supervisor, a paper from a previously completed graduate course is revised to a standard suitable in form and content for submission to a professional journal. The resulting paper normally shall not exceed 30 pages.

Final Examination

The student will present the paper in a public forum directed by the supervisory committee and at least one other faculty member in the field. After the public presentation and discussion, the expanded committee will evaluate the paper and the student’s performance at the examination.

Specialized Thesis Option

This option is intended for those who have a particular project and supervisor in mind when they enter the program, and especially those with interdisciplinary interests. It has the following specific requirements:

• The student normally enters the program with a well-defined project and a permanent (as opposed to interim) senior supervisor.

• The program and a course of study is approved by the graduate studies committee.

• Up to three of the required courses may be from outside the Department of Philosophy.

• A thesis, normally no more than 100 pages in length, giving evidence of independent critical ability is submitted and successfully defended.

• The specialization is noted on the student’s final transcript under Committee Decisions.
Fields of Study

The major fields of study are

- Canadian government and politics
- Comparative government and politics
- International relations

Within these three major fields of study there are three distinct thematic emphases of: public policy, political economy and governance.

Admission

For general requirements see "1.3. Admission" on page 245. In addition, the department requires written statements of the student's current interests and proposed areas of research. Applications for graduate work will be considered with reference to the manner in which the proposed area of the candidate's research coincides with faculty teaching and research interests. See the list of faculty for general research interests. Should additional course work be deemed necessary, the graduate studies committee will indicate the same as a prerequisite.

Degree Requirements

MA Program

The program may be completed through an essay or project option, or a thesis option, or a field exam option. Students are admitted to the essay or project option and require approval of the graduate program chair to transfer to another stream. Except in extenuating circumstances, students may only transfer once during the MA program.

In accordance with Graduate General Regulation 1.6.4 each student will be assigned a supervisory committee.

The essay or project option requires completion of either extended essays in two fields of study offered by the department or one research project. Students in the essay or project option complete five courses: POL 801 or 802 plus four additional courses from at least two of the department's three fields of study. A research project, to a maximum of 12,500 words (plus bibliography), must have substantial original content. Each extended essay is expected to elaborate upon course work research and is not to exceed 12,500 words (plus bibliography). Extended essays and research projects are defended in an oral defence.

To be admitted to the thesis stream, students must submit to the thesis supervisory committee a thesis proposal outlining a brief topical summary, its relevance, the methodology to be followed in the investigation, and a chapter-by-chapter outline, a timetable for thesis completion and a select bibliography. The thesis proposal must be approved by the thesis supervisory committee.

Students in the thesis stream complete four courses: POL 801 or 802 plus four additional courses from at least two of the three fields of study offered by the department. Students also must write a thesis, normally 18,750 to 25,000 words in length (plus bibliography) and defend it in an oral defence.

PhD Program

The department offers specialized research resources in Canadian government and politics, comparative politics, and international relations with a thematic focus on issues of political economy, public policy and governance. However, the department may offer advanced study in other political science fields, subject to the availability of faculty research expertise.

Admission

In addition to the minimum admission requirements (page 245 of the Graduate General Regulations 1.3.8), a completed political science MA is required, normally with a minimum 3.67 GPA. A written statement of current research interests, three reference letters from qualified referees, and a sample of written work are also required. How well the applicant's proposed research coincides with the department's focus on political economy, public policy and governance is an important consideration. Background deficiencies must be met by taking appropriate courses in addition to normal PhD work.

Admission applications are reviewed once a year by the department graduate studies committee. The program starts in September.

Supervisory Committee

In accordance with Graduate General Regulation 1.6.4, upon program admission, the departmental graduate studies committee assigns a senior supervisor.

Program Requirements

The PhD program consists of 20 credit hours of graduate work beyond the requirements of the MA plus a second language requirement, two comprehensive exams and a thesis.

Course Work

Students successfully complete 20 credit hours of graduate work. All courses are approved by the supervisory committee and reflect areas of specialization within the fields of political economy, public policy and governance as identified in the student's letter of intent. Students complete POL 801 or 802 or equivalent. All courses must be completed prior to completion of any other program component.

Language Requirement

Students must demonstrate a reading ability in a language other than English that is acceptable to the supervisory committee. Those study subjects related to Canadian politics must demonstrate an ability to read French, determined by successful completion of a time limited exam consisting of a dictionary aided translation of a legal science literature passage written in the language selected.

Comprehensive Examinations

Upon course work completion and prior to thesis research, students successfully complete a comprehensive exam.

Thesis

Candidates successfully completing both comprehensive examinations are required to complete POL 890 which culminates with the student's presentation as a seminar to the department outlining his/her draft research proposal. After the seminar, and in consultation with his/her supervisory committee, the candidate will prepare a final proposal for graduate studies committee approval. This proposal must receive the approval of the student's supervisory committee prior to being forwarded to the graduate studies committee. The research proposal will state the thesis title, topic, general intent, methodology and bibliography and will be accompanied by a detailed research plan and timetable for the completion of each thesis chapter. The thesis proposal normally should not exceed 2000 words in length, excluding bibliographic references.
The thesis should not be more than 300 pages and must represent an original contribution to the development of the discipline. The completed thesis must be successfully defended at an oral defence established in accordance with the Graduate General Regulations 1.9 (page 249) and 1.10 (page 250).

**Performance Evaluation**
In accordance with Graduate General Regulation 1.8 (page 249) the student’s progress is reviewed periodically by the graduate studies committee. At least once a year, the supervisory committee submits a written report on the student’s progress to the graduate studies committee to aid its deliberations. Students judged to have maintained unsatisfactory progress may be asked to withdraw from the program.

**Time Limits**
Although Graduate General Regulation 1.1.2 (page 251) establishes an eight year time limit for PhD completion, the department expects the PhD program will be completed within four to five years.

### Department of Psychology

#### 5246 Robert C. Brown Hall, 604.291.3354 Tel, 604.291.3427 Fax, www.sfu.ca/psychology

**Chair**
D.J. Weeks BA (Windsor), MSc (McM), PhD (Auburn)

**Graduate Program Chair**
N.V. Watson BA, MA (Wntnt), PhD (Br Col)

**Faculty and Areas of Research**

See “Department of Psychology” on page 189 for a complete list of faculty.

- K. Bartholomew – adult attachment, abuse in intimate relationships, male same-sex relationships
- B.L. Beyerstein – drugs and behavior, brain and behavior, sensation (olfaction), critical appraisal of occult and pseudo-scientific claims
- J. Carpenteau – social cognitive development, moral development and cognitive development
- R. Cobb – role of social support and attachment in the development of marriage, prevention of marital distress and dissolution, the effects of the marital context on child development, dating relationships
- D. Connolly – psychology and law, children and the law, children’s autobiographical memory, eyewitness memory
- D.N. Cox – behavior therapy, health psychology, sport psychology, psychology and law
- K. Douglas – violence, risk assessment and management, mental disorder and violence, forensic assessment, law and psychology
- R.T. Foulad – multivariate statistics, statistical modeling, measurement
- S.D. Hart – psychology and law, psychotherapy, mentally disordered offenders, violence, child assault, psychological assessment, personality disorder
- G. Iarocci – developmental psychopathology, autism, development of visual attention and perception, risk and protective factors and cultural influence in the development of first nations children
- W.R. Krane – multivariate statistics, psychological scaling, psychometrics
- D.L. Krueb – evolution of morality and self-deception
- R.G. Ley – forensic psychology (criminal and civil), trauma and PTSD adolescent psychopathology and delinquency, psychodynamic psychotherapy
- M. Lioi – neuroscience of emotion in health and disease, normal and abnormal development of executive control functions, brain functional reorganization in neuropsychiatric disorders
- M.D. Maran – psychometrics and philosophy of science
- J.J. McDonald – cognitive neuroscience, human electrophysiology, event-related potentials, attention and cross-modal processing
- C.G. McFarland – social cognition, autobiographical memory, moral judgment, social and temporal comparison processes
- R. Mistbberger – behavioral neuroscience, biological clocks and sleep, shift work
- M.M. Moretti – self, attachment and psychopathology; developmental psychopathology particularly conduct disorder, aggression and violence in girls; systemic intervention; program development and evaluation
- J.D. Read – memory in forensic contexts, applied cognition, recovered memory debate and memory impairments, autobiographical memory and eyewitness testimony
- R.M. Roesch – psychology and law, including forensic assessment, jail mental health, and competency to stand trial
- B.W. Soló – development of children’s thinking, social-cognition, moral development, adolescent identity development, history and systems, culture and cognition
- T.M. Spalek – visual attention; cognition; memory; word recognition; controlled vs. automatic processing
- A.E. Thornton – adult clinical neuropsychology, neurocognitive models of memory and executive functions, encoding and retrieval processes in cognitively impaired patients
- W.L. Thornton – neuropsychology of normal and pathological aging, adult neuropsychological assessment, visuospatial attention, decision-making
- I. Torres – clinical neuropsychology cognitive deficits, and structural brain changes in schizophrenia and severe mental disorders, neuropsychology of mental illness
- W. Turnbull – social pragmatics, conversation analysis, social/cognitive development
- N.V. Watson – sexual differentiation of the nervous system, hormones and behaviour, neurolplasticity, psychopharmacology, sex differences in humans and non-human animals
- D.J. Weeks – attention, perceptual-motor behavior, stimulus-response translation, cerebral specialization in Down syndrome, human-machine interaction
- B.W.A. Whittelsey – cognition, memory, perception, concept formation, attention
- R.D. Wright – visual attention; cognitive neuroscience
- S.C. Wright – Intergroup relations/social identity; responses to discrimination and collective action; prejudice and prejudice reduction; minority language education
- A. Young – child psychopathology, anxiety, learning disabilities

**Associate Members**

For areas of research, refer to the department listed.

- R.R. Corrado, Criminology
- A. Horvath, Education
- M. Jackson, Criminology
- J. Martin, Education
- N. O’Rourke, Gerontology
- F.J. Pelletier, Philosophy
- J. Sugarman, Education

### Overview of Graduate Training

The department offers graduate programs culminating in MA and PhD degrees in either experimental or clinical psychology. The department is organized around five areas of concentration: cognitive and biological psychology, development psychology, law and forensic psychology, social psychology, and theory and methods. All graduate students work on research projects within one of these general research areas. In the experimental program, training is research-intensive and intended to produce PhD level researchers. The clinical PhD program offers area specializations in child clinical, forensic clinical, and clinical neuropsychology. Area specializations are notated on transcripts.

**Application and Admission Requirements**

Applicants, admitted only in the fall semester, must submit all supporting documentation in one complete package (completed application form, statement of purpose, two copies of official transcripts of all post secondary course work, three academic reference letters, and the GSS application fee). Graduate Record Examinations (general sections) and TOEFL scores can be submitted separately. Experimental program applicants submit GRE general sections only. Clinical program applicants submit both GRE general sections and the GRE subject test in psychology. Incomplete application packages will not be accepted. The department reserves the right to admit only those for whom research space and appropriate faculty supervisors are available.

**Application as Special Student**

Admission requirements for special students are outlined in the Graduate General Regulations (see “1.3.5 Admission Under Special Arrangements” on page 246). Special student applications must be submitted to the department’s graduate program assistant. Students seeking admission as a special student must obtain written permission from the instructor of each course they wish to take, and submit it, along with transcripts of previous university work, no later than ONE month prior to the semester in which they plan to undertake the proposed course of study. Special students taking psychology graduate courses must obtain a minimum B- grade in each course taken in order to be admitted as a special student in subsequent semesters.

**Satisfactory Performance**

The progress of each student is assessed at least once a year. A course grade of less than B is considered unsatisfactory. Any student who obtains a grade of less than B in two or more courses may be required to withdraw from the program.

**MA Thesis**

Students are required to present a written thesis proposal to their supervisory committee before the end of their fourth semester in the program. After the thesis has been submitted, an oral defence will be scheduled. Students are expected to have completed their MA thesis by the end of their second year in the program. For further information and regulations, see “Graduate General Regulations” on page 245.

**PhD Dissertation**

Before starting dissertation research, the candidate presents a formal evaluation proposal. The candidate must present a dissertation proposal before the end of the third program year, and is expected to complete the PhD dissertation within four years of program entrance. The completed dissertation will be defended in oral examination. Judgment will be made by an examining committee. For further information, see “Graduate General Regulations” on page 245.

**Supervisory Committees**

For the MA thesis, students establish a supervisory committee before the end of their first semester. The MA supervisory committee will consist of at least two Department of Psychology faculty, one of whom will be the senior supervisor and committee chair. Other faculty outside the department who are considered necessary by the student and senior supervisor may serve on the committee. The PhD supervisory committee should be established by the end of the first semester following program admission. All students choose a Department of Psychology faculty member
as the senior supervisor and chair of the PhD supervisory committee and two or more additional members; at least one of the additional members must be from the Department of Psychology. One member must act as advisor to measurement and design aspects of the dissertation research.

Program in Experimental Psychology

This program provides specialized training in: cognitive and biological psychology, developmental psychology, law and forensic psychology, social psychology, and theory and methods.

Degree Requirements

Students admitted to the MA program must achieve satisfactory performance in PSYC 824, 910, 911, two breadth courses, and a minimum of two area courses, and must complete an MA thesis (PSYC 898). PhD program students must complete a minimum of two area courses, comprehensive examinations, and a doctoral dissertation. The required courses and comprehensive exams must be completed within two years of PhD program entrance. In addition, students must participate in area research seminars (PSYC 913, 914, 916, 917 or 918) during their MA and PhD programs and to complete the requirements of their area of specialization.

Experimental Area Requirements

Cognitive and Biological Area

area course 1
area course 2
area course 3
area course 4
Additional Requirements
PSYC 913-1.5 Research Seminar
area courses are determined for each student individually and may include courses both from within and outside the department.

Developmental Area

PSYC 750-5 Proseminar in Developmental Psychology (area course 1)
PSYC 850-5 Seminar in Developmental Psychology (area course 2)
PSYC 944-5 Seminar in Psychopathology (area course 3)
PSYC 950-5 Seminar in Developmental Psychology (II) (area course 4)
Additional Requirements
PSYC 950-5 Seminar in Developmental Psychology (III)*
PSYC 819-3 Ethics and Professional Issues
PSYC 914-1.5 Research Seminar

As well, students must complete an additional PSYC 950 in each year past year four.

Law and Forensic Psychology Area

Social Area

PSYC 760-5 Proseminar in Social Psychology (I) (area course 1)
PSYC 760-5 Proseminar in Social Psychology (II) (area course 2)
PSYC 960-5 Seminar in Social Psychology (I) (area course 3)
PSYC 960-5 Seminar in Social Psychology (II) (area course 4)
Additional Requirement
PSYC 819-3 Ethics and Professional Issues
PSYC 917-1.5 Research Seminar

As well, students must complete an additional PSYC 960 in each year past year four.

Theory and Methods Area

area course 1
area course 2
area course 3
area course 4
Additional Requirement
PSYC 918-1.5 Research Seminar

area courses are determined for each student individually and may include courses both from within and outside the department.

Degree Requirements

MA students must complete satisfactorily: PSYC 744, 770, 820/821, 822/823, 824, 880 (Practicum), 910, 911, 898 and two area courses. PhD students must complete a minimum of one breadth course, two area courses, PSYC 819, 886 and 899. At least two courses must be advanced topics courses in assessment or intervention (PSYC 806 or 807).

Students will not be permitted to register in PhD course work beyond the seventh semester in the program, until the MA thesis is complete, or they receive joint approval from their senior supervisor and the clinical program director.

Students are required to enroll in PSYC 825 (ongoing clinical training) every semester prior to internship (PSYC 886) except when formally exempt. In addition, students must participate in area research seminars (PSYC 913, 914, 916, 917 or 918) during their MA and PhD programs and to complete their area of specialization requirements.

Students must successfully defend their dissertation proposals before applying for internship.

Clinical Specialization Requirements

Developmental Area: Child Clinical Stream

PSYC 750-5 Proseminar in Developmental Psychology (area course 1)
PSYC 830/831-3/2 Practicum in Child Evaluation and Treatment Formulation (area course 2)
PSYC 944-5 Seminar in Psychopathology (area course 3)
PSYC 807-5 Advanced Topics in Intervention (Child Therapy) (area course 4)

Additional Requirements
PSYC 807-5 Advanced Topics in Intervention (Systemic Therapy)
PSYC 914-1.5 Research Seminar

Law and Forensic Psychology Area: Clinical Forensic Stream

PSYC 790-3 Proseminar in Law and Psychology (area course 1)
PSYC 815-3 Mental Health Law and Policy (area course 2)
PSYC 835-3 Special Topics in Civil Forensic Psychology (area course 3)
PSYC 836-3 Special Topics in Criminal Forensic Psychology (area course 4)

Additional Requirements
PSYC 897-3 Research Project in Law and Psychology/Forensic Psychology
PSYC 890-3 Practicum in Clinical Forensic Psychology
PSYC 916-1.5 Research Seminar

Cognitive and Biological Area: Clinical Neuropsychology Stream

PSYC 806-3 Advanced Topics in Assessment
PSYC 880-3 Practicum
PSYC 960-3 Seminar in Biological Psychology*
UBC Neuroanatomy 516
when offered as both cognitive neuroscience, and neurocognitive disorders

SFU/UBC Program in Law and Forensic Psychology

The Simon Fraser University/University of British Columbia (SFU/UBC) Program in Law and Forensic Psychology offers student sin forensic psychology the option of completing both a PhD and an LLB degree. Student sin the LLB/PhD stream specialize in either experimental psychology and law or clinical forensic psychology. The program is operated co-operatively between Simon Fraser University and the University of British Columbia and provides opportunities for students to be on leave from one program while completing requirements in the other. Several courses are eligible for credit in both degree programs.

All regular MA and PhD requirements of the SFU graduate studies faculties and psychology department must be met. Students admitted to the LLB/PhD stream complete the requirements for both an LLB in law and a PhD in law and forensic psychology. For application and admission information refer to Department of Psychology “Application and Admission Requirements”. Clinical forensic stream admission is approved by the clinical program to which the student has applied. Applicants seeking the LLB degree must also seek admission from and be deemed acceptable by the Faculty of Law at UBC.

The PhD is awarded by Simon Fraser University Faculty of Arts and Social Sciences, and the LLB is awarded by UBC’s Faculty of Law. Students must satisfy all requirements for both the PhD and LLB degrees.

Program continuance is conditional upon a high performance standard as determined by an annual
review of students. A student is permitted to complete either an LLB, MA, or PhD alone.

SFU Program Faculty

J. Don Read, PhD – Professor of Psychology
Deborah Connolly, LLB, PhD – Assistant Professor of Psychology
Kevin Douglas, LLB, PhD – Assistant Professor of Psychology
Stephen Hard, PhD – Professor of Psychology
Ronald Roesch, PhD – Professor of Psychology

Public Policy Program

3271 Harbour Centre site, 604.291.5289 Tel, 604.291.5288 Fax, www.sfu.ca/mpp, mpp@sfu.ca

Director
N.D. Olewiler BA (Col), MA (S Fraser), PhD (Br Col)

Senior Policy Fellow
D. McArthur BSc (Sask), MA (Tor), MA (Oxf)

Professors
J. Kessnerman BA (Oberlin), PhD (MIT), Canada Research Chair
J.G. Richards BA (Sask), BA (Camb), MA, PhD (Wash, Mo)

Associate Professor
D. Gross Licence en Sciences Economique (U de Lausanne), MA (Carli), PhD (Tor)

Assistant Professor
E.C. Stewart BA (Acadia), MA (S Fraser), PhD (LSE)

Steering Committee
L. Dobuzinskis, Political Science
I. Geva-May, Education
M. Howlett, Political Science
D. McArthur, Public Policy
C.A. Murray, Communication
N.D. Olewiler, Economics
J.G. Richards, Business Administration
K.G. Stewart, Public Policy
A.R. Vining, Business Administration

This program offers the skills, insights and analytical frameworks that public sector and non-profit policy analysts and managers need to prepare for their careers. It focuses on the political and economic contexts of public policy analysis and offers specialized study in many policy areas. Designed to develop the strategic and global perspective required of tomorrow’s senior policy analysts and managers, the program uses a cohort model. Students take courses in the same sequence which encourages student interaction and co-operation. An individual research project undertaken in MPP 808 and 809 (advanced policy analysis) is an integral part.

Master’s Program

This full-time two year cohort program, leading to a master of public policy (MPP), consists of fourteen courses plus a summer co-op/internship. Courses are sequenced through the fall and spring semesters. The maximum course load is four courses per semester.

Admission Requirements

To be considered for admission, applicants must have a bachelor’s degree from a recognized university. Those admitted with other credentials, or those with degrees who, in the judgement of the program director are without adequate foundation in the social sciences, may be required to make up any deficiency without receiving graduate credit for those courses. Students are normally admitted in September. It is expected that approximately 25 students will be directly admitted in any one year.

The normal minimum undergraduate GPA required for admission is 3.0 (or equivalent), although the admissions committee and program director may take relevant work experience into account in determining eligibility for program admission.

Criteria for admission, in addition to undergraduate grades, include strong letters of reference, an essay, and for students whose native language is not English, acceptable TOEFL scores (570 minimum) and a score of 5 or above on the Test of Written English. Students with non-Canadian undergraduate or graduate degrees are required to take the Graduate Record Exam (GRE).

Application Requirements

The following application documentation is required.

• a Simon Fraser University graduate application form, which is available from the Public Policy Program office or can be downloaded from www.sfu.ca/mpp

• the applicant’s official undergraduate transcript showing all grades (mailed directly from the granting institution)

• three confidential letters of reference (mailed directly from referees), at least two of which are from university faculty members. This requirement may be waived for mid-career applicants with professional experience. In this case, letters from employers may be used. Reference forms are available from the office or from www.sfu.ca/mpp

• a one-page essay that explains why the applicant wishes to pursue the MPP degree

• a student whose first language is not English and whose undergraduate degrees were from institutions where English is not the language of instruction are required to take TOEFL and Test of Written English scores

GRE score for non-Canadian degree applicants

Program Requirements

The candidate must complete a total of ten core MPP courses, a summer co-op/internship, plus four additional elective courses that must be approved by the Public Policy Program director.

Year One

Students complete the following eight core courses.

MPP 800-5 Introduction to Public Policy Issues
MPP 802-5 Economic Foundations of Policy Analysis I
MPP 803-5 Political Foundations of Policy Analysis I
MPP 804-5 Political Foundations of Policy Analysis II
MPP 805-5 Research Techniques and Quantitative Methods I
MPP 806-5 Research Techniques and Quantitative Methods II
MPP 807-5 Introduction to Policy Analysis

In the summer semester, the co-op/internship course MPP 850 is completed.

Year Two

Students complete the following two core courses.

MPP 808-5 Advanced Policy Analysis I
MPP 809-5 Advanced Policy Analysis II

In addition, four elective courses are required. The program director, in consultation with the student, selects appropriate graduate courses that are offered by affiliated programs and departments. To satisfy these elective requirements, and when appropriate, students may choose from the following MPP courses.

MPP 810-5 Issues in Public Policy I
MPP 811-5 Issues in Public Policy II
MPP 812-5 Selected Topics in Public Policy I
MPP 813-5 Selected Topics in Public Policy II
MPP 825-5 MPP Directed Readings I
MPP 826-5 MPP Directed Readings II

Graduate Program

Publishing Program


Director
R.M. Lorimer BA, MA (Manit), PhD (Tor)

Professor
R.M. Lorimer BA, MA (Manit), PhD (Tor) – publishing policy

Instructor
G. Maxwell BA (Br Col), MPub (S Fraser)

Senior Lecturer
R. Woodward BA (Miami, Ohio), MA (Oregon) – design and production

Associate Members
A.C.M. Beale, Communication – history of communication
R.M. Coe, English – rhetoric and composition
A. Cowan, Continuing Studies – publishing education, editing and production
L. Copeland – Library
C. Gerson, English – history of Canadian publishing
M.A. Gillies, English – Victorian publishing
M. Jordan – Library
G.A. Mauser, Business Administration – marketing
B. Owen BA (S Fraser), MA (Br Col)

R. Smith, Communication – information technology

Adjunct Professors
J. Kesselman BA (Oberlin), PhD (MIT), Canada Research Chair
S. Osborne, BA (Br Col) – economics, marketing consultant
R. Bringhurst, BA (Indiana), MFA (Br Col) – Author
J.J. Douglas, LLB (S Fraser) – retired publisher, Douglas and McIntyre
N. Flight, BA (Denison), MA (Bryn Mawr)
D. Gibson, MA (Andrews), MA (Yale) – publisher
McClelland and Stewart
C. Good, BA, MA (Tor) – publisher, Penguin Canada
R. Hancox, Dip (Regent St. Polytechnic, London), PhD, Neiman Fellow (Harv), Professional Fellow
A. MacDonald – president, Raincoast Books
P. Milroy, BA (Ont) – publisher, Canadian Medical Association
S. Osborne, BA (Br Col) – publisher, Geist Magazine
K. Siegel, BA, MA (S Fraser) – publisher, Talon Books
M. Sosteric, BA, MA (Regina), PhD (Alta) – assistant professor, Athabasca University
P. Whitney, BA (Sask), MLS (Br Col) – chief librarian, Burnaby Public Library
J. Willinsky BA (Laurentian), MEd (Tor) PhD (Dal)

Advisor
Ms. J Ray BA (S Fraser), 3576 Harbour Centre site, 515 West Hastings Street, Vancouver, BC, V6B 5K3, 604.291.5242, jray@sfu.ca

This program leads to a master of publishing degree (MPub) and is designed for those in, or intending to enter, the publishing industry. It is composed of a set of courses, an internship, and a project report, and encompasses a range of publishing activities including business, design, editing and multimedia.

Admission Requirements

The normal admission requirement is a bachelor’s degree with a minimum 3.0 grade point average from a recognized university or the equivalent. In addition, applicants will be required to

• have some demonstrated familiarity with the publishing industry
• be familiar with the operation of both Apple and IBM compatible microcomputers
• demonstrate a suitable level of competence in editing and proofreading
• be familiar with the major concepts of marketing and accounting
• demonstrate a suitable level of competence in English composition

Entering students are expected to have a minimum knowledge of publishing which will be assessed through an evaluation of documents and experience, and in some cases, interviews and examinations. Students who are found to have not met the knowledge, understanding and skills necessary, they may gain those skills by successfully completing the following courses or their equivalents.

BUS 251-3 Financial Accounting I
BUS 254-3 Managerial Accounting I
BUS 343-3 Introduction to Marketing
CMNS 371-4 The Structure of the Publishing Industry
CMNS 372-4 The Publishing Process

The following courses are valuable background as a foundation for editing.

ENGL 370-4 Studies in Language
ENGL 375-4 History and Principles of Rhetoric

Degree Requirements

Course Work

Students complete 33 credit hours in addition to an internship and project report. The curriculum is composed of courses offered exclusively within the program. The director may recommend that some students substitute courses from SFU or other institutions, and/or experience and demonstrated expertise for program courses.

Internship and Project Report

A key component is an internship and project which integrates the knowledge the student has gained with the demands of an applied setting. This internship is in the workplace, typically in industry, public institutions or government. An appropriate level of documentation and reporting is required. During the Internship, which generally lasts four months, the student is supervised by academic supervision as required from the student’s supervisor. Day-to-day supervision is by designated industry supervisors who have appropriate qualifications and will be appointed by the University. In very small companies, alternate arrangements may be made.

The internship will focus on a specific student initiated project, by one or more members of the student’s supervisory committee or by the industry supervisor’s employer. The student submits an outline that defines the project scope, plans for documentation and reporting, anticipated activities, schedule and conclusion. The outline is approved by the supervisory committee and the program director. Commitment of the company or institution, the industry supervisor and the University will be formalized by a letter exchange.

The student produces two reports; a work report which is an appraisal of the student’s work, and a project report which will be an investigation and analysis of a particular problem or case. The latter serves as a project record and interpretation.

The supervisory committee and director assess the project on the conduct of the project, work and report quality. There is no oral exam. However, a project report will be submitted (see 1.10.6 on page 250).

Faculty and Areas of Research
See “Department of Sociology and Anthropology” on page 190 for a complete list of faculty.

Y. Atasoy — political economy, globalization, political sociology, development studies, gender relations, cultural politics, Islamic politics, Turkey, Middle East
M. Boelcher Ignace — practice theory, language and culture, Aboriginal resource management, Aboriginal peoples of Northwestern North America
J. Bogardus — critical anthropology/sociology, sociology of knowledge, contemporary ethnography, critical pedagogy
D. Culhane — critical anthropology, anthropology of law and health, contemporary ethnography, visual anthropology
F. DeMaio — medical sociology (social determinants of health), poverty and income inequality, quantitative methods, Latin America (Argentina)
P. Dossa — migration, gender and health, critical feminist anthropology, medical anthropology, aging and health policy, policies of disablement, Muslim women
N. Dyck — anthropology of sport and childhood, immigration and nationality
K. Froschauer — new Canadian political economy, natural resource development, immigration entrepreneurship
M. Gates — development studies, agricultural policy and practice, environmental and urban anthropology, NAFTA, Latin America, Mexico
M. Howard — material culture (especially textiles), development studies, ethnicity, natural resources management, Southwest Pacific, Southeast Asia
M. Kenny — anthropology and medicine, anthropology and psychiatry, the politics of memory, religion and society, 19th century American social history, history of eugenics
D. Lacombe — contemporary social theory, sexuality and moral panic, deviance and social problems
A. McLaren — gender, education, families, social policy, feminist perspectives
B. Mitchell — families and aging, youth transitions into adulthood, intergenerational relations, quantitative methods, health promotion
G. Otero — political sociology; social movements, rural sociology; political economy of the world system; state-society relations in semiperipheral nations; neoliberal globalization and agricultural biotechnology in Latin America
C. K. Patton — social study of medicine, especially social aspects of AIDS and wilderness medicine, continental theory, research design, especially mixed methods
S. Pigg — medicine, science and transnational processes; biocentric modernity; AIDS; sexuality; reproductive health; discourses, ideologies and practices of international development
J. Pulkingham — social policy, gender and inequality; income security and labor market policy; welfare state restructuring and inequality with a focus on income assistance/welfare, housing and health; feminism and political economy; family law
G.B. Teeple — political economy of Canada, Hegelian and Marxist philosophy, sociology of art, neoliberalism and the global division of labor, the nature of human rights
A. Travers — sociological theory (feminist and queer), gender and technology, sociology of sport, social issues and movements
J.M. Whitworth — sociology theory in the European tradition, sociology of religion
H. Wittman — environmental sociology, community resource management, social movements, agrarian reform and sustainable agriculture in Brazil and Guatemala

Admission

Programs of advanced learning and research leading to MA and PhD degrees are offered. The MA program is available on a part time and a full time basis. See “1.3 Admission” on page 245 for general requirements. The department also requires a written statement about current interests and prospective research. How well the applicant’s proposed research coincides with the research and teaching interests of the faculty is an important admission consideration. PhD applicants must submit a work sample from earlier or ongoing graduate studies.

Admission applications are normally considered once each year at the end of January. The program commences in September. Contact the graduate program chair or secretary for further information.

Areas of Study

• anthropology and sociology of medicine, health and society (particularly politics of knowledge production, disability, mental health, AIDS)
• Canadian society (ethnic relations, demographic issues, social inequality, political economy)
• critical pedagogy
• development studies (especially the Third World, including studies of tourism and international health)
• environmental issues
• minority indigenous peoples (particularly Canadian Native peoples)
• political sociology (with emphasis on political economy, ethnic relations and social movements)
• social and cultural anthropology (with emphasis on the anthropology of contemporary life)
• social policy issues (aging, family, gender relations, government administration of native peoples)
• sociological and anthropological studies of law and legal systems
• sociological theory, anthropological theory, and the philosophy of the social sciences (European intellectual history, holistic, comparative, historical and post colonial perspectives)
• sociology of agriculture, and science, technology and society
• sociology of sexuality and moral panic, and social problems and deviance

MA Program Requirements

The MA program may be completed through course work and either an essay or research project option or a thesis option. All students are admitted to the essay or project option and require supervisory committee recommendation and department graduate program committee approval to transfer to the thesis option. Exception: under extenuating circumstances, students may transfer only once in the MA program.

Option 1: Courses and Extended Essays or Research Project Report

The minimum requirements for completion of the degree program include three one-semester courses, and two extended essays or one research project report.

Courses

Students must complete four one-semester courses, two of which must be 850 or 870; and SA 857. The remaining two courses will be chosen from SA 886, SA readings courses, a course in another department or university. (The option of the readings courses and the extra-departmental courses must be approved by the student’s supervisory committee and the departmental graduate program committee. Any student with deficiencies may be asked to complete more courses.)

Extended Essays or Research Project Report

The extended essays or research project option requires the completion of either:

Department of Sociology and Anthropology

5053 Academic Quadrangle, 604.291.3518 Tel, 604.291.5799 Fax, www.sfu.ca/sociology
Chair
J. Pulkingham MA, PhD (Edin)

Simon Fraser University 2005 • 2006
PhD Program Requirements

Students complete four one-semester courses, two of which must be SA 850 or 870 and SA 857. If a doctoral student has completed an MA in the department, course requirements remain the same for all doctoral students, but special arrangements will be made by the department's graduate program committee so that SA 850 or 870 is not repeated. The remaining two courses will be chosen from SA 886, SA readings courses, or a course in another department or university. The option of the readings course and the extra-departmental course must be approved by the supervisory committee and the department graduate program committee. Students with deficiencies may be asked to complete more courses.

Thesis

The thesis option focuses on high quality research study. The thesis will normally consist of no more than 75-100 pages, inclusive of bibliographies, appendices and tables. At the discretion of the supervisory committee, the maximum number of pages may be increased. This will normally be done only to facilitate the inclusion of large appendices and/or tables. Each extended essay will normally elaborate upon research undertaken in course work.

Option 2: Courses and Thesis

The minimum degree completion requirements under this option include three one-semester courses and a thesis. To transfer to this option, students submit a thesis proposal to the supervisory committee at the end of the first semester of program enrollment. Supervisory committees may then recommend transfer to the department graduate program committee. See the department handbook for details.

Courses

Students complete three one-semester courses, two of which must be SA 850 or 870 and 857. The remaining course is chosen from SA 886, SA readings course, a course in another department or university. The option of the readings course and the extra-departmental course must be approved by the student's supervisory committee and the department graduate program committee. Students with deficiencies may be asked to complete more courses.

UrbAn Studies Program

3274 Harbour Centre site, 604.268.7914 Tel, 604.268.5297 Fax, urban@sfu.ca, www.sfu.ca/urban

Director

J.M. Munro BComm (Br Col), MBA, DBA (Indiana)

Assistant Professor

M. Holden BSc (vic, BC), MSc (Rutgers), PhD (New School, NY)

Steering Committee

N. Dyck, Sociology and Anthropology
L.J. Evenden, Geography
W.G. Gill, Vice-President, University Relations
M. Holden, Geography, Urban Studies
E. McCarr, Geography
J.M. Munro, Economics
J. Oberlander, City Program
M. Roseland, Geography
P.J. Smith, Political Science
E.C.K. Stewart, Public Policy Program

URB 697-4 Research Project

URB 696-4 Seminar in Urban Studies

The Master's Program

The Master's program requires completion of 32 credit hours of URB courses, including the following required courses:

URB 670-4 Urban Research Methods
URB 696-4 Seminar in Urban Studies
URB 697-4 Research Project

Up to two other graduate courses beyond those offered by Urban Studies may be substituted with the approval of the Urban Studies program committee.

Graduate Diploma

To qualify for the graduate diploma, students must complete a total of 24 credit hours drawn from URB courses listed, with the exception of URB 670, 696, 697 and 699. Up to two graduate courses beyond those offered by Urban Studies may be substituted with the approval of the Urban Studies program committee.

Admission

Applicants for admission are normally required to have an undergraduate degree in one of the urban studies base disciplines (economics, geography, political science, sociology and anthropology). Applications from students with other degrees or with equivalent professional training and experience will also be considered. Admissions decisions will be based on material submitted with the application.

Application

Applicants are required to submit the following documentation when applying for admission to the program:

• application for Admission to Graduate Studies
• official copy of transcript of undergraduate grades (mailed directly from the granting institution)
• three confidential letters of reference (mailed directly from the referees, one of whom should be an academic)
• a statement explaining the applicant's interest in the program
• TOEFL and TWE test scores may be required for applicants whose first language is not English

Financial Assistance

Limited student financial assistance is available.

Department of Women's Studies

5102 Academic Quadrangle, 604.291.3333 Tel, 604.291.3518 Fax, www.sfu.ca/womens-studies

Chair

M. Griffin Cohen BA (Iowa Wesleyan), MA (NY State), PhD (York, Can)

Graduate Program Chair

M.L. Stewart BA (Calg), MA, PhD (Col)

Ruth Wynn Woodward Endowed Chair

E. Philo & 2005 - 2006
Graduate Faculty and Areas of Research
See “Department of Women's Studies” on page 196 for a complete list of faculty.
L. Campbell, Women’s Studies – Canadian women’s history, social justice, social welfare
M. Griffin Cohen, Political Science – feminist economics, public policy
H. Leung, Women’s Studies – queer theory and feminist theory; gender and sexuality in Asian cinemas; literacy and cultural studies
J. Levitin, Contemporary Arts – women and film: theory and production, women and popular culture, women and comedy, Third World film and women
M. MacDonald, Women’s Studies – feminist critiques of gender equity in science and technology; ecofeminist analyses of the professionalization of environmental caring
C.K. Patton – sociology, anthropology, health; HIV/AIDS; methodology and methods training; social study of medicine
M.L. Stewart, History – women in Europe, French fashion and beauty industry
H. Zaman, Women’s Studies – women and work in comparative perspective, gender and development, feminist research methods, women of color and Canadian feminism, Third World

Associate Members
For areas of research, refer to the department listed.
B. Burtch, Criminology
H. Dawkins, Contemporary Arts
P. Dossa, Sociology and Anthropology
K. Faith, Criminology
H. Gay, History
J. Matsunura, History
A.T. McLaren, Sociology/Anthropology
K. Mezei, English
B. Pitman, Geography

The master's program in women's studies is an interdisciplinary program and it is possible, therefore, for the master’s student, in co-operation with the women's studies graduate committee, to create an individualized program of studies to suit the student's scholarly interests and goals.

The program is designed to lead to a strong academic research degree. Students will be expected to develop and demonstrate intellectual and analytical skills within a specific area of study.

The program recognizes the special needs of those already working who may wish to improve their qualifications. Some graduate courses may be offered at night, and part time students are permitted.

Master's Program

Admission Requirements
Applicants must satisfy the women's studies graduate program committee that they are prepared academically to undertake graduate level work in women's studies.

In addition to University requirements, listed in the Graduate General Regulations section, the program requires:

- a sample of scholarly work in the form of a substantial essay which is scholarly in format and approach. The paper submitted may be an undergraduate essay previously prepared, or one specially written for this purpose.
- a short statement of interests and goals in women's studies; normally students will be expected to present a definite proposal for their research.
- a short description of previous relevant course work and/or employment. Previous work should include both specialized disciplinary training and broader interdisciplinary work concerned with women.

A student will be admitted into a specific option (thesis, two extended essays or course intensive) and should apply to that option.

Qualified students will be accepted into the MA thesis option only if a suitable senior supervisor is available and willing to supervise the student. Senior supervisors will be selected from joint appointees in women’s studies and continuing faculty members on the co-ordinating committee of the Department of Women’s Studies including associate members.

A student can switch from one option to another only with the approval of the graduate program committee. A student can transfer to the thesis option only if there is a suitable supervisor available. A student with incomplete academic preparation for the MA program may be required to take up to 12 hours of additional work in either women’s studies or another relevant program.

The graduate committee, which will deal with admissions and all matters pertaining to individual students, will consist of all continuing faculty members on the co-ordinating committee.

Degree Requirements

The student normally will complete the following requirements:

- A minimum of 20 credit hours of graduate seminar, including at least one of WS 800 or 822, maintaining at least a 3.0 CGPA, and
- Submit a thesis or two extended essays giving evidence of independent research and critical abilities. An MA thesis is expected to be an in-depth empirical or theoretical study. The length of the thesis is 60-120 pages. Extended essays are defined as those papers that meet the same standards of excellence as a thesis; they will be examined in the same way as a thesis, prepared in the same format, bound, and placed in the Library. Normally, the length of each essay is 30-60 pages. The extended essays are expected to demonstrate a breadth of knowledge and competence over several areas of study.

The student will be required to take an oral examination on her or his thesis or papers at the end of the MA program. See "1.9 Preparation for Examinations" on page 249.

or

- The student must complete six graduate courses, one of which must be WS 822, and maintain at least a 3.0 CGPA.
- The student is also required to write two examinations based upon the subject areas of two of the completed Women's Studies courses.

Upon admission, the student will be assigned a two member advisory committee which has the responsibility for ensuring that the student fulfills all degree requirements. For further information concerning requirements, consult the departmental graduate handbook.

Supervisory Committee

Following the student's enrolment, a supervisory committee will be formed which has responsibility for determining, in consultation with the student, the projected program of study, selecting appropriate research topics, and ensuring that the candidate fulfills all degree requirements. The senior supervisor will be selected from joint appointees in women’s studies and continuing faculty members on the co-ordinating committee. Other faculty outside the department who are considered necessary by the student and her/his supervisors may also be added to the committee.

Doctoral Program

Admission Requirements
Applicants must satisfy the women's studies graduate program committee that they are prepared academically to undertake doctoral level work in women's studies. Normally, a master's degree will be required. Applicants are required to submit three letters of reference.

In addition to University requirements for admission to a doctoral level program, as listed in the Graduate General Regulations (see "1.3.4 Admission to a Doctoral Program" on page 246), the program requires:

- a sample of scholarly work in the form of a substantial essay which is scholarly in format and approach
- a short statement of research interests and goals in women’s studies; normally students will be expected to present a definite proposal for their research
- a short description of previous relevant course work and/or employment. Previous work should include both specialized disciplinary training and broader interdisciplinary work concerned with women and/or gender.

Degree Requirements

Normally, the student will complete the following requirements:

- Students must complete three graduate courses. The graduate committee, in consultation with the student's supervisory committee, may require a student to take additional courses, either to obtain breadth of background in women's studies or to acquire specific preparation in a student’s proposed thesis. Two of any required courses may be from women’s studies at the University of British Columbia (UBC) or relevant offerings in other SFU or UBC departments, with the approval of the student’s supervisory committee.
- Students who have completed the SFU or UBC master of arts program before admission to the doctoral program will not be permitted to duplicate graduate courses that they completed during their MA programs.
- Students must pass comprehensive examinations that consist of three major scholarly/professional tasks to be set by the student’s supervisory committee in consultation with the student, approved by the women's studies graduate committee, and completed to the satisfaction of the supervisory committee. One of the three tasks must be an exam or a review of the literature.
- Students prepare a PhD thesis proposal and defend it in a presentation that is open to the whole department.
- Students will submit a PhD thesis giving evidence of independent research and critical abilities in the interdisciplinary study of women and/or gender. The student will be examined on the thesis in accordance with the Graduate General Regulations (see "1.9.4 Preparation for Examination of Doctoral Thesis" on page 250).

Normally students will complete course work before taking the comprehensive examinations, and will then go on to present and defend the PhD thesis proposal, all within two years.

For further information concerning requirements, consult the departmental graduate handbook.
The Faculty of Business Administration offers four programs leading to the MBA degree: the executive MBA program, the global asset and wealth management program, the specialist MBA program and the management of technology MBA program.

The executive MBA program is a weekend program for mid-career managers or executives who want to continue working while studying in a collegial environment. The program takes a general management perspective; it focuses on organizational and decision-making processes that cut across functional divisions.

The Global Asset and Wealth Management program (GAWM) has been designed in close cooperation with representatives of the financial community. The result is a program that provides a high level of expertise in both the engineering and architectural aspects of investment management. Students will obtain top-notch engineering skills through courses in economic theory and the science of asset allocation and security selection. They will also develop skills in the architectural side of investment management through courses in client relationship management, interpersonal communication, investment counselling and estate planning, and through extensive consultation with industry speakers and advisors. Internships within the Financial Services community will be conducted during the course of the full time GAWM program.

The specialized MBA program is a full-time program designed primarily for recent graduates who desire more concentrated exposure to a specific field of business study and development of applied research skills. Recent graduates with a business degree move directly to study an area of specialization.

The Management of Technology program (MOT) is designed for those who already have at least two years of experience working in the technology sector and who are now considering a move into management. Students can enrol in either the accelerated option (full-time study for 10 months) or the flexible option (part-time study for 20 months).

The PhD in Business Administration aims to develop outstanding students in research and teaching in Business Administration for future employment at leading international academic institutions by designing a unique program of study under the guidance of their supervisor and the program director.

Graduate Diploma in Business Administration
Segal Graduate School of Business
500 Granville Street, Vancouver, BC, V6B 5K3
604.291.5013 Tel, 604.291.5122 Fax,
www.sfu.business.ca/gdba

Graduate Diploma Offered
Graduate Diploma in Business Administration

Graduate Degree Offered
Master of Business Administration
Doctor of Philosophy

Graduate Programs Offered
The Faculty of Business Administration offers four programs leading to the MBA degree: the executive MBA program, the global asset and wealth management, the specialist MBA program and the management of technology MBA program.

The executive MBA program is a weekend program for mid-career managers or executives who want to continue working while studying in a collegial environment. The program takes a general management perspective; it focuses on organizational and decision-making processes that cut across functional divisions.

The Global Asset and Wealth Management program (GAWM) has been designed in close cooperation with representatives of the financial community. The result is a program that provides a high level of expertise in both the engineering and architectural aspects of investment management. Students will obtain top-notch engineering skills through courses in economic theory and the science of asset allocation and security selection. They will also develop skills in the architectural side of investment management through courses in client relationship management, interpersonal communication, investment counselling and estate planning, and through extensive consultation with industry speakers and advisors. Internships within the Financial Services community will be conducted during the course of the full time GAWM program.

The specialized MBA program is a full-time program designed primarily for recent graduates who desire more concentrated exposure to a specific field of business study and development of applied research skills. Recent graduates with a business degree move directly to study an area of specialization.

The Management of Technology program (MOT) is designed for those who already have at least two years of experience working in the technology sector and who are now considering a move into management. Students can enrol in either the accelerated option (full-time study for 10 months) or the flexible option (part-time study for 20 months).

The PhD in Business Administration aims to develop outstanding students in research and teaching in Business Administration for future employment at leading international academic institutions by designing a unique program of study under the guidance of their supervisor and the program director.
Graduate

Application
Candidates must submit the following documentation when applying to the program:
• Simon Fraser University’s Application for Admission to the Graduate Diploma Program in Business Administration
• official copy of transcript of undergraduate grades (mailed directly from the granting institution)
• three confidential letters of reference (mailed directly from the referees)
• TOEFL and TWE test scores, if applicable. Applicants must take the Test of English as a Foreign Language (TOEFL) and the Test of Written English (TWE) if their first language is not English and/or their national language is other than English. Scores must be above 570 on the TOEFL test and 5.0 on the TWE.
• a recent passport style photo is required

Financial Assistance
The Bank of Montreal offers a student line of credit for Canadian citizens and landed immigrants. Loan information and application packages are available from the GDBA office. Eligible students may also apply to the Canada Student Loan program in their province of residents. (The GDBA is considered a full time program by the Canada Student Loan program.)

Diploma Requirements
Students must complete a total of 24 credit hours drawn from the following courses.
BUS 550-2 Financial Accounting
BUS 551-2 Managerial Accounting
BUS 552-4 Managerial Economics
BUS 553-2 Quantitative Business Methods
BUS 554-2 Management Information Systems
BUS 555-4 Managerial Finance
BUS 556-4 Marketing Management
BUS 557-4 Human Resource Management/Organizational Behavior
BUS 558-3 Special Topics*
BUS 559-4 Special Topics*
BUS 560 Directed Studies
*requires prior permission of the academic director

Courses Offered by the Program
The following BUS courses are offered for the graduate diploma: BUS 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560.

Specialist MBA Program
Segal Graduate School of Business
500 Granville Street, Vancouver, BC, V6B 5K3
604.291.5259 Tel, 604.291.5153 Fax, mba@sfu.ca, www.sfubusiness.ca/mba

Academic Director
M. Parent BComm (Carleton), MBA, PhD (Qu)

Executive Director
G. Rein MBA, MBA (S Fraser)
Segal Graduate School of Business, 604.268.7557 Tel

The program allows business practitioners to investigate the intended career field to develop in-depth expertise in one of three functional areas of management: international business, leadership and organizational change, or marketing.

Additional fields of specialization are available with the approval of the student’s supervisory committee. For example, students can take supporting courses in such disciplines as information systems, resource management, economics, computing science, criminology, and engineering science.

The one year cohort program begins in September, and programmed courses are sequenced through fall, spring, and summer semesters. The course load is three courses per semester with the project course undertaken in the third (final) semester.

Admission
an applicant must have an undergraduate degree in business administration or its equivalent from a recognized university, and should have completed course work in differential calculus,* statistics, managerial economics (or micro economics), accounting, management science (or operations research), finance, marketing, human resource management, and business policy (or business and society). Those admitted without all of these courses may be required to make up the deficiency without graduate credit. The minimum undergraduate GPA required for admission is 3.0 (or equivalent).

Criteria for admission, in addition to undergraduate course work, include
• minimum score on the graduate management admissions test (GMAT) of 550, and 5 on analytical writing
• strong reference letter
• at least two years of work experience
• for students whose native language is not English, acceptable TOEFL scores (570 minimum) and a score of 5 or above on the test of written English, a score of 7 or above on IELTS.

*Integral calculus is required for specializations in marketing.

Application
The maximum number of students admitted annually to each specialization is expected to be 30. Students must submit the following documentation when applying.
• Simon Fraser University graduate application form
• official transcript of undergraduate grades (mailed directly from the granting institution). Include an unofficial copy of your transcript(s) with your application.
• three confidential letters of reference (mailed directly from the referees), at least two of which should come from faculty members at universities.
• GMAT results
• Students whose first language is not English and whose undergraduate degrees have not been obtained in Canada, the United States, the United Kingdom, Australia or New Zealand where English is the language of instruction, require either their TOEFL scores or the test of written English, or their IELTS score.
• a passport style photograph

Financial Assistance
A number of entrance scholarships and graduate fellowships are available to students who demonstrate high academic performance. See “Financial Aid for Graduate Students” on page 255 for scholarships and awards available to graduate students. The Faculty can also offer most qualified graduate students a teaching assistantship in business administration.

Remuneration is normally $4,800 per semester. Also, members of faculty, from time to time, have funding available to hire research assistants.

Degree Requirements
To qualify for the MBA degree, the candidate must complete the requirements under one of two available options: project option or thesis option.

For the project option, students complete a minimum of three courses in a field of concentration, a minimum of one course in a supporting field, and one course in research techniques. Eight courses are required for the project option. Of these, four must be supporting or research courses. In addition, students must complete a written research project equivalent to one course.

A project will generally represent successful original research regarding some practical problem. While students are expected to conduct a literature search regarding the problem, it will generally be less exhaustive in comparison with that of the thesis. The scope of a project is regarded as equivalent to one six-credit hour graduate course.

For the thesis option, students complete a minimum of three courses in a field of concentration as well as at least one course in research techniques and BUS 800, Research Methodology. Six courses are required in the thesis option. In addition, students complete a written research thesis equivalent to three courses. In general, a thesis represents a major research effort in which the student, working closely with the supervisory committee, demonstrates a comprehensive knowledge of the discipline literature and successfully completes original research which represents a contribution to knowledge in the area.

The requirements and options for each of the areas are detailed below.

Fields of Concentration: three course minimum

Accounting
BUS 871-4 Seminar in Financial Accounting
BUS 872-4 Seminar in Managerial Accounting
BUS 874-4 Advanced Topics in Accounting

Finance
BUS 815-4 Portfolio Theory
BUS 817-4 Theory of Capital Markets
BUS 818-4 Advanced Topics in Business Finance

International Business
BUS 862-4 Contemporary Topics in International Business
BUS 882-4 Doing Business with the Pacific Rim Countries
BUS 883-4 International Business and Multinational Enterprises
BUS 884-4 Comparative Management
BUS 885-4 International Human Resource Management
BUS 886-4 Management of International Firms
BUS 887-4 Entry Strategies for International Markets

Management and Organization Studies
BUS 831-4 Industrial Relations
BUS 836-4 Human Resource Practices for managers
BUS 837-4 Effective Leadership and Management in Organization

BUS 839-4 Organizational Assessment and Planned Change

Marketing and Information Systems
BUS 822-4 Decision Theory
BUS 876-4 Decision Support Systems
BUS 845-4 Marketing Measurement
BUS 846-4 Mining and Models in Marketing
BUS 877-4 Managing Information Technology
BUS 878-4 Electronic Commerce

Marketing
BUS 845-4 Marketing Measurement
BUS 846-4 Marketing Theory and Models
BUS 847-4 Advanced Consumer Behavior
BUS 848-4 Research in Marketing Strategy

Policy Analysis
BUS 850-4 Theoretical Issues in Strategic Management
BUS 852-4 Researching the Corporation in Canadian Society
BUS 854-4 Business and Government Regulation
BUS 858-4 Business and the Public Interest
BUS 860-4 Administration of Public Enterprises

Supporting Courses
The academic supervisor, in consultation with the student, selects supporting courses, either from...
business administration or from other fields of study (e.g., economics, resource management, computing science, psychology).

**Research Courses**
Project option students take at least one course in research techniques (BUS 801 or equivalent). Thesis option students take BUS 800 in addition to a minimum of one course in research techniques. The academic supervisor, in consultation with the student, selects research courses. Students taking BUS 900 should complete their other research courses first.

**Co-operative Education**
This option is available to qualified MBA students at the Burnaby campus. The goal of the co-op component is to give students applied experience so that they can link concepts with practice, and advance their career opportunities.

**Admission**
Students must be admitted to the MBA program before applying for the co-op option and must have a CGPA and previous semester GPA of at least 3.0. Students must maintain these grade levels to continue in the MBA co-op option. Students entering with a business/commerce degree must complete a minimum of one semester with at least two courses at the 800 level before beginning a co-op practicum.

**Course Requirements**
To qualify for the co-op designation, students must complete two co-op practicum semesters (BUS 725 and 726) and satisfy other MBA graduation requirements. These work terms are normally interlaced with study semesters. Students complete the MBA co-op option with a study semester. A pass/fail evaluation is assigned for each co-op practicum course by a co-op co-ordinator. The grade is based on an evaluation of a work term report and assessment of the student’s work by both the supervisor and co-op co-ordinator.

**Courses Offered by the Program**
The following BUS courses are offered for the Specialist MBA Program: BUS 725, 726, 801, 822, 831, 836, 837, 839, 845, 846, 847, 849, 850, 852, 854, 858, 860, 862, 871, 872, 873, 874, 876, 877, 878, 882, 883, 884, 885, 886, 887, 897, 989, 990, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 916, 988, 998, 999.

**Executive MBA Program**
Segal Graduate School of Business 500 Granville Street, Vancouver, BC, V6B 5K3 604.291.5013 Tel, 604.291.5227 Fax, emba_program@sfu.ca, www.sfu.ca/emb
director

**Academic Director**
C. F. Smart BComm, MBA, PhD (Br Col), Segal Graduate School of Business, 604.291.5227

**Executive Director**
Ms. D. Cross BA (Qu), MHA (Ott), CHE, Segal Graduate School of Business, 604.291.5023

The program is designed for experienced, mid career managers and professionals seeking to improve their capacity to lead, to think strategically, and to manage change. This intensive, in-depth program builds a comprehensive understanding of theoretical and operational business models that create results. The program emphasizes leadership skills, strategic analysis, and change management within a global business context.

The program utilizes a cohort model where students take courses in the same sequence, and student interaction and co-operation are emphasized. Study groups and project teams are an important aspect of the learning experience.

Because Executive MBA students pursue full time careers, classes meet on alternate weekends, all day Friday and Saturday. Classes are held at Simon Fraser University, located in downtown Vancouver. The program begins in September and students complete the course work in two years.

**Admission**
Applicants will be considered for admission to the program based on the following criteria:
- current business experience, with a minimum of four to five years of managerial responsibilities
- GMAT (graduate management admission test) results
- academic qualifications, including an undergraduate degree (B average) or a professional designation (i.e. CA, CMA, CGA, PEng)*
- letters of reference
- All students must demonstrate proficiency in mathematics and use of Excel applications. Analytical IReview workshop is offered during the summer prior to the start of the first semester. Students may either complete the review workshop or write a challenge exam to demonstrate proficiency in mathematics.

*While priority will be given to those with a university degree or a professional designation, a limited number of applicants may be admitted who do not hold a formal degree but possess exceptional business management qualifications.

The application deadline is March 1 for September enrolment in the same year.

**Degree Requirements**
To qualify for the MBA degree, students must maintain a minimum average grade of B (3.0 grade point average) and complete 12 core courses and a minimum of one elective from the following list:

- BUS 601-2 Data and Decision-Making
- BUS 602-4 The Global Business Environment
- BUS 603-4 Structure and Change in Organizations
- BUS 604-4 Organizational Change and Development
- BUS 606-4 Financial Management
- BUS 607-4 Business Strategy
- BUS 610-2 Directed Studies in Business Administration
- BUS 611-4 Directed Studies in Business Administration
- BUS 612-4 Directed Studies in Business Administration
- BUS 615-4 Marketing Management
- BUS 621-4 Information Technology and Organizational Transformation
- BUS 632-2 Operations Research
- BUS 651-4 Managerial Economics
- BUS 652-2 Special Topics in Business Administration
- BUS 653-2 Special Topics in Business Administration
- BUS 654-2 Special Topics in Business Administration
- BUS 655-2 Special Topics in Business Administration
- BUS 660-4 Special Topics in Business Administration
- BUS 661-4 Special Topics in Business Administration
- BUS 662-4 Special Topics in Business Administration
- BUS 663-4 Special Topics in Business Administration
- BUS 670-4 Financial and Managerial Accounting
- BUS 681-4 Organizational Leadership and Interpersonal Behavior
- BUS 688-4 Industrial Relations
- BUS 689-4 Special Topics in Business Administration
- BUS 691-4 Business and Government
- BUS 696-6 Applied Project
- BUS 698-4 Directed Studies in Business Administration

In place of the 600 level BUS courses listed above, students may substitute, with the prior consent of the Executive MBA graduate program committee, equivalent course work from another Simon Fraser University graduate program.

**Courses Offered by the Program**
The following BUS courses are offered for the Executive MBA Program: BUS 601, 602, 603, 604, 606, 607, 610, 611, 612, 615, 621, 632, 651, 652, 653, 654, 655, 660, 661, 662, 663, 670, 681, 688, 689, 691, 696, 698.

**MBA (Global Asset and Wealth Management)**
Segal Graduate School of Business 500 Granville Street, Vancouver, BC, V6B 5K3 604.268.7921 Tel, 604.291.5153 Fax, www.sfu.ca/gawm

**Academic Program Director**
P. Klein BSc, MBA (WOnt), PhD (Tor)

**Executive Director**
D. Fraser BA (Denver), MBA (Helsinki Econ), Segal Graduate School of Business, 604.268.7921 Tel

The Global Asset and Wealth Management Program (GAWM) has been designed in close co-operation with representatives of the financial community. The result is a program that provides a high level of expertise in both the engineering and architectural aspects of investment management. Students will obtain top-notch engineering skills through courses in economic theory and the science of asset allocation and security selection. They will also develop skills in the architectural side of investment management through courses in client relationship management, interpersonal communication, investment counselling and estate planning, and through extensive consultation with industry speakers and advisors. Internships within the Financial Services community will be conducted during the course of the full time GAWM program.

**Admission**
For admission, applicants to the GAWM MBA must have an undergraduate degree in business, commerce, economics, a professional designation such as a CFA, or successful completion of the Graduate Diploma in Business Administration (GDBA) offered by Simon Fraser University. In addition to the academic requirement, applicants to the program will be considered based on the following criteria:
- two to three years of work experience in the financial services industry
- a Graduate Management Admission Test (GMAT) score report
- three letters of reference from colleagues, supervisors or significant clients
- demonstrated proficiency in English may be required if an applicant has not graduated from an English speaking university or if an applicant’s first language is not English
- in-person or telephone interview by the admissions committee.

The application deadline for full time students is April 30, and May 30 for flex time students. Subject to space, late applications may be considered from applicants with SFU’s GDBA or a business undergraduate degree.

**Application**
Students must submit the following documentation when applying for the GAWM MBA.

- Simon Fraser University’s Application for Admission to the GAWM MBA
- official copies of transcripts of undergraduate grades (mailed directly from the granting institution)
- three confidential letters of reference (mailed directly from the referees)
- GMAT (graduate management admission test) results

Simon Fraser University 2005 • 2006
Financial Assistance
Up to ten scholarships in the amount of $10,000 will be awarded annually from funds donated by the GAWM Business Council. The Royal Bank of Canada offers a student line of credit for Canadian citizen and landed immigrants. Loan information and application packages are available from the GAWM MBA office. Eligible students may also apply to the Canada Student Loan program in their province of residence.

A number of graduate fellowships are available to students who demonstrate high academic performance. See “Financial Aid for Graduate Students” on page 255 for information on other university scholarships and awards that are available to graduate students.

Degree Requirements
To qualify for the MBA degree, students must maintain a minimum average grade of B (3.0 grade point average) and complete courses totalling 40 credit hours or more from the following list:

- BUS 802-4 Foundations of Financial Economics
- BUS 803-4 Financial Econometrics
- BUS 804-4 Strategic Analysis For Wealth Management
- BUS 805-4 C4 Capital Markets
- BUS 806-2 Client Relationship And Leadership Effectiveness I
- BUS 807-2 Client Relationship And Leadership Effectiveness II
- BUS 808-2 Client Relationship and Leadership Effectiveness Practice
- BUS 809-2 Equity Security Analysis and Portfolio Management
- BUS 810-2 Fixed Income Security Analysis and Portfolio Management
- BUS 811-2 International Investing and Portfolio Management
- BUS 812-2 Tax and Estate Planning
- BUS 813-2 Ethics, Wealth Management and the Securities Industry
- BUS 814-2 Derivative Securities
- BUS 816-2 Investment Policy
- BUS 819-4 Final Project for GAWM Students

Courses Offered by the Program
The following BUS courses are offered for the Global Asset and Wealth Management program: BUS 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 816, 819.

MBA (Management of Technology)
Segal Graduate School of Business
500 Granville Street, Vancouver, BC, V6B 5K3
604.291.5259 Tel, 604.291.5153 Fax, mba@sfu.ca, www.sfu.ca/gradbusiness/mba/mot/

Academic Director
M. Parent BComm (Carli), MBA, PhD (Qu)

Executive Director
G. Rein MBA, MBA (S Fraser)

This program addresses high technology business sector needs and continues Simon Fraser University’s long tradition of industry collaboration. MOT MBA graduates will have a solid grounding in the theories and disciplines of management, particularly focused on topics relevant to an organization with technical core competencies. MOT MBA students work, or want to work, in industries that have products or services based on advanced technology. Most will have an undergraduate degree in a technical discipline; some will have an undergraduate business degree complemented with technical work experience. The program consists of two full time semesters followed by an industry-based final project. Students who continue working while they complete the program have the option of completing the program over five semesters. Courses are delivered face-to-face in new facilities at the University’s Vancouver campus.

Admission
For admission, applicants to the MOT MBA must have either an undergraduate degree in business (BBA, BCom); or a non-business undergraduate degree combined with the graduate diploma in Business (GDBA); or a non-business undergraduate degree combined with an approved program of business courses. For most applicants the business prerequisite can be satisfied through the successful completion of the management of technology foundation courses (FMOT) offered in the fall semester. In addition to the academic requirements, applicants to the program will be considered based on the following criteria:

- a minimum of two years of relevant work experience
- graduate management admission test (GMAT) test results
- three letters of reference from colleagues, supervisors or significant clients

A limited number of exceptional candidates who lack some of the academic requirements but who have other outstanding qualifications may be admitted once they have completed specific preparatory courses. The application deadline is April 30. However, late applicants who meet all the program prerequisites may be considered for admission at the discretion of the program director.

Application
Students must submit the following documentation when applying for the MOT MBA.

- Simon Fraser University’s Application for Admission to the MOT MBA
- official copies of transcripts of undergraduate grades (mailed directly from the granting institution)
- three confidential letters of reference (mailed directly from the referees)
- GMAT (graduate management admission test) results
- TOEFL and TWE test scores, if applicable.

Applicants must take the test of English as a Foreign Language (TOEFL) and the test of written English (TWE) if their first language is not English and/or their national language is other than English. Scores must be above 570 on the TOEFL test and 5.0 on the TWE.

- a recent passport style photo

Financial Assistance
An entrance scholarship annually in the amount of $10,000 will be awarded from funds donated by the MOT Business Council. A number of teaching assistantships, valued at up to $4,000 each, are available to qualified graduate students upon application. In addition to teaching assistantships, members of the faculty from time to time have funding available to hire research assistants.

The Bank of Montreal offers a student line of credit for Canadian citizens and landed immigrants. Loan information and application packages are available from the MOT MBA office. Eligible students may also apply to the Canada Student Loan program in their province of residence.

A number of graduate fellowships are available to students who demonstrate high academic performance. See “Financial Assistance and Awards” on page 55 for information on other university scholarships and awards that are available to graduate students.

Degree Requirements
To qualify for the MBA degree, students must maintain a minimum average grade of B (3.0 grade point average) and complete courses totalling 40 credit hours or more from the following list:

- BUS 750-4 Managing Technological Innovation
- BUS 752-4 Strategic Management of Technology-based Firms
- BUS 754-4 Marketing Technology-based Products and Services
- BUS 756-4 Strategic Use of Information and Knowledge
- BUS 758-4 Supply Chain Management
- BUS 761-2 Leadership for the Technology Driven Enterprise
- BUS 762-4 Project Management
- BUS 763-2 Managing Self and Others: An Organizational Simulation
- BUS 764-2 Financing the Organization
- BUS 766-2 Organizational Focus, and Control through Financial Management
- BUS 774-4 Special Topics*
- BUS 776-4 Special Topics*
- BUS 778-4 Directed Studies in Management of Technology*
- BUS 780-4 Applied Project

* requires prior approval of the academic director

Courses Offered by the Program
The following BUS courses are offered for the Management of Technology program: BUS 750, 752, 754, 756, 758, 759, 761, 762, 763, 764, 766, 770, 771, 772, 773, 774, 776, 778, 780.

PhD Program
West Mall Centre, 604.268.7996 Tel, 604.291.5122 Fax, www.sfu.ca/phd

Academic Director
C. Veld MFE, PhD, PhD (Tilburg), WMC 3361, 604.268.6790 Tel

As part of a small cohort, students will benefit from the opportunity to share the experience with others studying in various areas of business through a small number of common core courses. In addition, students will undertake a program of study in their area of specialization and research methods that is tailored to the needs and interests of individual students and the research strengths of the faculty. It also contains a teaching development component involving a certificate program for graduate students in university learning and teaching for students without substantial teaching experience or experienced teachers who wish to upgrade their skills.

Admission
The minimum university requirements for doctoral program admission are provided in Graduate General Regulations 1.3.4 (page 246).

New students will be admitted for the fall semester only. A minimum score on the graduate management
admissions test (GMAT) of 600 and 5 on analytical writing is required.

In addition, fit between applicants' interests and available faculty supervisors will be considered before a student is admitted to the program. Interviews and a statement of interest in the application will be used to determine fit between students and faculty.

Application

Students must submit the following documentation when applying:

- Simon Fraser University's graduate application form
- official transcript of undergraduate and graduate grades (mailed directly from the granting institution).
- It is advisable to include an unofficial copy of your transcript(s) with your application
- three confidential letters of reference using the Faculty of Business Administration PhD Reference Form, at least two of which are completed by faculty members at universities that comment on the student's ability to conduct original research
- Faculty of Business Administration PhD Application Supplemental Information Form and Check List
- score on the graduate management admissions test (GMAT)
- students whose first language is not English and whose undergraduate degrees have not been obtained at an institution in Canada, the United States, the United Kingdom, Australia or New Zealand where English is the language of instruction, require scores on the test of English as a foreign language (TOEFL), the test of written English (TWE) or International English Language Testing System (IELTS). The minimum University requirements for test scores are TOEFL 570 (computer based score is 230), TWE 5 and IELTS overall band score of 7.0
- a recent passport style photo

Degree Requirements

The program will combine a small number of cohort courses, a research methodology minor and specialty courses selected by the senior supervisor and the doctoral candidate's committee to create a curriculum, which will be flexible within certain limits.

Candidates will typically take three core courses, three courses in the research methods minor and three to five courses in their specialized area as determined by their senior supervisor and doctoral committee. There will be a required research project with a pass/fail grade in the student's third semester and a candidacy exam. The PhD candidate will be expected to fulfill the university qualifications with regard to a thesis and its public defence.

Those students who lack a business degree may, at the discretion of the PhD director, be asked to take

three courses in the research methods minor and

three courses selected by the senior supervisor and the
discretion of the PhD director in consultation with

program. These requirements are determined at the

director of the PhD program.

Qualifying Courses

Candidates will typically take three core courses, three courses in the research methods minor and three to five courses in their specialized area as determined by their senior supervisor and doctoral committee. There will be a required research project with a pass/fail grade in the student's third semester and a candidacy exam. The PhD candidate will be expected to fulfill the university qualifications with regard to a thesis and its public defence.

Those students who lack a business degree may, at the discretion of the PhD director, be asked to take

three courses in the research methods minor and

three courses selected by the senior supervisor and the
discretion of the PhD director in consultation with

program. These requirements are determined at the

director of the PhD program.

Research Methods Minor

The research methods minor area involves the student in three research methods courses approved by both the director of the PhD program and the student's senior supervisor. These courses, given at SFU, are deemed pertinent to the specific research of the student. Other courses will be considered if they can be shown to meet the needs of the PhD candidate.

Examples of some possible courses available at SFU are as follows.

- ECON 835 Econometrics
- ECON 836 Econometrics
- ECON 837 Econometrics
- ECON 838 Econometrics
- EDUC 863 Quantitative Methods
- EDUC 867 Qualitative Methods
- PSYC 910 Experimental Research Design
- PSYC 911 Research Design II: Research Studies
- SA 857 Research in Sociology and Anthropology
- STAT 602 Generalized Linear and non-linear modelling
- STAT 801 Mathematical Statistics
- STAT 802 Multivariate Statistics
- STAT 805 Non-parametric and Discrete Statistics
- STAT 806 Hazard Modeling—Lifetime Analysis

These three courses will be taken in the first five semesters. The PhD student's supervisor can add to or substitute minor courses in consultation with the director of the PhD program.

The Major: Specialization

These three to five courses are to be set and administered by the senior supervisor in consultation with the student's PhD committee and the director of the PhD program. These courses can include graduate courses in the Faculty of Business Administration, directed studies courses, special topics, as well as approved graduate courses in other programs or universities. It is highly recommended that at least one of the major courses be given by the student's senior supervisor. In special cases the senior supervisor can recommend, in consultation with the PhD director, that the student take fewer or more courses than required in the major. Of the courses, at least two should be offered at Simon Fraser University.

Qualifying Courses

Students without prior business education or lacking some specific background or combination of education and experience may be required to take qualifying courses after being admitted to the PhD program. These requirements are determined at the discretion of the PhD director in consultation with potential senior supervisors. The number of qualifying courses may vary widely depending on the specific background of the student and their intended area of study.

Research Presentations

In the third term all PhD students will be required to present their pilot research project in a public seminar.

Third Semester Project (Summer Project)

PhD students will generate a research project in their third semester. The research project will be graded by the senior supervisor. A pass/fail assessment is intended to help the student in developing their research. The student can rewrite the project once. If the grade is still deficient, they will be asked to leave the program.

Those who pass the research project will be required to present it in the open research presentations (see above). It is hoped that the questions and answers emerging in this context will assist the student in developing their understanding of and preparation for the thesis defence.

Candidacy Exam

At the end of the second year, term six, the PhD candidate will present an oral defence of their thesis proposal. In this context, the PhD director will assign a faculty member external to the PhD candidate's committee, but within the Faculty of Business Administration, to join in the examination. The examination will probe a written thesis proposal and may extend into the area in which the candidate intends to do their work. The senior supervisor, committee and external examiner will confer a pass/fail grade upon the candidate's presentation and written work. Suggestions by the evaluators on how to improve and clarify the research proposal are expected. Those who fail the candidacy exam must retake it and pass by the end of the eighth semester or they will be asked to leave the program. No PhD candidate, unless given special permission, will be allowed to take a candidacy exam after the eighth semester.

Thesis/Thesis Defence

Following Graduate General Regulations 1.9 (page 249), the PhD thesis in Business Administration will focus upon original research. The thesis can take the form of one long narrative/empirical work or a series of three papers.

Residence Requirement

A PhD candidate must be registered and in residence at Simon Fraser University for a minimum of five semesters. See Graduate General Regulations 1.7.3 (page 248)

Teaching Option

PhD students in the Faculty of Business Administration who do not have substantial teaching experience will have the option of completing the Certificate Program for Graduate Students in University Teaching and Learning—instructional development, teaching enhancement and a practicum—offered by educators in the Learning and Instructional Development Centre at Simon Fraser University. The intention here is to enhance the abilities of PhD students interested in developing their teaching skills. The practicum component will involve developing and delivering an undergraduate course in the Faculty of Business Administration.
Faculty of Education

Graduate Faculty of Education – 309

8655 Multi Purpose Complex, 604.291.4787 Tel, 604.291.4320 Fax, www.educ.sfu.ca/gradprogs

Dean
P. Shaker BA, MA, PhD (Ohio State)

Associate Dean
P.P. Grimmett BA (Newcastle, UK), BEd (Keele), MA, MEd (Alta), EdD (Br Col)

Faculty and areas of research
See “Faculty of Education” on page 306 for a complete list of faculty.

C.L. Amundsen – educational technology; teaching and learning; teacher education; students’ motivation to learn and course planning in the technology-enhanced classroom; pedagogical growth and development in higher education

H. Bai – philosophy of education; ethics and moral education; epistemology; Eastern thought; theories of knowledge; environmental philosophy; metaphysical and ontological assumptions underlying educational theory and practice; moral agency; democracy; culture concept; inter-subjectivity, attention and perception; ecology as a substantive philosophy; spirituality; Zen aesthetics

S. Balin – drama education; aesthetic education; philosophy of education; creativity; critical thinking

R. Barrow – psychology of education; moral philosophy; curriculum; teacher education; place of philosophy in empirical educational research and teacher education; inquiry into coherence and value of curriculum design and development

J.D. Beynon – ethnography; educational anthropology; teacher education; education of ethnic minorities; community and schools; multicultural education; the education, in Canada, of native Indian and minority group children; social context of education; the preparation of teachers and administrators to work with children from divergent cultural backgrounds; the development of multi-cultural curriculum (for minority and majority cultural groups)

C.W. Bingham – Philosophy of education; literary theory; curriculum; the psyche; teaching as a life practice; inter-human recognition; literary representations of education, hermeneutics, deconstruction, queer theory; authority in education; curriculum and textuality; relational education; multiculturalism

S.R. Campbell – co-emergence and co-dependence of mathematical and philosophical thinking in the history of Western culture, and how those developments can inform mathematics education; the role of experience, intuition, imagination, and judgment in mathematical concept formation and reasoning, both in natural settings and in computer-enhanced learning environments

W. Cassidy – social studies education; citizenship education; comparative education; curriculum assessment; comparative citizenship education; students and social responsibility, altruism and civic participation; developing a tolerant community; role simulations and field studies in learning

D.H. Dagenais – bilingualism; socio-linguistics; literacy; ethnography; educational change; language learning in minority and majority contexts; literacy practices at home and at school; second language curriculum development and implementation; participant perception and social representations of change

S.C. de Castell – Educational media studies, non-formal learning environments, cultural studies and critical theory; multi-modal, study of emerging methods of models of educational communications, education, gaming and gender

K. Egan – Curriculum theory; children’s intellectual development; the form and uses of stories; especially in educating; social studies in the curriculum

M. Fettes – Epistemological, sociopolitical and pragmatic aspects of educational reform; theoretical aspects of modernity and post-modernism; evaluation criteria and sociology of linguistic and educational thought; linguistic and cultural diversity in policy and practice; ecological education; Aboriginal education; Esperanto and education; imagination in teaching and learning; critical, and transformative approaches to educational administration

E. Stelomethet – Gardner – aboriginal education; language and culture; cross-cultural education

I. Geva-May – policy studies, policy analysis, policy reform; political cultures

P.P. Grimmett – teacher education and teacher development; curriculum theory and implementation; educational leadership; teacher research; reflective practice; cultures of teaching; teachers as researchers; teacher development of professional knowledge; collegial consultation and supervision of teaching

A.O. Horvath – counselling families; therapeutic relationships; cognitive-attributional processes

M.J. Hoskyn – language, memory and learning across the lifespan: individual and age-related differences in language and literacy acquisition; literacy interventions for children in the early stages of language acquisition, the elderly in cognitive decline and children and/or adults with specific learning challenges (i.e., learning disabilities, autism, aspergers, second language learners)

L. Kanevsky – education of gifted children, educational psychology

D. Kaufman – teaching and learning with technology; instructional methods in higher education, research and evaluation methods

L. LaRocque – community, collaboration, ethic of caring, leadership, district-school relations, implementation of change, school reform, educational policy, teacher education, school communities, staff collaboration, school-university collaboration, transformational leadership, shared leadership

L.J. LeMare – children’s socio-emotional development; early childhood education; shyness; peer relationships; the self-system; individual differences in interpersonal style; instructional contexts

D. Laitoch – education policy analysis, policy analysis specifically, related to No Child Left Behind Act, Individuals with Disabilities Education Act and Higher Education Act

P. Liljedahl – instances of creativity, insight, and discovery in mathematics; mathematics and affect; teaching and learning of elementary number theory; imagination and mathematics; instructional design; mathematical problem solving and numeracy

M. MacDonald – early childhood education; language and literacy development; children with diverse needs

A.M. MacKinnon – science education; teacher education; philosophy of science; children’s conceptual development in science; the nature and role of praxis experiences in teacher development

G. Madoc-Jones – language arts; hermeneutics; philosophy of education; poetry; history of literacy; BC literature

C.M. M anchur – language arts education; enhancing teacher self-concept and developing curriculum to do that; teaching and learning style models; systematic observation; Jungian psychological type and perceptual psychology measures (pre and in-service); professional development for the secondary English teacher; learning styles of thegifted; evaluation practices in secondary English classrooms; predicting teacher effectiveness; writing process; integrated secondary education

J. Martin – educational psychology; counselling psychology; philosophy and history of applied psychology; memory-mediated learning from teaching and counselling; research on teaching and research on counselling

D. Moore – applied linguistics, sociolinguistics, bilingualism and plurilingualism; plurilitteracy; multicultural curriculum and multi-cultural learning; code-switching; bilingual education; French as a second language

J. Nesbit – self-regulated learning with multimedia resources; learning object evaluation; adaptive learning systems; scalable models for distributed learning

P. Neufeld – general inter-literacy development and instruction; learning disabilities; and English as a second-language reading; the social construction of disability and risk; the prevention, evaluation, and remediation of reading disabilities; and early English literacy development in English language learners

D.K. O’Neill – educational technology; inquiry learning in K-12 history and science; computer-supported collaborative learning (CSCL) in K-12; tele-mentoring (on-line mentoring), relationships to support inquiry-oriented teaching; children’s reasoning in History and Science; disciplinary genres of writing and measures of genre appropriateness; non-invasive strategies for classroom research

D. Paterson – school counselling; developmental counselling; counselling in the elementary school; school-based support teams; counselling in groups

S.J. Smith – teacher education and teacher development; educational theory and practice; moral agency; metaphysical and ontological assumptions underlying educational theory and practice; moral cultures

E. Samir – philosophy of administration and leadership, professional ethics, Weberian studies; ideologies of administration; epistemological foundations of administration and leadership; literary sources of administrative critique; leadership ethics; a variety of topics in Weberian studies including critique of bureaucracy, alternative administrative forms, authority styles, leadership, and the transformation of the cultural sphere of modern society including the rationalization of the university

M. Schmidt – educational reform; career and technology education; classroom assessment; issues in education; emotions in teaching and leading

Y. Senyshyn – philosophy of education and language; philosophical analysis applied to creative live musical performance

S. Snowber – human sciences; issues related to physical education; outdoor education and health education; physical education, phenomenological inquiry, pedagogical theory, and children’s play interactions

C. Snowber – movement education; physical education; arts in education; phenomenological curriculum research; embodiment and pedagogy; writing and the body; improvisational performance and teacher education; narrative inquiry; performative inquiry; spirituality and holistic education

L. Sterling – program evaluation in aboriginal health and labour markets; First Nations curriculum; impact of residential schools; curriculum development for
aboriginal social work programs; aboriginal retention in schools/colleges; First Nations infant and early development programs

R. Stooke – early childhood literacies; multimodal literacies; literacy education outside school; qualitative research methods (discourse analysis, ethno-methodology, institutional ethnography); home-school communication; school librarianship

J.H. Sugarman – educational psychology; theoretical and philosophical psychology, philosophy and methodology of social science; counselling/psychotherapy; metaphysics of educational and psychological phenomena; psychological development; philosophical anthropology; hermeneutics

J. Thompson – counselling; close relationships; career development; couples therapy; career counselling and career decision making; women’s career development; close relationships and psychological health; the process of change in couples therapy

K. Toohey – English as a second foreign language; multi-cultural education; native Indian education; bilingual education; bilingual education for minority language students; social class membership and second language learning; curriculum development in multi-cultural education

J. Van Aalst – computer-based learning; physics education; science education; qualitative research methods; computer-aided text analysis; collaborative learning

P.H. Winne – instructional psychology; research on teaching; research methodology

D. Zandvilt – learning environments, science and environmental education, education and technology; affects and effects of new ICT’s on physical and psychosocial learning environments, influence of alternative or informal (experientially based) educational contexts

R. Zazkis – mathematics education; computers in education; teacher education; the use of computers to teach/learn mathematics concepts; teacher’s understanding of mathematics

Graduate Programs

8655 Education Building, 604.291.4787 Tel, 604.291.4320 Fax, www.educ.sfu.ca/gradprogs

Graduate Program Director
T.J. O’Shea BEng (McG), BEd (Sask), MEd (Manit), EdD (B Col)

Graduate Degrees Offered

Master of Arts
Master of Education
Master of Science
Doctor of Education
Doctor of Philosophy

The Faculty of Education offers graduate programs leading to MEd, MA, MSc, EdD and PhD degrees in select fields of scholarly and professional studies. The nature of and requirements for degrees vary by degree and by field of study.

The MEd is a professional degree signifying advanced knowledge about and advanced training in educational practice. Minimal requirements for MEd course work/comprehensive exam programs is the completion of 35 credit hours in required and elective courses, plus a final comprehensive examination (five credit hours). The content of EDUC 883 MEd Comprehensive Examination varies by program.

In two programs, the MEd culminates in a project that materially and substantially relates theory to practice or that systematically examines a significant problem in education. Students enrolled in MEd programs that include a project must successfully complete a minimum of 33 credit hours divided between courses (at least 28 credit hours) and EDUC 881 Project (five credit hours).

The MA, MSc, EdD and PhD are degrees signifying advanced knowledge in a field of specialization and advanced competence in conducting significant and original research in education.

Minimal requirements for the MA and MSc degrees are successful completion of 33 credit hours of graduate work divided between required and elective courses (at least 23 credit hours) and EDUC 889 Master’s Thesis (10 credit hours).

Minimal requirements for the PhD are successful completion of 35 graduate credit hours beyond requirements for a MA or MSc, consisting of 20 credit hours divided among required and elective courses, comprehensive examination (five credit hours) and EDUC 889 Doctoral Thesis (10 credit hours).

The EdD in Educational Leadership is a professional degree signifying the acquisition of advanced knowledge and expertise in educational leadership.

Minimal requirements for the EdD degree are successful completion of 40 credit hours of graduate work, consisting of 25 credit hours divided among required and elective courses, a comprehensive examination (five credit hours), and EDUC 889 Doctoral Thesis (10 credit hours).

Admission

See Graduate General Regulation 1.3 (page 245) for University admission requirements. In exceptional circumstances, applicants who do not meet these requirements may be considered if superior scholarly or professional achievement is demonstrated.

Applications for master’s and doctoral programs in education are reviewed once each year. All parts of an application to the master’s program in counselling psychology must be complete and received by January 31. All parts of an application to all other master’s programs must be complete and received by February 15. All parts of an application to doctoral programs must be complete and received by January 15. Applicants to an Individual master’s program (see below) are urged to begin the application process well in advance of this deadline. In some cases, an interview may be required. Admission is granted to a specific degree and to a particular program or specialization. Admission decisions are available between March 15 and April 15. Application information will be available after November 15 by telephone, fax, e-mail and web.

Please contact MEd Off Campus and EdD programs directly for deadlines.

MA, MEd, MSc and PhD Program Information

604.291.4787 Tel, 604.291.4320 Fax, educgdp@sfu.ca

MEd Off Campus and EdD Program Information

604.291.5897 Tel, 604.291.4320 Fax, dpruner@sfu.ca

Internet Information

www.educ.sfu.ca/gradprogs

Supervision

A pro-tem advisor will be appointed by the director of graduate programs upon admission. The pro-tem advisor offers counsel regarding elective courses and other matters and, in those programs requiring a project or thesis, about selecting a committee to supervise this work. For additional information on supervisory committees, refer to the Graduate General Regulations, section 1.6 (page 248).

Master’s Programs

The MA and MSc degrees signify the acquisition of advanced knowledge in the student’s field of specialization and competence in conducting significant and original research in education. Graduate programs leading to these degrees culminate with a master’s thesis (EDUC 889).

The MEd is a professional degree signifying advanced knowledge and training in educational practice. All MEd programs, except an Individual program and the Educational Psychology program, culminate with a comprehensive exam (EDUC 883). In an Individual program and the Educational Psychology program, a project (EDUC 881) is undertaken that materially and substantially relates theory to practice or that examines a significant education problem.

MEd Off Campus Programs

MEd programs are intended for practicing educators who wish to improve their abilities to critically read, evaluate and integrate educational theory and research.

Two-year MEd programs in Educational Leadership and in Curriculum and Instruction, offered in communities through the province, focus on a theme that integrates scholarly inquiry with focal interests and professional practice needs. During fall and spring semesters, classes normally are scheduled every second weekend in the community where the program is situated. In the summer semesters, students typically attend classes on the SFU campus in July.

School districts, educational institutions, groups and individuals interested in an MEd off campus program should contact the off campus graduate programs office. Telephone: 604.291.4168.

MEd Off Campus Programs – Three-Year Option

A three-year option of the MEd focuses on Educational Practice and builds on the course work of the Graduate Diploma in Advanced Educational Studies. This option admits students who are enrolled in the two-year GDip and provides for a third year of study leading to the MEd in Educational Practice.

Interested individuals should contact Field Programs. Telephone: 604.291.4892.

Residence Requirements

See “1.7 Residence and Course Requirements” on page 248.

Research Competence Requirement

Master’s students must demonstrate research competence that is appropriate to their program or program specialization to the supervisory committee’s satisfaction. See “1.7,2 Residence Requirement for the Master’s Degree” on page 248.

MEd Comprehensive Examinations

All MEd candidates, except those in an Individual program and the Educational Psychology program, must take a comprehensive examination by enrolling in EDUC 883. Normally, this occurs in the semester in which course requirements are completed or in the immediately following semester. Students are advised to observe deadlines for adding courses in planning the semester in which they enrol in EDUC 883.

MEd Project

This option is available to students in an Individual or Educational Psychology program.
**MA and MSc Thesis**

Normally, before the fifth program course, the student presents a master's thesis research plan to the pro-temp advisor or a tenured or tenure track member of the Faculty of Education whom the student proposes to be senior supervisor. The senior supervisor and at least one other University faculty member chosen in consultation with the senior supervisor constitutes the supervisory committee and the student proceeds to the thesis. The master's thesis will be examined as prescribed in the Graduate General Regulations sections 1.9 (page 249) and 1.10 (page 250).

**Programs of Study for a Master's Degree**

**Arts Education**

This program leads to a master of education course work/comprehensive exam (MAEd) or MA degree. The MAEd requires 35 credit hours of course work plus a comprehensive exam while the MA requires 25 credit hours plus a thesis.

MAEd students complete all of the following courses.

**Core Courses**

EDUC 843-5 Embodiment and Curriculum Inquiry
EDUC 848-5 Issues and Ideas in Aesthetic Education
EDUC 849-5 Artists, Society and Arts Education
EDUC 850-5 Creativity and Education
EDUC 852-5 Education and Dramatic Art
EDUC 866-5 Curriculum Theory and Art Education
EDUC 869-5 Music Education as Thinking in Sound

All students enter the program through the MAEd route. Students may move to the MA after completing four courses, given faculty approval. MA students must complete five courses from the list, as scheduled. These are to be regarded as a minimum. Other courses may be required depending on thesis interest.

**Comprehensive Examination/Thesis**

A final comprehensive exam is required for MAEd students. A thesis is required for MA students.

**Counselling Psychology**

This program leads to an MA or an MAEd degree. The MA program is for students interested in careers as counsellors in schools, colleges, and community agencies. Students pursue a general program with opportunities for specialization provided in course work and field work. Students in the counselling MA program must complete a minimum of 35 hours of course work and a thesis. All MA students must complete the core requirements listed below.

**MA Core Courses**

EDUC 801-5 Counselling Practicum I
EDUC 802-5 Counselling Practicum II
EDUC 862-4 Individual Assessment Procedures
EDUC 874-5 Counselling Skills and Strategies
EDUC 898-10 Masters Thesis

MA students must also complete one methodology research course selected from the list below in consultation with the senior supervisor.

EDUC 863-5 Quantitative Methods in Educational Research
EDUC 864-5 Research Designs in Education
EDUC 883-5 Advanced Qualitative Research in Education
EDUC 887-5 Qualitative Methods in Educational Research
EDUC 975-5 Advanced Quantitative Methods in Educational Research

In addition, MA students must complete a minimum of two elective courses selected in consultation with the senior supervisor. Electives may be selected from the MA/MEd electives list.

The MAEd program is for students who wish to become counsellors in educational settings. The program consists of a minimum of 50 credit hours of course work and a comprehensive examination. All MAEd students must complete the core requirements listed below.

**MAEd Core Courses**

EDUC 801-5 Counselling Practicum I
EDUC 802-5 Counselling Practicum II
EDUC 862-4 Individual Assessment Procedures
EDUC 864-5 Research Designs in Education
EDUC 870-5 Theories of Counselling
EDUC 874-5 Counselling Skills and Strategies
EDUC 877-5 Contemporary School Counselling
EDUC 883-5 MAEd Comprehensive Examination

In addition, MAEd students must complete a minimum of four elective courses selected in consultation with the senior supervisor. Electives may be selected from the MA/MEd electives list.

**MAEd Comprehensive Examination (EDUC 883)**

Students take a comprehensive examination after the completion of the course work and supervised field experiences. The examination will be set by the faculty members associated with the program, in association with the director, and will cover two areas: ethics and professional practice.

**MA/MEd Electives**

A course may not count as a core and an elective. Acceptable courses may include the following:

EDUC 803-5 Educational Program Supervision
EDUC 805-5 Social Development in the School Context
EDUC 818-5 Studies in Teacher-Student Interaction
EDUC 822-5 Evaluation of Educational Practice
EDUC 829-5 Contemporary Issues in Learning Disabilities
EDUC 833-5 Seminar in Social and Moral Philosophy and Education
EDUC 860-3 Foundations of Educational Psychology
EDUC 863-5 Quantitative Methods in Educational Research
EDUC 866-5 Advanced Qualitative Research in Education
EDUC 867-5 Qualitative Methods in Educational Research
EDUC 871-5 Family Counselling
EDUC 873-4 Vocational Counselling
EDUC 876-5 Cognitive Intervention Research
EDUC 878-5 Group Counselling
EDUC 970-5 Systems and Paradigms in the Psychology of Education
EDUC 975-5 Advanced Quantitative Methods in Educational Research

**Curriculum and Instruction**

This program leads to the MA degree, which requires at least 25 credit hours of course work and a thesis (EDUC 883); or the MAEd degree, which requires at least 35 credit hours of course work and a comprehensive examination (EDUC 883). This program is intended for educators who wish to examine critically current educational theory, research and practice. Participants will be encouraged to examine their own instructional practices and to consider carefully the match between their practices and their developing theories of education.

The Curriculum and Instruction program can focus on an area of specialization such as diversity and inclusion, education and technology; French education, or can be pursued as a general program. Current specializations are available from the Graduate Programs office or on the web site at www.educ.sfu.ca/gradprogs.

The general program's required courses are a minimum of three core courses from the list below. Each Curriculum and Instruction program specialization adds course work requirements to the general program requirements.

**Core Courses**

EDUC 818-5 Developing Educational Programs and Practices for Diverse Educational Settings
EDUC 820-5 Current Issues in Curriculum and Pedagogy
EDUC 822-5 Evaluation of Educational Programs
EDUC 823-5 Curriculum and Instruction in an Individual Teaching Specialty
EDUC 830-5 Implementation of Educational Programs
EDUC 833-5 Seminar in Social and Moral Philosophy and Education
EDUC 851-5 Perspectives on Technology-Supported Learning
EDUC 864-5 Research Designs in Education

**Comprehensive Examination/Thesis**

A final comprehensive exam is required for MAEd students. A thesis is required for MA students.

**Educational Leadership**

This program leads to the MA or MAEd degree and is intended for current or prospective leaders engaged in educational activities in a variety of societal workplaces (e.g. schools, colleges, community agencies, health agencies, justice agencies, arts agencies).

The MA consists of five required courses (25 credit hours) plus a thesis; the MAEd consists of seven courses (35 credit hours) plus a comprehensive exam. Courses are offered in the late afternoon/evening and during the day in summer session. While the program is grounded both in research and in practice, it has a strong philosophical and conceptual orientation. All these features, reflected in the program and in each course, encourage students to view issues and problems in the workplace in deeper, more complex and educative ways.

Students in both the MA and MAEd programs must complete the following core courses.

**Core Courses**

EDUC 813-5 Organizational Theory and Analyses
EDUC 815-5 Administrative Processes
EDUC 817-5 Policy Processes
EDUC 818-5 Leadership Studies

**MAEd Requirements**

Students will normally be admitted to the MAEd course work/comprehensive exam program. In addition to the four core courses, students will complete.

EDUC 811-5 Fieldwork I

plus two additional courses (10 credit hours) approved by the co-ordinator.

EDUC 883-5 MAEd Comprehensive Examination follows completion of course work requirements. It is held once a year, during summer session.

**MA Requirements**

Students admitted to the MA program may, on the senior supervisor's recommendation, transfer into the MA program. The MA program requires the four core courses above plus EDUC 864-5 Research Designs in Education. Students must demonstrate appropriate research competence which may necessitate taking one or both of

EDUC 863-5 Quantitative Methods in Educational Research
EDUC 867-5 Qualitative Methods in Educational Research

Students may also take one or more electives as required or approved by the senior supervisor.
EDUC 898 Master’s Thesis (10 credit hours) follows completion of course work requirements.

Educational Practice
This three-year program, leading to the MEd (course work/comprehensive exam) degree, focuses on Educational Practice and builds on the course work of the Graduate Diploma in Advanced Educational Studies. It is available only to students who are enrolled in the Graduate Diploma program offered by Field Programs in the Faculty of Education. Students in the second year of the two year Graduate Diploma program may apply to this MEd program and will undertake a third year of studies following completion of the Graduate Diploma course work. The program requires 30 credits of 500-level EDPR course work, plus 15 credits of core graduate course work, and a comprehensive examination.

Core Courses
EDUC 807-5 The Foundations of Action Research
EDUC 867-5 Qualitative Methods in Educational Research
EDUC 811-5 Fieldwork I
EDUC 883-5 MEd Comprehensive Examination
Contact Field Programs: 604.291.4892 Tel, 604.291.5882 Fax, fpa@sfu.ca

Educational Psychology
This program leads to the MA or MEd degree (Comprehensive Examination or Project). Through studies of theories and allied empirical research in educational psychology, and research methodologies, the program provides for a general survey of educational psychology or specialization in development, exceptionality, or reading. Students may apply for transfer credit if graduate course work completed at another institution duplicates courses in this program.

Core Courses
EDUC 840-0 Graduate Seminar
EDUC 860-3 Foundations of Educational Psychology
EDUC 864-5 Research Designs in Education

General Stream Required Courses
EDUC 827-5 Individual Differences in Learning
EDUC 840-5 Sociocultural Perspectives on the Psychology of Development and Education

Development Stream Required Courses
EDUC 805-5 Social Development in the School Context
EDUC 842-5 Sociocultural Perspectives on the Psychology of Development and Education

Exceptionality Stream Required Courses
EDUC 829-5 Contemporary Issues in Learning Disabilities
EDUC 876-5 Cognitive Intervention Research

Reading Stream Required Courses
EDUC 826-5 The Reading Process
EDUC 828-5 Instructional Practices in Reading

Electives
Elective courses must be approved by the pro-tem advisor or senior supervisor prior to registration.

MA Degree Requirements
Students must complete:
• core courses (eight credits)
• courses in a stream (10 credits)
• two electives chosen from courses within the Educational Psychology program (10 credits)
• one of EDUC 863-5 Quantitative Methods in Educational Research
EDUC 867-5 Qualitative Methods in Educational Research
• and EDUC 888-10 Master’s Thesis

MEd Degree (Project) Requirements
Students must complete:
• core courses (eight credits)
• courses in a stream (10 credits)
• three electives chosen from courses within the Educational Psychology program (15 credits), and
• EDUC 881-5 Project

MEd Degree (Comprehensive Examination) Requirements
Students must complete:
• core courses (eight credits)
• courses from any three streams (30 credits)
• at least one elective course within the Educational Psychology program (5 credits), and
• EDUC 883-5 MEd Comprehensive Examination

Individual Program
In exceptional cases, when no other regularly offered master’s program can accommodate special interests, an applicant may propose a unique curriculum called an Individual Program. The curriculum of an Individual Program must include a minimum of 30 credit hours of course work plus EDUC 881-5 Project for a MEd Degree, or 25 credit hours of course work plus EDUC 888-10 Master’s Thesis for a MA Degree

Individual Program applicants must submit a proposal detailing
• the inquiry to be pursued for the master’s project or thesis
• courses proposed and their sequence (Plan of Study and Research)
• a rationale for how the proposed courses contribute toward the master’s project or thesis
• the program may contain a combination of up to 10 credit hours of course work in Directed Readings and/or Fieldwork
• an explanation of how the applicant’s interests are not met by a regularly offered master’s program.

The plan must be developed with and approved by a faculty sponsor who automatically becomes the senior supervisor of the master’s program. A second person suitably qualified in relation to the project or thesis joins the supervisory committee normally before the completion of the fourth course in an Individual Program.

In addition to other criteria considered for admission, the director of graduate programs or designate will adjudicate the plan of study and research regarding availability of resources to support it and whether it can be completed in reasonable time.

Secondary Mathematics Education
This cohort program, leading to the MSc (thesis) or MEd (course work/comprehensive) in the teaching of secondary school mathematics, is offered jointly by the Faculty of Education and the Department of Mathematics.

For the MSc (thesis) degree, as well as writing a thesis which will be supervised by a member of the Mathematics, students complete 25 credit hours (see below). Students pursuing the MEd (course work) option will, in addition to 25 credit hours, take a minimum of 10 credit hours of graduate electives in education and/or mathematics, and a comprehensive examination. Students will select a degree option in consultation with faculty members.

Core Courses
EDUC 844-5 The Research Basis of Mathematics Education
EDUC 846-5 Foundations of Mathematics Education
EDUC 847-5 Teaching and Learning Mathematics
MATH 603-4 Foundations of Mathematics

Mathematical Modelling

Electives
The remaining courses are selected from graduate level courses in the Faculty of Education or in the Department of Mathematics and Statistics.

Teaching English as a Second/Foreign Language
This program, leading to the course work/comprehensive MEd degree, is designed for teachers working with English as a second language learners in public schools. It will also appeal to those teachers of English as a second or foreign language to adults, whose interests are primarily pedagogical. The program consists of 35 credits of course work followed by the MEd comprehensive examination.

Core Courses
EDUC 714-5 Special Topics: Equity in Language and Literacy Education
EDUC 824-5 Seminar in Second Language Teaching
EDUC 825-5 Second Language Acquisition and Pedagogy
EDUC 856-5 Sociocultural Perspectives on Education and Identity

Electives
Students will select 3 of the following courses.
EDUC 711-5 Special Topics: Anti-Racist Pedagogies
EDUC 720-5 Special Topics: Vygotskian Methodology for Language Instruction
EDUC 820-5 Current Issues in Curriculum and Pedagogy
EDUC 826-5 The Reading Process
EDUC 827-5 Individual Differences in Learning
EDUC 854-5 Teachers as Agents of Change
EDUC 855-5 Multicultural and Race Relations
Education: Policy Development and Program Implementation

Comprehensive Examination
A final comprehensive exam is required for MEd students.

Doctoral Programs
Doctoral degrees signify the acquisition of advanced knowledge in a field of specialization and advanced competence in conducting significant and original education research. The EdD program emphasizes leadership in education. The PhD programs accentuate theoretical and professional studies plus advanced scholarly inquiry in education. Both degrees culminate in a comprehensive examination (EDUC 983) and a doctoral thesis (EDUC 899). Requirements for doctoral degrees vary by program.

Residence Requirements
See “1.7 Residence and Course Requirements” on page 248.

Comprehensive Examination
All doctoral candidates must take a comprehensive examination by enrolling in EDUC 983. This is a prerequisite to EDUC 899 Doctoral Thesis. Normally, the comprehensive exam is taken in the semester in which course requirements are completed or the semester immediately following.

EdD and PhD Thesis
Normally, before the fourth program course, the student presents a doctoral thesis research plan to the pro-tem advisor or a tenured or tenure track Faculty of Education member whom the student proposes to be senior supervisor. Following the senior supervisor’s approval and at least one other member of the University faculty chosen in consultation with the senior supervisor, the
supervisory committee is formed and the student proceeds to the thesis. The thesis will be examined as in *Graduate General Regulations* 1.9 (page 249) and 1.10 (page 250).

For EdD students, the supervisory committee should include a third member who is a qualified professional educator from the world of practice.

Upon supervisory committee approval, the completed thesis is examined as in the *Graduate General Regulations*, sections 1.9 (page 249) and 1.10 (page 250).

### Programs of Study

#### Arts Education

This program, leading to a PhD, is for those interested in becoming scholars and leaders in art education. Students are required to complete the following.

**Educational Theory**

EDUC 901-5 Seminar in the History of Educational Theory

EDUC 902-5 Interdisciplinary Seminar in Contemporary Educational Theory

**Arts Core**

EDUC 945-5 Doctoral Seminar in Arts Education

**Curriculum Specialization**

EDUC 910-5 Directed Readings

EDUC 983-5 Doctoral Comprehensive Examination

EDUC 899-10 Doctoral Thesis

Courses in research methodology may be required depending upon the student’s research interests.

#### Curriculum Theory and Implementation

This program leads to the PhD degree. It requires successful completion of the following course work, amounting to a total of 20 credit hours beyond the requirements for the MA, MSc or MEd.

EDUC 901-5 Seminar in the History of Educational Theory

EDUC 902-5 Interdisciplinary Seminar in Contemporary Educational Thought

EDUC 911-5 Colloquium in Curriculum Theory I

EDUC 912-5 Colloquium in Curriculum Theory II

EDUC 983-5 Doctoral Comprehensive Examination

EDUC 899-10 Doctoral Thesis

The supervisory committee may require further work in the Faculty of Education or other faculties. Students are encouraged to draw additional courses from related departments outside the Faculty of Education.

#### Mathematics Education

Curriculum Theory and Implementation PhD program candidates who wish to specialize in mathematics education must have prior knowledge of issues related to mathematics teaching and learning.

Students are required to complete the following.

EDUC 901-5 Seminar in the History of Educational Theory

EDUC 902-5 Interdisciplinary Seminar in Contemporary Educational Theory

EDUC 910-5 Directed Readings

EDUC 946-5 Doctoral Seminar in Mathematics Education

EDUC 983-5 Doctoral Comprehensive Examination

EDUC 899-10 Doctoral Thesis

**Educational Psychology**

This PhD program addresses theories, basic and applied research, and research methods in educational psychology. The program does not prepare students for registration with the BC College of Psychologists. Students may apply for transfer credit if the course is deemed acceptable to the degree. Exact transfer credit equivalence is not required, provided the courses are assessed as such. Admitted students must satisfy all requirements for the MA program in Educational Psychology. If EDUC 975 was taken in the MA program, it is waived from the core.

**Core Requirements**

EDUC 840-4 Graduate Seminar

EDUC 970-4 Systems and Paradigms in Educational Psychology

EDUC 971-4 Advanced Topics in Educational Psychology

EDUC 975-4 Advanced Quantitative Methods in Educational Research

**Electives**

Students select at least two additional graduate courses totaling a minimum of eight credits. Elective courses must be approved by the pro-tem advisor or senior supervisor prior to registration.

EDUC 983-5 Doctoral Comprehensive Examination

EDUC 899-10 Doctoral Thesis

**EdD in Educational Leadership**

This program, leading to an EdD degree, is for educational administrators who work full time so classes are held on extended weekends and during the summer. This degree looks beyond educational leadership as the application of generic management techniques. It prepares leaders for situations where technique is insufficient and prepares educational leaders to deal with currently pressing issues and to cooperate with other educational partners (e.g. school districts and consortia, Ministry of Education regional offices) and all courses are offered at off-campus sites. Each program addresses a theme that is relevant to the educational community.

Students normally progress through the program as a cohort. Significant portions of the program may be supported via the Internet. Students who are unable to follow a cohort through an entire theme-based program must complete a total of 30 credit hours, at least 18 of which must be in the given theme.

**Admission to Diploma Program**

The minimum requirements for admission are:

- a bachelor’s degree from a recognized university
- a teaching certificate based on a recognized teacher preparation program, and
- submitted evidence of the student’s ability to undertake advanced work in education.

Under exceptional circumstances, applicants without a teaching certificate but having a bachelor’s degree and significant teaching or leadership experience in education (e.g. in a pre-school or post secondary setting) may be accepted into the program.

### Field Programs

**Graduate Diploma in Advanced Professional Studies in Education**

This diploma program, administered through the Field Programs office, consists of a minimum of 30 credit hours in 500 level EDPR courses. (The total number of credit hours may vary, depending on the program content but will, in no case, be less than 30 credit hours of 500 level EDPR courses.) With the director of field programs’ approval, up to eight credit hours of other acceptable course work may be used to complete the requirements for the diploma.

Graduate diploma programs are developed in co-operation with other educational partners (e.g. school districts and consortia, Ministry of Education regional offices) and all courses are offered at off-campus sites. Each program addresses a theme that is relevant to the educational community.

Graduate diploma programs provide opportunities for students to develop skills in interdisciplinary areas and to work with professionals in these fields. The minimum requirements for admission are:

- a bachelor’s degree from a recognized university
- a teaching certificate based on a recognized teacher preparation program, and
- submitted evidence of the student’s ability to undertake advanced work in education.

Under exceptional circumstances, applicants without a teaching certificate but having a bachelor’s degree and significant teaching or leadership experience in education (e.g. in a pre-school or post secondary setting) may be accepted into the program.

**Graduate Diploma in Educational Practice**

This diploma program is offered through the Faculty of Education’s Field Programs office. It is designed for students who wish to develop their skills in interdisciplinary areas and to work with professionals in these fields. The program is structured to provide opportunities for students to engage in practical, hands-on learning and to develop skills in areas such as educational leadership, curriculum development, and research methods.

Students must complete a total of 30 credit hours, of which at least 18 must be in the given theme. The remaining 12 hours may be selected from a menu of approved courses.

**Graduate Diploma in Advanced Professional Studies in Education**

This program is designed for professionals who wish to develop their skills in interdisciplinary areas and to work with professionals in these fields. The program is structured to provide opportunities for students to engage in practical, hands-on learning and to develop skills in areas such as educational leadership, curriculum development, and research methods.

Students must complete a total of 30 credit hours, of which at least 18 must be in the given theme. The remaining 12 hours may be selected from a menu of approved courses.

**Field Programs**

8550 Education Building, 604.291.4892/5830 Tel, 604.291.5882 Fax, www.educ.sfu.ca/fieldprograms

**Director**

A.M. MacKinnon, BSc, BED, MSc (Calg).

EdD (Br Col)

**Graduate Diploma Offered**

Advanced Professional Studies in Education

The Graduate Diploma in Advanced Studies in Education is offered through the Faculty of Education’s Field Programs office. It is designed for professionals who wish to develop their skills in interdisciplinary areas and to work with professionals in these fields. The program is structured to provide opportunities for students to engage in practical, hands-on learning and to develop skills in areas such as educational leadership, curriculum development, and research methods.

Students must complete a total of 30 credit hours, of which at least 18 must be in the given theme. The remaining 12 hours may be selected from a menu of approved courses.

**Admission to Diploma Program**

The minimum requirements for admission are:

- a bachelor’s degree from a recognized university
- a teaching certificate based on a recognized teacher preparation program, and
- submitted evidence of the student’s ability to undertake advanced work in education.

Under exceptional circumstances, applicants without a teaching certificate but having a bachelor’s degree and significant teaching or leadership experience in education (e.g. in a pre-school or post secondary setting) may be accepted into the program.

**Graduate Diploma in Educational Practice**

This diploma program is offered through the Faculty of Education’s Field Programs office. It is designed for students who wish to develop their skills in interdisciplinary areas and to work with professionals in these fields. The program is structured to provide opportunities for students to engage in practical, hands-on learning and to develop skills in areas such as educational leadership, curriculum development, and research methods.

Students must complete a total of 30 credit hours, of which at least 18 must be in the given theme. The remaining 12 hours may be selected from a menu of approved courses.
Faculty of Health Sciences

Graduate Programs

2812 West Mall Centre, 604.291.4821 Tel, 604.291.5927 Fax, www.fhs.sfu.ca, fhs@sfu.ca

Dean
D.R. MacLean MD (Dal), MA, MHS (Tor)

Associate Deans
C.B. Dean BSc (Sask), MMath, PhD (Wat)
M. Hayes BA, MSc, PhD (Mcm)

Director, Administration and Operations
I. Rodway, infroday@sfu.ca, 604.291.4877

Education Program Consultant
A. Davison BSc (Calgary), MSc, PhD (Rutgers)
davison@sfu.ca

Faculty

Faculty hiring is under way. See “Faculty of Health Sciences” on page 212 for a complete list of faculty members, and the Faculty of Health Sciences website www.fhs.sfu.ca for updated information.

Introduction

New faculty members have been appointed with experience in multidisciplinary approaches to health using a wide range of methodologies. Their expertise provides links to current research and teaching programs by complementing existing faculty with health interests in other departments.

Research and teaching programs at the graduate and undergraduate levels share the defining features of the Faculty of Health Sciences, integrating social and natural sciences approaches to determinants of individual and population health, health promotion and risk mitigation, and health informatics and technologies. This integration combines a broad spectrum of research approaches, methods of inquiry, levels of analysis, and research perspectives.

The Faculty of Health Sciences accepts its first cohort of students in the fall semester of 2005 into the master’s program in Population and Public Health. Undergraduate courses becomes available at the same time, and a Bachelor’s degree is expected to be available in early 2006.

Interdepartmental graduate degrees are available by special arrangements. See “1.3.5 Admission Under Special Arrangements” on page 246.

Graduate Programs

2812 West Mall Centre, 604.268.7036 Tel, fhsgrads@sfu.ca

Graduate Chair
R.A. Lockhart BSc (BrCol), MA, PhD (Calif)

Graduate Degree Offered

Master of Science

MSc in Population and Public Health

Those completing the program will have well-developed skills in health promotion, disease prevention, determinants of health, and understanding of the complex interplay among types and levels of societal investment in health, along with the resulting trade-offs and implications for development of public policy. The program emphasizes strong research, methodological, communication, and computational skills, including the use of large health databases.

Applicants seeking a research career, or those seeking a PhD degree, or new graduates without prior work experience will be advised to take the thesis stream. Graduates from this stream will have demonstrated competence at research, having completed a thesis and having gained relevant research skills in their course work.

Applicants with significant relevant work experience, and seeking professional or practitioner positions of leadership in health, will normally be advised to take the practicum/project stream. Graduates from this stream will have theoretical and practical concepts of population health, determinants of health, epidemiology, health promotion, health economics, global health, individual and population health-relevant behavior, and principles of public health. Skills will be learned in the context in which they are applicable, through emphasis on workplace-integrated study, problem-based learning, team-approaches to case studies, and seminars. The practica provide workplace experience in population and public health. Applications are in advancement of health, social policy-making and health problem solving.

General Aspects

It is anticipated that the applicants to this program will have a variety of educational backgrounds, and in recognition of this, the degree structure is flexible. It provides an opportunity for students with strengths in one area to remedy deficiencies in another, through required qualifying and make-up courses at both the graduate and undergraduate levels. The program will be delivered intensively for cohort completion in four semesters, including a practicum in the penultimate semester. The intended full-time course load is the equivalent of four courses per semester, plus other required activities. All day and evening courses include web-integrated components that provide flexibility.

Residency

Students will normally be required to spend at least two semesters at SFU.

Admission

Applicants who are recent graduates should have completed a baccalaureate degree in a discipline related to health, policy analysis, epidemiology, or systems of information technology. A cumulative grade point average of at least 3.3 is normally required. Applicants with substantial experience as practitioners in health or a related field will be evaluated in part on academic credentials and in part on their career accomplishments. Applicants may receive conditional admission to the program, subject to the satisfactory completion of additional specified courses.

Application

Applicants should have successfully completed a university-level undergraduate course in statistics equivalent to SFU’s STAT 302-3 (Analysis of experimental and observational data). Applicants may receive conditional admission to the program, subject to the satisfactory completion of additional specified courses. See “Graduate General Regulations” on page 245 for further information.

Applications should be received by January 31st of each year. The earliest applicants may receive priority consideration for financial support. Students will normally be admitted for the September (Fall) semester.

All applicants must submit the following:

• A graduate application form and the application fee.

• All official transcripts showing all grades (mailed directly from the granting institution).

• Three confidential letters of reference mailed directly from referees, at least two of whom are university faculty members. This requirement may be waived for mid-career applicants with professional experience, where one or more letters from employers may be used to confirm the applicant’s readiness for advanced studies.

• A one-page essay that explains why the applicant wishes to pursue this MSc degree, and identifies a problem of special interest to the student within the program.

• A student whose first language is not English and whose undergraduate degree was from an institution where English is not the language of instruction is required to submit TOEFL (570 minimum) and Test of Written English (five or above) scores.

• Students must indicate whether they are applying for the thesis or practicum/project stream. Normally it will not be possible to switch between streams after the first week of the second semester in the program.

• An application package, including reference forms, is available from the Faculty of Health Sciences or can be downloaded from the web page http://www.fhs.sfu.ca.

Not all students who meet standards can be admitted. Availability of a faculty supervisor, availability of expertise in the desired area of study, enrollment space in the program, and specific preparation of the student for the proposed studies are factors.

A student may be awarded conditional admission. This means the student is admitted contingent upon completing additional courses to a specified standard, normally during the first semester.

Upon admission, each student will be assigned a temporary faculty advisor. See “1.6 Supervision” on page 248 for information governing appointments of senior supervisors and supervisory committees, including timelines.

Degree Requirements

Thesis Stream

The first students will be admitted to the thesis stream in January 2006. Students must:

• Complete and successfully defend a thesis.

• Complete a minimum of 24 credits including the core courses HSCI 801, 802, 803, P&PH 801, and elective courses. With approval from the graduate program committee, electives may be chosen from graduate courses in other academic units across the university. At least one must be a Population and Public Health elective, and students are encouraged to include one elective from another faculty.

• Complete a one-credit seminar, HSCI 691 (graded satisfactory/unsatisfactory), preferably in the initial semester of study in the program.

PRACTICUM/PROJECT STREAM

Students must:

• Complete a practicum, consisting of one-semester full-time as an intern in a workplace appropriate to the degree, or a project based on a problem or analysis in population and public health that involves a research component. The purpose of the practicum/project is to develop skills related to the health sciences, population health, or workplace health policy, and its assessment, enhancement, and innovation. A supervisory committee must be approved by the graduate program committee prior
to the start of each practicum. The supervisory committee will assist the student in developing a proposal which must be approved before the start of the practicum semester. The senior supervisors will include a FHS faculty member or associate, and one other committee member. The practicum/project work term is normally completed in the summer semester. A grade is assigned for the practicum/project report, based on an evaluation of a work term report and assessment of the student’s work by both the supervisor and the practicum co-ordinator.

- Complete a minimum of 36 credits selected in consultation with the supervisory committee, normally including the core courses HSCI 801, 802, 803, P&PH 801, the research conceptualization course HSCI 895, and the practicum/project report HSCI 896. Students who have completed a practicum will be expected to take HSCI 897, while students who have completed a project may take it if they have workplace experience. In addition, at least three Population and Public Health elective courses are required. The remaining courses can be selected from the electives listed in the Calendar entry for Population and Public Health or from graduate courses available from other academic units across the University. Students are encouraged to include at least one elective from another faculty.
- The one-credit seminar, HSCI 691 (graded satisfactory/unsatisfactory), should be taken in the initial semester of study in the program.

See “Graduate General Regulations” on page 245 for additional requirements.

### Core Courses for the MSc in Population and Public Health

#### Core Courses in Health Science
- HSCI 801-4 Case Studies in Applied Biostatistics for the Health Sciences
- HSCI 802-4 Advanced Topics in Epidemiology for the Health Sciences
- HSCI 803-4 Recent Advances in Research Methodology for the Health Sciences
- P&PH 801-4 Case Studies in Health Systems and the Determinants of Health

#### Thesis, Practicum/Project, and Seminar Courses
- HSCI 691-1 Seminar in the Health Sciences
- HSCI 895-4 Current Approaches to Problem-Solving in the Health Sciences Workplace
- HSCI 896-4 Practicum/Project Report
- HSCI 897-4 Seminar in Workplace-Integrated Learning
- HSCI 898-6 MSc Thesis

#### Professional Associates and Workplace Supervisors for Practica

Oversight of the practicum program will be by a Community Partnership Advisory Board, consisting of members of the graduate faculty, recognized adjunct faculty who function as workplace mentors, and one or more graduate student representatives. Workplace mentors will be recognized by the Faculty of Health Sciences as leaders in the field of health, willing to provide workplace-integrated learning experience. They will be found primarily in the public sector or non-governmental organizations.

### Institute for Health Research and Education

Director: D. MacLean, MA, MHS (Tor), MD (Dal), Associate Directors: C.B. Dean, BSc (Sask), MMath, PhD (Wat), M.V. Hayes, BA, MSc, PhD (McM), 604.291.4821 Tel, 604.291.5927 Fax, www.ihre.sfu.ca, ihre@sfu.ca

The Institute for Health Research and Education (IHRE) promotes and facilitates research collaborations that bridge the basic biomedical sciences, clinical interfaces, societies, cultures, and the health of populations, health services and systems, and technology of health. It provides a focus for researchers from all sectors of health, and provides infrastructure to promote and foster cross-disciplinary research collaborations and the creation and promotion of new knowledge. Applications lie in the understanding of health issues from population-based, individual, and biological perspectives, and development and transfer of new technologies and treatments into the community. The IHRE coordinates a range of activities that provide library holdings in the areas of health, provided expert personnel to assist with grant applications, and skilled personnel to maintain health-related instrumentation. It has also served to foster and initiate the Faculty of Health Sciences, a venue for instructional programs open to students in September 2005, starting with a master's degree in Population and Public Health.
Faculty of Science

P9304 Shrum Science Centre, 604.291.4590 Tel, 604.291.3424 Fax, www.sfu.ca/~science
Dean of Science
M. Plischke BSc (Montr), MPhil (Yale), PhD (Yeshiva)

Associate Dean
R.W. Mathewes BSc (S Fraser), PhD (Br Col)

Director of Science Student Liaison and Alumni Development
J. Simms BSc (New Br), MSc (Wat)

Graduate Diploma Offered
Graduate Diploma in Bioinformatics

Graduate Degrees Offered
Master of Environmental Toxicology
Master of Pest Management
Master of Science
Doctor of Philosophy

General Regulations
See “Graduate General Regulations” on page 245 for admission requirements, registration, residence requirements and degree completion time limits.

Admissions
Requirements for a Master’s Degree
The minimum requirements are those stated in the Graduate General Regulations (page 245). Any additional requirements imposed by the supervisory committee must be satisfied. Individual departments may require additional graduate courses. Students who, in the opinion of the supervisory committee, lack certain graduate course prerequisites may be required to complete some undergraduate courses.

Requirements for a Doctoral Degree
A PhD candidate must present a thesis embodying original research. In addition, 15 credit hours beyond the BSc degree is required. Of these, at least 12 must be graduate courses and the remaining three may be graduate or upper division undergraduate within the candidate’s department or an ancillary department. These are minimum faculty requirements. Individual departments may have additional requirements.

Full-Time Study
Full-time study for the MET, MPM, MSc, and PhD normally is a period of intensive work during which not more than 20 employment hours per week may be undertaken by the candidate. These refer to clock hours either at external employment off campus or employment on campus as a teaching assistant or research assistant performing specified duties not directly related to the candidate’s program of study.

Supervisory Committee
For information on supervisory committees, see “Graduate General Regulations” on page 245.

Thesis
The thesis must be presented and lodged in the University library. Details concerning the final form for binding are available from the library.

PhD Examinations
Examinations may be oral and/or written and all committee members must certify the results. See “1.9.4 Preparation for Examination of Doctoral Thesis” on page 250 for further regulations.

Research Facilities
Faculty of Science research programs, housed in modern research laboratories, are serviced by a wide range of facilities and equipment. The research complement includes 177 faculty members, 52 post-doctoral fellows and research associates and 350 to 400 graduate students.

Biological research is enhanced by fresh and salt water aquaria facilities, a quarantined insectary, an 11 metre research vessel, and boat and vehicle transports. The Bamfield Marine Sciences Centre on Vancouver Island is available as a teaching and research facility for marine biology and oceanography. The marine centre is operated jointly by the Universities of Alberta, British Columbia, Calgary, Simon Fraser University and the University of Victoria.

Experiments are available at TRIUMF, a 500 MeV proton accelerator, for the study for example, of high energy nuclear reactions, muon chemistry and nuclear decay systems of exotic nuclei. TRIUMF is a joint venture of the University of Alberta, University of British Columbia, Simon Fraser University, the University of Victoria and Carleton University.

Department of Biological Sciences
BB255 Shrum Science Centre, 604.291.4475 Tel, 604.291.3496 Fax, www.sfu.ca/biology
Chair
T.D. Williams BSc (Exe), PhD (Brist)
Graduate Program Chair
L.M. Dill BSc, MSc, PhD (Br Col)

Faculty and Areas of Research
See “Department of Biological Sciences” on page 214 for a complete list of faculty.

L.J. Albright – marine microbiology, fish diseases
A.T. Beckenbach – population genetics, biometrics
L.I. Bendell-Young – ecotoxicology, environmental toxicology
F. Breden – population genetics, evolution of social behavior
B.J. Crespi – behavioral ecology
L.M. Dill – behavioral ecology
E. Elle – plant evolutionary ecology
D.J. Green – avian ecology, avian populations, conservation biology
G.J. Gries – behavioral ecology, chemical ecology, semiochemicals
A.S. Harestad – wildlife biology
M.W. Hart – marine invertebrates
E.B. Hartwick – marine invertebrate ecology
N.H. Haunerland – biochemistry, insect physiology
C.J. Kennedy – biochemical and aquatic toxicology
A.R. Kerneecy – plant molecular biology
F.C.P. Law – environmental toxicology, environmental risk assessment
L.F.W. Lesack – ecosystem biogeochemistry, limnology, land-water interactions
C.A. Lowenberger – parasitology, insect vectors
R.W. Mathewes – paleoecology, palynology
J. Mattson – Arabidopsis developmental genetics
A.R. Moores – biodiversity, molecular analysis
M.M. Moore – fungal pathogenesis, toxicology, microbiology
R.A. Nicholson – pesticide biochemistry, toxicology
I. Novales Flamarique – visual ecology, neuroethology, evolution
E. Palsson – mathematical biology, cell modeling
A.L. Plant – root specific gene expression, osmotic stress, seed specific gene expression
Z.K. Punja – plant biotechnology and pathology
B.D. Rolfberg – population dynamics, insect behavioral ecology
T.D. Williams – physiological ecology
M.L. Winston – apiculture, social insects
R.C. Ydenberg – behavioral ecology

Associate Members
For areas of research, refer to the department listed.

B. Galdikas, Archaeology
C. Krieger, Kinesiology
L.M. Quarmby, Molecular Biology and Biochemistry
G.F. Tibbits, Kinesiology

Biochemistry and Molecular Biology
See page 320 for information about graduate studies in molecular biology or biochemistry.

Biophysics
Students who wish to undertake interdisciplinary work in biophysics may apply to the Department of Biological Sciences or the Department of Physics. See “Graduate General Regulations” on page 245 for biophysics under special arrangements.

Marine Science
Marine Science courses, which may be included in a biology graduate program at Bamfield, BC, are offered in conjunction with certain other universities. They are available for graduate course credit for MSc and PhD students on recommendation of the supervisory committee.

See “Marine Science MASC” on page 417 for a list of courses.

Admission
See “Graduate General Regulations” on page 245 for admission requirements.

Biological Sciences
Program Requirements
All master’s and doctoral programs require a thesis based on original research.

Each PhD student must pass an oral candidacy exam prior to the end of the fourth program semester or the second semester after transfer from the MSc program. The exam concentrates on the student’s research area, follows a written PhD research proposal submission, and is graded acceptable/unacceptable. Students with an unacceptable grade must pass a second exam within six months; a second unacceptable rating requires program withdrawal.

For those with a master’s degree, the PhD program requires a minimum of three courses totalling not less than eight credit hours. Of these, at least six are in graduate courses and the remaining hours may be chosen from courses at the graduate or upper division undergraduate level within the candidate’s department, or in an ancillary department. Where advance approval is obtained, a PhD student may take up to one-half of the above course requirement at another university for credit toward the SFU PhD.

PhD students entering directly from a bachelor’s program or transferring from the MSc program must complete 15 credit hours in total (i.e. one additional
Graduate

three credit course beyond the University MSc requirement (see “1.7.2 Residence Requirement for the Master’s Degree” on page 248). Additional course work may be set by the supervisory committee.

For graduate program information, contact the chair, department graduate studies committee.

Pest Management

Program Requirements

This Master of Pest Management (MPM) program is a research-based program that is distinct from an MSc program in its strongly applied approaches to learning and discussion of biological principles, and in interfacing science with problems facing society. The program requires a thesis based on original research with relevance to pest management (BISC 849).

Each MPM student must complete all of BISC 601-2 Agriculture, Horticulture and Urban Pest Management, BISC 602-2 Forest Pest Management, BISC 647-3 Pest Management in Practice and two of BISC 816-3 Biology and Management of Forest Insects, BISC 817-3 Social Insects, BISC 841-3 Plant Disease Development and Control, BISC 842-3 Insect Development and Reproduction, BISC 843-3 Population Processes, BISC 844-3 Biological Controls, BISC 846-3 Insecticide Chemistry and Toxicology, BISC 851-3 Vertebrate Pests, BISC 852-3 Biology of Animal Disease Vectors, BISC 884-3 Special Topics in Pest Biology and Management and one additional 800 level elective (3 credit hours).

Pest Management Courses

BISC 601, 602, 603, 604, and 605 are designed for students undertaking the Master of Pest Management degree. They may be taken for credit subject to prior approval by the student’s supervisory committee.

Environmental Toxicology

Admission Requirements

Before entering the Master of Environmental Toxicology (MET) program, the following or equivalents should be completed. These prerequisites may be waived by the departmental graduate studies committee under special circumstances on recommendation from the director.

BISC 312-3 Environmental Toxicology I
BISC 313-3 Environmental Toxicology II
CHEM 292-3 Organic Chemistry II
MBB 221-3 Cellular Biology and Biochemistry

Program Requirements

Each student chooses a senior supervisor after admission, with program director consultation. A supervisory committee is formed by the beginning of the third semester of full time equivalent enrolment. Students complete a project on a specific environmental toxicology aspect which may be based on original field, laboratory or library research. The student will be supervised on this project by the senior supervisor while enrolled in BISC 856. In addition to submission of a report at the completion of the project, the student prepare for an oral examination according to Graduate General Regulations 1.9 (page 249) and will be examined according to section 1.10 (page 250).

This program may be taken on a part time basis. Every MET program consists of a minimum of 32 graduate credit hours, including the following courses.

Core Courses

BISC 650-3 Environmental Risk Assessment: Human Health Risk Assessment and Ecological Effects-based Risk Assessment
BISC 651-3 Environmental Toxicology Tests I: Ecological Effects-based Tests
BISC 652-3 Environmental Toxicology Tests II: Mammalian Toxicity Tests
BISC 654-3 Food and Drug Toxicology
BISC 655-3 Environmental Toxicology Seminar
BISC 656-0 Master of Environmental Toxicology Project
BISC 855-3 Biochemical Toxicology
STAT 650-5 Quantitative Analysis in Resource Management and Field Biology

Elective Courses

Students must complete one of BISC 854-3 Ecotoxicology, EASC 613-3 Groundwater Hydrology, REM 610-5 Management of Contaminants in the Environment and six credit hours chosen from the following BISC 846-3 Insecticide Chemistry and Toxicology, BISC 839-3 Industrial Microbiology, BISC 883-3 Special Topics in Environmental Toxicology, KIN 851-3 Recent Advances in Experimental Carcinogenesis, REM 612-5 Simulation Modelling in Natural Resource Management.

Professional Registration and Certification

Eligibility for the certification examination of the American Board of Toxicology Inc. can be met through the Master of Environmental Toxicology program and four years of work experience.

Environmental Toxicology Courses

The following courses are offered for this program: BISC 650, 651, 652, 654, 655, 656, 657, 658.

Co-operative Education

This option allows students to gain work experience outside the University. Award of the degree is not contingent upon successfully completing this option. Students registering in the co-op program must note the regulations governing minimum fee requirements. See “Graduate Fees” on page 252.

Department of Chemistry

Chemistry Bldg, 8888 University Drive, Burnaby

See “Graduate General Regulations” on page 245.

Co-op Education

Admission

Co-operative Education

Admission

Co-operative Education

Admission

Co-operative Education

Admission

Co-operative Education

Admission

Co-operative Education

Admission

See “Graduate General Regulations” on page 245.

Degree Requirements

Course Work

The minimum requirement for the master’s degree is 12 credit hours of graduate courses.

Research

A major part of this program is devoted to original research. A thesis describing this must be submitted and defended at program conclusion.

PhD Program

Admission

Co-operative Education

Admission

Co-operative Education

Admission

Co-operative Education

Admission

Co-operative Education

Admission

Co-operative Education

Admission

Co-operative Education

Admission

Co-operative Education

Admission

See “Graduate General Regulations” on page 245.

Degree Requirements

Course Work

For students entering with a BSc or equivalent: 15 credit hours of graduate courses. For students entering with a master’s degree: six credit hours of graduate courses.

Research

A major portion of this program will be devoted to original research. A thesis embodying new and significant results must be presented and defended at the conclusion of the degree program.

Transfer from MSc to PhD Program

Transfer from the MSc to the PhD program without submitting an MSc thesis must satisfy University
requirements. Evidence of research potential will be judged by the graduate program committee.

**Biochemistry**

See “Graduate Course Information” on page 320.

**Chemical Physics**

Students who wish to undertake interdisciplinary work in chemical physics may apply to the Department of Chemistry or to the Department of Physics. See “Graduate General Regulations” on page 245 for chemical physics under special arrangements.

**Co-operative Education Program**

The Department of Chemistry offers a co-operative education option to allow students to gain work experience outside the academic sphere. Students who are currently enrolled in the department's MSc program may apply for registration in CHEM 881 and 882. This option is only tenable after the completion of an MSc thesis and defence but before formal graduation. Registration in these courses requires the approval of the graduate program committee.

**Department of Earth Sciences**

TASC 1 – 7201, 604.291.5387 Tel, 604.291.4198 Fax, www.sfu.ca/earth-sciences

**Chair**

D.M. Allen BSc, MSc, PhD (Car)

**Graduate Program Chair**

P.S. Mustard BSc (Calg), MSc, PhD (Car), PGeo

**Professor Emeritus**

M.C. Roberts, BSc (Lond), MA (Tor), PhD (Iowa), PGeo

**Faculty and Areas of Research**

See “Department of Earth Sciences” on page 218 for a complete list of faculty.

D.M. Allen – hydrogeology

A.J. Calvert – geophysics

J.J. Clague – geologic hazards and Quaternary geology

B.P. Corr – sedimentology and petroleum geology

G. Flowers – glaciology

H.D. Gibson – structural geology, geochronology, tectonics

E.J. Hickin – fluvial geomorphology and sedimentology

J.A. MacEachern – ichnology and sedimentology

D. Marshall – geochemistry

P.S. Mustard – evolution of sedimentary basins

D. Stead – engineering geology, rock mechanics, forestry geoscience

D.J. Thorkelson – cordilleran tectonics and volcanology

B.C. Ward – environmental and Quaternary geology

G. Williams-Jones – volcanology and geological hazards

**Adjunct Professors**

R. Enkin

D. Froese

L. Godin

J.W. Haggart

L. Jackson

O. Lian

J.W.H. Monger

J. Moore

P.H. Whittlefield

**MSc Program**

The Department of Earth Sciences offers a master of science with emphasis on earth surface processes and environmental geoscience, surficial and Quaternary geology and sedimentology.

**Admission**

See “Graduate General Regulations” on page 245 for admission requirements. Students should normally have a BSc degree or equivalent in an honors program with at least a good second class standing (3.0 GPA) in the earth sciences (geology, geological engineering, geophysics, geomorphology, soil science or physical geography).

**Degree Requirements**

**Course Work**

All students take EASC 600 and a minimum of 12 credit hours composed of at least four graduate courses from the list in the Course Catalogue (page 325), or with the graduate chair's approval, from related graduate courses in other departments such as Geography, Chemistry, Physics, Biological Sciences and Resource and Environmental Management. Course selections will include no more than six credit hours from 700 level EASC courses. In addition, a thesis is required. The actual course selection will be a reflection of the student's research interest and guidance from the advisor.

**Research**

Graduates will be required to conduct original research and report their results in a thesis.

**PhD Program**

See “1.3.4 Admission to a Doctoral Program” on page 246 for minimum University requirements for admission to a doctoral program.

**Transfer from Master's to PhD Program**

Students accepted to the PhD program will normally have completed a master's degree in science or engineering. However, a student without a master’s degree may be admitted to the PhD program after at least 12 months in the MSc program if

- the student has completed at least 75% of the course work credit hours that are required for the master’s program with a cumulative grade point average of at least 3.67
- the student has shown outstanding potential for research
- the student's supervisory committee, departmental graduate program committee, and the senate graduate studies committee grant approval.

**Course Work**

For students entering with a BSc or equivalent, 15 graduate credit hours in addition to EASC 600, 900, 901 and 998 is required. For students entering with a BSc or equivalent, 15 graduate credit hours in addition to EASC 600, 900, 901 and 998 is required. Courses should be chosen from the graduate courses list in the Course Catalogue (page 325), or with the graduate chair’s approval, from related graduate courses in other SFU departments/programs including Physical Geography Program, Departments of Chemistry, Physics, Biological Sciences, and the School of Resource and Environmental Management. Course selections will include no more than six credit hours from 700 level EASC courses.

Students must maintain a 3.0 CGPA in course work (see “1.5.1 Normal Grading System” on page 247). Failure to do so is taken as evidence of unsatisfactory progress (see “1.5.4 CGPA Required For Continuation and Graduation” on page 247).

With advance approval, a PhD student may take up to one half of the above course requirements at another university for credit toward the SFU PhD degree.

Additional course work may be assigned by the supervisory committee, based on the results of the oral candidacy examination.

In addition to their normal course work, PhD students must present two research seminars (EASC 900 and 901). At least one of these seminars should be based on completed or nearly completed thesis work. One seminar may address any earth sciences topic approved by the supervisory committee. PhD students are expected to attend all the research seminars in the department.

**Oral Candidacy Examination**

Every earth sciences PhD student must complete an oral candidacy examination prior to the end of the fourth semester of registration, or in the first semester after transferring from the MSc program.

The candidate must submit a written thesis proposal to the supervisory committee and present it at the beginning of the oral candidacy examination, which will be followed by an oral examination. The student must demonstrate an ability to conduct independent research, and have a sufficient command of the studied discipline to explain the research proposal and defend it. The examination must be successfully completed prior to undertaking any significant thesis research.

The examination concentrates on the student's major area of research and two minor areas, as agreed by the supervisory committee and the student. The examination is graded satisfactory/unsatisfactory by an examining committee consisting of the supervisory committee and one member external to the committee. Students with an unsatisfactory grade must pass a second exam within six months; a second unsatisfactory rating results in withdrawal from the program.

**Thesis**

Students define and undertake original research, the results of which are reported in a thesis and defended before an examining committee (see “1.9.3 Examining Committee for Doctoral Thesis” on page 249). Students must conform to residence requirements (see “1.7.3 Residence Requirement for the Doctoral Degree” on page 248).

The program will normally be completed in 12 semesters (four years), and not more than 15 semesters (five years).

The student's progress will be reviewed every 12 months by a supervisory committee consisting of three or more faculty members as per section 1.8.1 of the Graduate General Regulations (page 249). The senior supervisor will be an earth sciences faculty member who has been approved by the department's graduate program committee. At each annual review, the student presents a summary of his/her work to date, with the first review being the oral candidacy examination, when the thesis proposal is to be presented. Students not making satisfactory progress in their research, or failing to demonstrate satisfactory knowledge and understanding of recent publications in their general area of research, or failing to have their revised research proposal approved by the supervisory committee within 18 months of admission may be required to withdraw as per section 1.8.2 of the Graduate General Regulations (page 249).
Graduate Program

Geography Program

7123 Robert C. Brown Hall, 604.291.3321 Tel, 604.291.5841 Fax, www.sfu.ca/geography

Chair (to be announced)

Graduate Program Chair (to be announced)

Faculty and Areas of Research

See “Department of Geography” on page 171 for a complete list of faculty.

W.G. Bailey – physical climatology, giseng research
T.A. Brennand – glacial geomorphology, quaternary environments, regional paleoethnology
S. Dragicevic – geographic information science, spatial analysis and modelling
N. Hedley – geovisualization and cartography
E.J. Hickin – fluvial geomorphology
I. Hutchinson – quaternary environments, coastal studies
L.F.W. Lesack – ecosystem biogeochemistry, land and water interactions, limnology
W.L. Quinton – hydrology of cold regions, runoff processes
A.C.B. Roberts – cultural, historical, paleo environments, rock art, rock art conservation, photogrammetry
M.G. Schmidt – soil science, forest ecology
N.C. Schuurman – geographic information systems, spatial data and integration

Degrees Offered

The Department of Geography offers a program leading to the MSc degree in the Faculty of Science with emphasis on earth surface processes and environmental geoscience, specifically in aspects of geomorphology, biogeochemistry, soils, climate and hydrology; spatial information science, remote sensing, GIS and spatial analysis.

Students interested in pursuing a PhD degree in physical geography should see the Department of Geography entry in the Faculty of Arts and Social Sciences section (page 291).

Admission

Normally, MSc candidates should have a BSc GPA of 3.25 in geography or a related discipline to be considered for admission. Admission for MSc students is in the fall semester. Applications for fall admission should be completed by February 1 of that year.

MSc Committee

The MSc candidate, once admitted, works under the supervision of a faculty advisor’s guidance, pending the supervisory committee’s choice. The supervisory committee, normally consisting of two faculty members, one of whom may be drawn from outside the department, will be chosen by the start of the second semester.

Degree Requirements

All candidates for the MSc degree are expected to complete the degree requirements (30 credit hours) in six semesters. The MSc program requires the submission of a thesis (18 credit hours). The remaining 12 credit hours will be comprised of required and elective courses.

Course Work

Students complete 12 credit hours minimum (three courses) plus GEOG 600 and 601 which are non-credit courses, the grading of which is on a satisfactory/unsatisfactory basis. Attendance is compulsory to obtain a satisfactory grade. Students normally complete GEOG 606 as part of the 12 credit hours. With the advisor’s consent, this can be replaced by another course. An additional seven hours are composed of two courses from the list below, or with the graduate chair’s approval, from related graduate courses in other departments such as biological sciences, chemistry, physics, mathematics, earth sciences, resource and environmental management and computing science. Students with deficiencies may be asked to complete more course work.

Thesis

The MSc program requires the submission and successful defence of a thesis. Normally, MSc students present proposed research at a one-day conference (research day) held annually in the spring semester. A written proposal should be submitted to the student’s supervisory committee, defended in colloquium and approved, by the end of the second semester and prior to the start of substantive research. The thesis normally involves the conceptualization of a problem and the collection, analysis and interpretation of empirical data. The recommended maximum length of an MSc thesis is 120 pages (including bibliography, but excluding appendices). The completed thesis is judged by the candidate’s examining committee at an oral defence.

Courses

The following GEOG courses are offered for the Faculty of Science Geography Program: GEOG 600, 601, 606, 611, 612, 613, 614, 615, 617, 651, 653, 655, 656, 691, 697.

For a full list of GEOG courses, see “Geography GEOG” on page 387.

Department of Mathematics

K10512 Shrum Science Centre, 604.291.3331 Tel, 604.291.4947 Fax, www.math.sfu.ca

Chair

T. Archibald BMath (Wat), MA (York), MA, PhD (Tor)

Graduate Program Chairs

I. Chen BSc (Qu), DPhil (Oxf)
S. Ruuth BMath (Wat), MSc, PhD (Br Col)

Faculty and Areas of Research

See “Department of Mathematics” on page 224 for a complete list of faculty.

B.R. Alspach* – graph theory, discrete mathematics
T. Archibald – history of mathematics
J. Bell – algebra, analytic number theory, combinatorics, asymptotic enumeration
J.L. Berggren – history of mathematics, algebra
P.B. Borwein – analysis, computation, number theory
T.C. Brown* – algebra, combinatorics
N. Bruin – arithmetic geometry, number theory
I. Chen – number theory, arithmetic geometry
K-K.S. Choi – number theory, algebra
R. Choksi – calculus of variations, partial differential equations, and applications to material science
A. Das* – variational techniques; interior solutions in general relativity
L. Goddyn – combinatorics
J. Jedwab – discrete mathematics, exploratory computation, digital communication
M.C.A. Kropinski – numerical solutions of non-linear differential equations; fluid dynamics
A.H. Lachlan* – mathematical logic
Y. Lee – algebraic and computational number theory, coding theory and cryptography
A.S. Lewis – analysis, optimization
P. Lisonek – computational discrete mathematics
M. Mishra – combinatorial functional equations, algorithmic and algebraic combinatorics, computer algebra

B. Mohar – topological graph theory, graph colouring, algebraic graph theory, graphs and matrices, infinite graphs
M.B. Monagan – symbolic computation, algebra
D. Muraki – asymptotic analysis and modelling for the physical sciences, non-linear waves and dynamics, atmospheric fluid dynamics
A.M. Oberman – nonlinear partial differential equations, numerical analysis, math finance
A. Punnen – discrete/combinatorial organization and applications
N.R. Reilly* – algebra
R.D. Russell – numerical analysis; numerical solution of differential equations, dynamical systems
S. Ruuth – scientific computing, differential equations, dynamics of interfaces
C.Y. Shen* – electromagnetic scattering; large scale scientific computing
L. Stacho – graph theory, discrete mathematics
J. Stockie – fluid dynamics, scientific computing
B.S. Thomson* – analysis
M.R. Trummer – numerical analysis; differential equations, integral equations
J.F. Williams – interface rigorous and formal analysis and scientific computation for PDEs
R. Wittenberg* – nonlinear dynamics, differential equations

*emeritus

Admission

See “Graduate General Regulations” on page 245 for admission requirements. Applicants normally submit aptitude section scores and an appropriate advanced section of the Educational Testing Service’s graduate record exams. Applicants whose first language is not English will be asked to submit TOEFL results.

Co-operative Education Program

The department has introduced co-op education into its graduate program to allow students to gain work experience outside the academic sphere. Students who are currently enrolled in the MSc or PhD programs may apply.

Applied and Computational Mathematics

Admission

See “Graduate General Regulations” on page 245 for admission requirements. Applicants normally submit scores in the aptitude section and an appropriate advanced section of the Educational Testing Service’s graduate record exams. Applicants with backgrounds in areas other than mathematics, (for example, a bachelor’s degree or its equivalent in engineering or physics) may be considered suitably prepared for these programs.

MSc Program Requirements

A candidate for the MSc will normally be required to obtain a total of 26 credit hours beyond courses taken for the bachelor’s degree. These 26 hours will consist of at least four courses chosen from the list of core courses below with at least one course from each of the pairs APMA 900,901; APMA 920, 922; APMA 930, 935; a further seven credit hours at the graduate level; and a further three credit hours which may be at the graduate level or at the 400 undergraduate level. Normally courses that are cross-listed as undergraduate courses cannot be used to satisfy graduate level course requirements. The six core courses are

APMA 900-4 Advanced Mathematical Methods I
APMA 901-4 Advanced Mathematical Methods II
APMA 920-4 Numerical Linear Algebra

Simon Fraser University 2005 • 2006

Graduate School – Geography Program 319
APMA 922-4 Numerical Solution of Partial Differential Equations
APMA 930-4 Fluid Dynamics
APMA 935-4 Mechanics of Solids

In addition to this course requirement (normally completed in five semesters), the student completes a project which involves a significant computational component and submits and successfully defends a project report. This project should be completed within about one semester.

PhD Program Requirements

A PhD candidate must obtain at least a further eight graduate level credit hours beyond the MSc requirements. Candidates who are admitted to the PhD program without an MSc are required to obtain credit or transfer credit for an amount of course work equivalent to that obtained by students with a MSc. PhD candidates normally pass an oral candidacy exam given by the supervisory committee before the end of the fourth full time semester. The exam consists of a proposed thesis topic defence and supervisory committee questions on related proposed research topics. The exam follows submission of a written PhD research proposal and is graded pass/fail. Those with a fail take a second exam within six months. A student failing twice will normally withdraw.

A PhD candidate must submit and defend a thesis based on his/her original work that embodies a significant contribution to mathematical knowledge.

Graduate Course Information

See page 325 for APMA course descriptions. The APMA courses replace courses formerly labelled MATH. For MATH 800-899 descriptions, see page 418. Course descriptions for STAT 801-890 can be found on page 443. Except for selected topics courses, students with credit for a MATH labelled course may not take the corresponding APMA course for further credit.

Mathematics

MSc Program Requirements (Thesis Option)

A MSc candidate is normally required to complete at least 18 graduate credit hours beyond courses taken for the applicant's bachelor's degree. Of these, at least 12 credits should be from courses numbered 800 or above. The course work should normally involve at least two different areas of mathematics subject to the approval of the student's supervisory committee and the department's graduate studies committee. The candidate is also required to submit a satisfactory thesis and defend it at an oral examination based on the thesis and related topics (MATH 899). See “Graduate General Regulations” on page 245 for further information and regulations.

MSc Program Requirements (Project Course Option)

A MSc candidate is normally required to complete at least 30 graduate credit hours beyond courses taken for the applicant's bachelor's degree. Of these, at least 18 credits should be from courses numbered 800 or above. The course work should normally involve at least three different areas of mathematics subject to the approval of the student's supervisory committee and the department's graduate studies committee. The candidate is required to take and pass the project course MATH 880 and the examination course MATH 882. At most one unsuccessful attempt each at MATH 880 and at MATH 882 is allowed.

See "Graduate General Regulations" on page 245 for further information and regulations.

PhD Program Requirements

A PhD candidate is normally required to complete the MSc requirements (either option) and at least 12 further graduate credit hours. Of these, at least eight credit hours should be from courses numbered 800 or above. Subject to the approval of the department's graduate studies committee, a PhD candidate with a MSc is deemed to have completed the MSc requirements for the purpose of the PhD program requirements. The graduate course work should normally involve at least four different areas of mathematics subject to the approval of the student's supervisory committee and the department's graduate studies committee.

Candidates will normally be required to pass a two stage general exam. The first stage consists of successful completion of a comprehensive examination (MATH 878). In the second, students present to their supervisory committee a written thesis proposal and then defend this at an open oral defence (MATH 879). The supervisory committee evaluates the thesis proposal and defence and either passes or fails the student. A candidate cannot take either stage of the general examination more than twice. Both stages must be completed within six full time semesters of initial enrolment in the PhD program.

Students must submit and successfully defend a thesis which embodies a significant contribution to mathematical knowledge (MATH 899). See "Graduate General Regulations" on page 245 for further information and regulations.

Graduate Course Information

700 division courses may be offered in conjunction with a 400 division course. Students may not take a 700 division course if it is being offered in conjunction with a 400 division course which they have taken previously.

Department of Molecular Biology and Biochemistry

8166 South Science Building, 604.291.5630 Tel, 604.291.5583 Fax, www.sfu.ca/mbb
Chair
B.P. Brandhorst AB (Harv), PhD (Calif)
Graduate Program Chair
D.L. Baillie BSc, MSc (Br Col), PhD (Conn), Canada Research Chair
Faculty and Areas of Research
See "Department of Molecular Biology and Biochemistry" on page 229 for a complete list of faculty.

Research

For areas of research, refer to the department listed.

Admission

See "1.3 Admission" on page 245 for requirements. Applicants should normally have completed some advanced course work in a related discipline.

Degree Requirements

Students will be assigned a graduate supervisory committee which has the authority to specify an appropriate program of work to meet or exceed the minimum requirements stated below. All students are expected to attend the MBB research seminar series and to participate regularly in a journal club.

MSc Program

Course Work

Minimum requirements are 12 credit hours of graduate courses including MBB 801 and 802.

Research

A part of the MSc is original research. A thesis describing the work is submitted and defended in accordance with Graduate General Regulations.

PhD Program

Course Work

For those with a BSc or equivalent, 19 credit hours minimum is required, at least 15 of which must be graduate level including MBB 801, 802 and 806. PhD students normally enrol in MBB 806 at the earliest

Simon Fraser University 2005 - 2006
opportunity following four program semesters. With the approval of the supervisory committee, MSc students may apply to the MBB graduate program committee for transfer to the PhD program.

For those entering with an MSc, eight credit hours are required, at least six of which must be at the graduate level including MBB 802 and 806. The latter course must be taken at the first opportunity following two semesters of program registration.

**Research**

A major portion of the PhD program is original research. An original thesis which contributes new knowledge is presented and defended at the program's end according to Graduate General Regulations (page 245). In addition, all MBB PhD candidates present a public seminar on their research.

**Graduate Diploma in Bioinformatics**

The Department of Molecular Biology and Biochemistry and the School of Computing Science co-operate in offering this program. This program provides advanced education in bioinformatics for students with a bachelor's degree in molecular biology, cell biology, biochemistry, computer science, mathematics, or related disciplines. Program admission is highly competitive.

In addition to serving the needs of the scientific and business communities, this program supports students sponsored by the Canadian Institutes of Health Research (CIHR) Bioinformatics in Health Science Training Grant in which SFU is a partner with the University of British Columbia and the BC Genome Sciences Centre. Students who are not part of the CIHR program are strongly encouraged to choose their courses from those offered at SFU.

The program requires 33 credit hours, consisting of four core courses (12 hours), three elective courses (9 hours) and a minimum of two practicum rotation semesters (12 hours). Students must obtain a B or better in each course or practicum. The student's advisory committee consists of a senior mentor and two other participating faculty members drawn from the faculty at SFU, UBC and the BC Genome Sciences Centre. In consultation with mentors, students will be assigned practicums based on student needs, area of interest, and background. The results of the practicum semester must be written in journal form that will be the subject of an oral presentation. The advisory committee will grade both the oral presentation and written report.

**Core Courses**

It is recommended that all four core courses be completed in the first semester, dependent upon semester course offerings.

Students must complete one of

- CMPT 341-3 Introduction to Computational Biology
- CMPT 881-3 Special Topics in Theoretical Computing Science

and one of

- MBB 441-3 Bioinformatics
- MBB 841-3 Bioinformatics

and one of

- CMPT 505-3 Problem-based Learning in Bioinformatics
- MBB 505-3 Problem-based Learning in Bioinformatics

and one of

- CMPT 506-3 Critical Research Analysis
- MBB 506-3 Critical Research Analysis

*course is completed at SFU, BC Cancer Agency, and the centre for Molecular Medicine and Therapeutics

**course is completed at SFU and University of BC

**Elective Courses**

In each of the first, second and third semesters, students must also complete at least three elective courses in each semester from the following.

- CMPT 354-3 Database Systems I
- CMPT 740-3 Database Systems
- CMPT 770-3 Computer Graphics
- CMPT 775-3 Scientific Visualization
- CPSC 304-3 Database Management and Design†
- CPSC 504-3 Advanced Database Design and Data Mining†
- CPSC 536A-3 Topics in Algorithms and Complexity – Bioinformatics†
- MEDG 505-3 Genome Analysis†
- MBB 331-3 Molecular Biology
- MBB 435-3 Genomic Analysis (or MBB 835)†
- MBB 442-3 Proteomics (or MBB 842-3)
- MBB 659-3 Special Topics in Bioinformatics
- MBB 669-3 Special Topics in Genomics
- MBB 679-3 Special Topics in Proteomics
- MBB 831-3 Molecular Evolution of Eukaryote Genomes
- MBB 832-3 Molecular Phylogeny and Evolution
- STAT 547-3 Statistical Problems Arising in Genomics†
- STAT 890-4 Statistics: Selected Topics

†credit will be given for only one of MBB 435 or MEDG 505

‡special topics courses are given upon student demand and instructor availability

§STAT 890 is a Special Topics course and course content will vary by course offering

†CPSC 304, CMPT 354 and MBB 331 will not count toward elective requirements; they will be recommended if the student is deficient in either computational or life sciences background

*course is completed at University of BC

**Practicum Courses**

In addition to elective courses as outlined above, students take their first practicum course in their second semester, and their second practicum course in their third semester, dependent upon semester course offerings. Students complete these practicums by choosing at least two of

- CMPT 611-6 Research Rotation I (or MBB 611)*
- CMPT 612-6 Research Rotation II (or MBB 612)*
- CMPT 613-6 Research Rotation III (or MBB 613)*

*course is completed at SFU, University of BC, and BC Cancer Agency

**Courses Offered by Other Departments**

Upon the supervisory committee's recommendation and with the department graduate studies committee's approval, MBB students may take relevant courses from other departments toward their degree. Some courses of interest may include, but are not limited to CHEM 752, 754 and 811.

**Graduate Course Work at Other Universities**

With the supervisory committee's recommendation and department graduate studies committee approval, up to six credit hours taken elsewhere that didn't result in a degree may apply to requirements, but not exceed more than half the required credits in addition to MBB 801, 802 and 806.
Degree Requirements

Course Work

For a master's degree, one of the courses will be a course in the Department of Statistics and Actuarial Science. The minimum requirement is 17 credit hours, of which at least 14 must be at the graduate level and will normally include

PHY S 801-2 Student Seminar
PHY S 810-3 Fundamental Quantum Mechanics
PHY S 821-3 Electromagnetic Theory
PHY S 841-3 Equilibrium Statistical Mechanics

Additional undergraduate courses, including prerequisites to required graduate courses, may be required to remedy deficiencies in background.

Research

Part of the program is conducting original research. A thesis describing this research is submitted and defended at the conclusion of the program's conclusion.

PhD Program

Admission

To qualify for admission, a student must have a master's degree or the equivalent in physics. Also see “Graduate General Regulations” on page 245.

Degree Requirements

Course Work

The minimum requirement consists of nine hours of graduate credit beyond the master's Faculty of Science. Degree requirements must also be met.

Research

A major portion of this program is conducting original research. A thesis, embodying new and important results or original research, must be presented and defended at the conclusion of the degree program.

Admission from a Master's Program to the PhD Program

A student may be admitted from an MSc to a PhD program with a CGPA that normally will be at least 3.67 calculated over a minimum of 15 graduate level credits, and approval of the student's supervisory committee and senate graduate studies committee.

Language Requirement

In certain areas of research, familiarity with languages other than English may be important so a student's supervisory committee may require a reading knowledge of one such language.

Biophysics

Students who wish to undertake interdisciplinary work in Biophysics may apply to the Department of Physics or the Department of Biological Sciences. Those who wish to work in biophysics under special arrangements should see "1.3.4 Admission to a Doctoral Program" on page 246.

Chemical Physics

Students who wish to undertake interdisciplinary work in chemical physics may apply to the Department of Physics or the Department of Chemistry. Those who wish to work in chemical physics under special arrangements should see "1.3.4 Admission to a Doctoral Program" on page 246.

Biochemistry and Molecular Biology

See “Graduate Course Information” on page 320.

Department of Statistics and Actuarial Science

K10545 Shrum Science Centre, 604.291.3803 Tel., 604.291.4368 Fax, www.stat.sfu.ca

Chair

R.A. Lockhart BSc (BrCol), MA, PhD (Calif)

Graduate Program Chair

C.B. Dean BSc (Sask), MMath, PhD (Wat)

Faculty and Areas of Research

See “Department of Statistics and Actuarial Science” on page 235 for a complete list of faculty.

Statistics

Admission

See "1.3 Admission" on page 245 for admission requirements. Applicants whose first language is not English normally submit the Test of English as a Foreign Language results.

MSc Requirements

The program instructs students on a wide range of statistical techniques and provides experience in the practical application of statistics. The program teaches statistical expertise in preparation for a career in either theoretical or applied statistics.

PhD Requirements

A candidate will generally obtain at least 30 credit hours beyond those for the bachelor’s degree. Of these, at least 22 will be graduate courses and the remaining eight may be from graduate courses or those 400 level undergraduate courses which may be taken for credit for the BSc in statistics. Normally these courses will include STAT 801, 811 and 812 and at least four of STAT 802, 803, 804, 805, 806, 870, 880, 891.

Co-operative Education

Students in the MSc or PhD program may obtain work experience during their graduate studies by participating in the co-operative education program. Employment lasting one or two semesters with government agencies, companies or other organizations employing statisticians is arranged for qualified students. Such employment often provides the problem which forms the basis of the MSc project.
Course Catalogue
Actuarial Mathematics ACMA 325
- First Nations Studies FNST 384
- French FREN 385
- Gender Studies GDST 386
- General Studies GS 387
- Geography GEOG 387
- German GERM 390
- Gerontology GERT 390
- Greek GRK 391
- Health Sciences HSCI 391
- History HIST 392
- Humanities HUM 397
- Information Technology ITEC 398
- Interactive Arts IART 401
- Interactive Arts and Technology IAT 403
- Interdisciplinary INTD 407
- International Studies INTS 408
- Italian ITAL 408
- Japanese JAPN 408
- Kinesiology KIN 408
- Labor Studies LBST 412
- Language LANG 412
- Latin American Studies LAS 413
- Liberal Arts LBLR 414
- Liberal Studies LS 414

Linguistics LING 415
- Management and Systems Science MSSC 416
- Management and Technology MTEC 416
- Marine Science MSC 417
- Mathematics MATH 418
- Mathematics and Computing Science MACM 422
- Molecular Biology and Biochemistry MBB 422
- Nuclear Science NUSC 425
- Philosophy PHIL 425
- Physics PHYS 427
- Political Science POL 429
- Population and Public Health PPH 432
- Psychology PSYC 433
- Public Policy Program MPP 436
- Publishing Program PUB 436
- Resource and Environmental Management REM 437
- Science SCI 438
- Sociology and Anthropology SA 439
- Spanish SPAN 442
- Special Arrangements SAR 443
- Statistics STAT 443
- TechOne TECH 444
- Urban Studies URB 444
- Women's Studies WS 445

ACMA 490-3 Selected Topics in Actuarial Science
- Topics included in this course will vary from semester to semester depending on faculty availability and student interest. Prerequisite: dependent on the topic covered.

ACMA 495-3 Directed Studies in Actuarial Science
- Independent study and/or research in topics chosen in consultation with the supervising instructor. Prerequisite: written permission from the Department of Statistics and Actuarial Science undergraduate curriculum committee.

Applied and Computational Mathematics APMA

APMA 900-4 Advanced Mathematical Methods I
- Hilbert spaces. Calculus of variations. Sturm-Liouville problems and special functions. Green’s functions in one dimension. Integral equations. Prerequisite: MATH 314 or equivalent. Students with credit for MATH 900 may not take APMA 900 for further credit. Recommended: MATH 419.

APMA 901-4 Advanced Mathematical Methods II

APMA 902-4 Applied Complex Analysis
- Review of complex power series and contour integration. Conformal mapping. Schwarz-Christoffel transformation. Special functions. Asymptotic expansions. Integral transform. Prerequisite: MATH 322 or equivalent. Students with credit for MATH 836 or 902 may not take APMA 902 for further credit.

APMA 905-4 Applied Functional Analysis
- Infinite dimensional vector spaces, convergence, generalized Fourier series. Operator Theory; the
Fredholm alternative. Application to integral equations and Sturm-Liouville systems. Spectral theory. Prerequisite: MATH 900 or permission of the instructor. Students with credit for MATH 905 may not take APMA 935 for further credit.

APMA 935-4 Analysis and Computation of Models
Analysis of models from the natural and applied sciences via analytical, asymptotic and numerical studies of ordinary and partial differential equations. Prerequisite: MATH 418 and MACM 316 or equivalent. Students with credit for MATH 883 or 935 may not take APMA 935 for further credit.

APMA 939-4 Selected Topics in Mechanics of Solids
Study of a specialized area of the mechanics of solids such as composite materials, micromechanics, fracture, plate and shell theory, creep, computational solid mechanics, wave propagation, contact mechanics. Prerequisite: APMA 935 or permission of the instructor.

APMA 961-4 Selected Topics in Continuum Mechanics
APMA 982-4 Selected Topics in Mathematical Physics
APMA 990-4 Selected Topics in Applied Mathematics

Archaeology ARCH
Faculty of Arts and Social Sciences

ARCH 100-3 Ancient Peoples and Places
A broad survey of human cultural development from the late Paleolithic/Paleoindian periods (ca. 70,000 BP) to the rise of civilization and empires, in both the Old and New Worlds.

ARCH 105-3 The Evolution of Technology
A history of technology from earliest times to the beginning of the Industrial Revolution. The course will discuss the causes and effects of technological change, as illustrated by specific technological developments including stone tools, metallurgy, agriculture, etc.

ARCH 131-3 Human Origins

ARCH 200-3 Special Topics in World Prehistory
Non-specialized introductory summaries of selected regional topics in world prehistory.

ARCH 201-3 Introduction to Archaeology
A survey of methods used by archaeologists to discover and interpret the past. Examples will be drawn from selected sites and cultures around the world. Students who have taken ARCH 101 may not register in ARCH 201.

ARCH 223-3 The Prehistory of Canada
A summary review of the pre-contact native cultures of Canada, from their beginnings to the arrival of Europeans, as revealed by archaeology. Lectures focus on how and when the first humans appeared in the land now known as Canada, and how their cultures changed over time, organized in terms of eight "archaeological regions," beginning with the Atlantic coast and then moving west and north.

ARCH 226-3 The Prehistory of Religion:
Shamans, Sorcerers and Saints
Charts the emergence and changes in the expression of human religious behavior. It covers the earliest rituals of the Palaeolithic, the importance of fertility cults, ancestor cults, alliance rituals, shamans, witchcraft, and monotheism. Prerequisite: any lower division archaeology or anthropology course.

ARCH 272-3 Archaeology of the Old World
A survey of the major centres of Old World cultural development from the Palaeolithic to the Bronze Age. Basic concepts used in reconstructing prehistoric cultures, and the artificial and contextual evidence for the development of culture. Prerequisite: ARCH 100 or 201.

ARCH 273-3 Archaeology of the New World
A survey of prehistoric cultures of North and South America. The peopling of the New World, the rise of the pre-Columbian civilizations of Mexico and Peru, and the cultural adaptations by prehistoric populations to other parts of the New World. Prerequisite: ARCH 100 or 201.

ARCH 301-3 Prehistoric and Indigenous Art
Art styles and traditions of prehistoric and preliterate peoples in one or more world cultural areas.

ARCH 302-3 Art of Ancient Civilizations
A descriptive survey of the art and architecture of major ancient civilizations in Africa, Asia, the Mediterranean basin and the Americas. Prerequisite: Students with credit for Art of Ancient Civilizations when taken as a Special Topics course may not take ARCH 302 for further credit. Part of the course content will be delivered via WebCT and the World Wide Web. Students must have frequent broadband access.

ARCH 311-5 Archaeological Dating
A study of various scientific methods of dating archaeological samples, including Carbon 14, thermoluminescence, obsidian-hydration, fission track, potassium-argon, magnetic, and other dating techniques. Prerequisite: permission of department.

ARCH 321-3 Archaeology of Britain
A survey of the archaeological evidence for human occupation of the British Isles from Paleolithic to Medieval periods. This course will emphasize the interpretation of archaeological data, and for later periods, the integration of archaeological study with documentary research. Prerequisite: ARCH 201 and 272, or permission of instructor. Students with credit for Archaeology of Britain when taken as a Special Topics course may not take ARCH 321 for further credit.

ARCH 330-3 Prehistory of Latin America
Intensive study of the prehistoric cultures of Latin America. Emphasis will be on the development of the civilizations of prehistoric Mexico and Peru. Prerequisite: ARCH 273 or LAS 140. ARCH 330 is identical to LAS 330, and students cannot receive credit for both courses.

ARCH 332-3 Special Topics in Archaeology I
This course will be offered from time to time to meet special needs of students and to make use of specializations of visiting faculty members. Prerequisite: to be announced.

ARCH 333-3 Special Topics in Archaeology II
This course will be offered from time to time to meet special needs of students and to make use of specializations of visiting faculty members. Prerequisite: to be announced.

ARCH 334-3 Special Topics in Archaeology III
This course will be offered from time to time to meet special needs of students and to make use of specializations of visiting faculty members. Prerequisite: to be announced.

ARCH 335-5 Special Laboratory Topics in Archaeology
This is a laboratory course that will be offered from time to time to meet special needs of students and to make use of specializations of visiting faculty members. Prerequisite: to be announced.

ARCH 336-5 Special Topics in Prehistoric and Indigenous Art
Art styles and traditions of prehistoric and preliterate peoples in selected world cultural areas. Prerequisite: to be announced.

ARCH 340-5 Zooarchaeology
An introduction to the study of animal remains from archaeological sites. Coverage of the major concepts...
and methods used in the study of animal remains and detailed practical coverage of the vertebrate skeleton. Prerequisite: ARCH 201.

ARCH 344-3 Primate Behaviour
The evolution of the primate order and the ecology and behavior characterizing the different grades of primates, from apes to humans, monkeys, and apes. Current trends in interpreting primate behavior are emphasized. Prerequisite: ARCH 131 or any lower division biology course.

ARCH 348-5 Archaeological Conservation
An introduction to archaeological conservation, the processes affecting the condition of archaeological materials prior to excavation, during excavation, during analysis, exhibition and during reposition. Successful completion of this course will give archaeologists a good understanding of the various materials they encounter during excavation and how to preserve these artifacts and other materials. It will not qualify students to be professional archaeological conservators. Prerequisite: 6 credit hours in Archaeology, including ARCH 201. Students who have taken ARCH 350-5 Special Topics in Archaeology: Archaeological Conservation may not take ARCH 348-5 for further credit.

ARCH 349-5 Management of Archaeological Collections
The philosophy, policies and practices of the care of archaeological collections. This lecture and laboratory course treats the practical problems of designing museum programs within a framework of legal responsibilities for collections. Contemporary issues such as repatriation will be discussed. Prerequisite: three 200 division archaeology courses.

ARCH 350-0 Practicum I
First semester of work experience in the Archaeology Co-operative Education Program. Prerequisite: normally 45 semester hours with a CGPA of 3.0 and the following courses are recommended: both ARCH 131 and 201; either ARCH 272 or 273; and three of ARCH 372, 373, 376, 377, 386, 442.

ARCH 351-0 Practicum II
Second semester of work experience in the Archaeology Co-operative Education Program. Prerequisite: normally 45 semester hours with a CGPA of 3.0 and ARCH 350.

ARCH 360-5 Native Cultures of North America
A descriptive study of the cultures of North American natives north of Mexico, as they were at initial European contact, organized on a culture area basis. Native groups in each area will be discussed in terms of language and influence, historical aspects, early post-contact history and its impact on traditional ways of life, dominant ethnocentric economic/adaptive emphases, socio-political organization, religion, ceremony and warfare. Prerequisite: ARCH 201 and 273.

ARCH 365-3 Ecological Archaeology
Deals with the techniques for reconstruction of past environments, as well as the effect of environment on past settlements and people. Environment as considered in the course will encompass the presence of other settlements, and deal with relationships among settlements. Prerequisite: ARCH 201.

ARCH 370-3 Western Pacific Prehistory
The exploration of prehistoric developments in the Western Pacific region, beginning with the first traces of humans, dealing with problems in the rise of civilization, and finally tracing the voyages of the early Pacific navigators. Prerequisite: ARCH 272.

ARCH 372-5 Material Culture Analysis
Analysis and interpretation of archaeological material culture. This lecture and laboratory course combines the practical problems of recognition and interpretation of archaeological specimens, typology, seriation, and statistical procedures with the basic principles of archaeological theory. Prerequisite: ARCH 201.

ARCH 373-5 Human Osteology
A detailed study of the human skeleton with emphasis on lab and field techniques. Prerequisite: ARCH 131.

ARCH 376-5 Quantitative Methods in Archaeology
Theory, method, and operation of the application of statistical techniques to the description, classification, analysis, and interpretation of archaeological data. Prerequisite: ARCH 201, and either STAT 203 (formerly 103) or ECON 210.

ARCH 377-5 Historical Archaeology
An introduction to theory and method in North American historical archaeology. Laboratory instruction is provided in historic artifact analysis and interpretation. Prerequisite: ARCH 201 and one lower division ARCH course.

ARCH 378-3 Pacific Northwest North America
The prehistory and cultural traditions of the region. The content, antecedents, relationships, and changes in these cultures through time. Technological, socio-economic, and environmental factors in culture growth. Prerequisite: ARCH 273.

ARCH 385-5 Paleoanthropology
The relationship between culture and biology in prehistoric human evolution. The recognition and critical evaluation of the significance of the similarities and differences among fossil human types. Prerequisite: ARCH 131 and 272.

ARCH 386-3 Archaeological Resource Management
Surveys the origins, implementations, and need for archaeological heritage legislation on an international and national scale. Topical issues associated with contract archaeology, public archaeology, native heritage, and avocational societies are incorporated. Prerequisite: ARCH 201.

ARCH 390-5 Archaeobotany
An introduction to the recovery and analysis of macroscopic archaeological plant remains. The major methodological and interpretive issues in archaeobotany will be covered, with an emphasis on plant domestication in selected regions of the world. Prerequisite: ARCH 201 and either 272 or 273.

ARCH 432-5 Advanced Physical Anthropology
An intensive investigation of the theory and problem areas in physical anthropology. Prerequisite: ARCH 201, 272 and 273.

ARCH 432-6 Background to Field Work
Lectures cover the archaeological background and rationale for specific field research questions, the critical relationship in any field project between the research questions asked and the methods and techniques employed, and the craft of field work, including use of equipment, specific excavating, recording and cataloguing techniques, field safety and camp life. Prerequisite: normally taken concurrently with ARCH 433 and 434; ARCH 131 and 201; at least one group I course; permission of the department.

ARCH 433-3 Exercises in Mapping and Recording
A series of exercises in which the student must demonstrate the ability to apply the various recording and mapping skills covered in the course. The graded exercises are done individually and in teams, both on-campus and in the field. Prerequisite: normally taken concurrently with ARCH 433 and 434; ARCH 131 and 201; at least one group I course; permission of the department.

ARCH 435-6 Field Work Practicum
A practical application of the background knowledge and specific techniques of ARCH 433 and 434. It takes place in a research oriented field excavation. Evaluation of student performance is based upon assessments of efficiency and accuracy of excavation techniques/recording procedures, and upon the student’s overall contribution to the smooth functioning of the team. Prerequisite: normally taken concurrently with ARCH 433 and 434; ARCH 131 and 201; one group I course; permission of the department.

ARCH 439-5 Geoarchaeology
This course introduces the concept of archaeological sites as active constituents in natural Quaternary land-forming and land-altering systems. Lectures will focus on all processes which may have contributed to the present geomorphological contexts of archaeological sites and their sedimentary and pedological contents. Prerequisite: ARCH 201 and either 272 or 273.

ARCH 442-5 Forensic Anthropology
Current techniques in identification of recent human skeletal remains. Prerequisite: ARCH 373.

ARCH 450-0 Practicum III
Third semester of work experience in the Archaeology Co-operative Education Program. Prerequisite: normally 45 semester hours with a CGPA of 3.0 and ARCH 351.

ARCH 451-0 Practicum IV
Fourth semester of work experience in the Archaeology Co-operative Education Program. Prerequisite: normally 45 semester hours with a CGPA of 3.0 and ARCH 450.

ARCH 471-5 Archaeological Theory
The cultural, evolutionary, physical, and distributional principles which underlie the prediction and reconstruction of the past. Prerequisite: ARCH 131, 201, 272 and 273.

ARCH 479-3 Directed Readings
Directed readings for upper level students who desire to study selected topics in depth. Prerequisite: permission of the department.

ARCH 480-5 Directed Laboratory/Library/Field Research
A course in which students can undertake specific laboratory, library or field based research supervised by a faculty member. It is open to students from other departments. Prerequisite: permission of the department.

ARCH 485-5 Lithic Technology
An in-depth study of how to manufacture and analyze stone tools. Includes rock and mineral identification, stone working by students, fracture mechanics, and relevance to theoretical problems. Prerequisite: ARCH 372.

ARCH 498-5 Honors Reading
Directed readings in a selected field of study under the direction of a faculty member. Papers will be required. Prerequisite: permission of the department.

ARCH 499-5 Honors Thesis
An honors thesis of some ten to fifteen thousand words will be written under the direction of a faculty member. Prerequisite: permission of the department.

ARCH 671-5 Archaeological Theory
Critical evaluation of new approaches to the study of the human past.

ARCH 872-0 Graduate Seminar in Archaeology and Prehistory
A seminar on selected problems in archaeological science and prehistory. Grading will be restricted to satisfactory/unsatisfactory (S/U).

ARCH 873-2 Graduate Seminar in Archaeology and Prehistory
A seminar on selected problems in archaeological science and prehistory. Students may take ARCH 873 for credit once in the graduate program.
ARCH 876-5 Research Design
Seminar focusing on the development of thesis research design and data analysis.

ARCH 892-5 Directed Readings in Prehistory
Directed readings under the supervision of a faculty member in the prehistory of any selected region of the world.

ARCH 893-3 Directed Readings
Intensive readings under the supervision of a faculty member in an area of interest related to the student's program.

ARCH 894-3 Special Topics
This course will be offered from time to time to meet special needs of students and make use of specialization of visiting faculty members.

ARCH 895-5 Special Topics
This course will be offered from time to time to meet special needs of students and to make use of specialization of visiting faculty members.

ARCH 896-5 Directed Laboratory/Library/Field Research
Directed laboratory, library or field research under the supervision of a faculty member in an area of interest related to the student's program.

ARCH 896-6 MA Thesis
ARCH 896-9 PhD Thesis

Asia-Canada ASC
Faculty of Arts and Social Sciences
Department of Humanities

ASC 101-3 Introduction to Asia-Canada Studies I
An introductory course on Asia-Canada interactions. It will survey various issues, both historical and contemporary, including those involving Asian-Canadians.

ASC 102-3 Introduction to Asia-Canada Studies II
An introductory course on Asian civilizations in three areas: East Asia, Southeast Asia and South Asia. A survey course, it is designed to cover multiple dimensions of people's lives and history in Asia.

ASC 200-3 Introduction to Chinese Culture
An introduction to historical and cultural perspectives on China. Topics covered will include different aspects of traditional Chinese culture with a view to understanding contemporary Chinese society.

ASC 300-3 Asians and North Americans in Public Discourse
A cross-cultural examination of the ways we perceive and represent each other in public discourse, including literature, news media, cinema, and other education and entertainment media.

ASC 301-3 Asia-Canada Identities: Experiences and Perspectives
This course will explore the experience of Asian immigrants and their children, focusing in particular on social and cultural aspects.

ASC 302-3 Selected Topics in Chinese Studies
Content will vary according to interests of faculty and students but will involve Chinese study within one or more of the social science or humanities disciplines.

ASC 303-3 Selected Topics in Japanese Studies
Content will vary according to interests of faculty and students but will involve Japanese-related study within one or more of the social science or humanities disciplines.

ASC 400-3 Selected Topics in Asia-Canada Studies
Individual study. Prerequisite: ASC 101 or 102, and one ASC 300 level course and permission of the program director.

Biology Sciences BISC Faculty of Science

BISC 100-4 Introduction to Biology
An introduction to the biochemical and physiological mechanisms of living organisms. Topics covered include cell structure and function, DNA replication and the flow of genetic information, enzyme function, metabolism and physiology of microorganisms, plants, and animals.

BISC 101-3 The Evolution and Diversity of Life on Earth
Current theories about the origin and evolution of life on this planet. The course will include a survey of the five kingdoms to emphasize both the structural and functional diversity of living forms, as well as the characteristics shared by members of each major group. Students having credit for BISC 102 may not take BISC 110 for further credit.

BISC 202-3 Genetics
Principles of genetics and the transmission of genetic information treated comparatively in man, animal, plant and microbe.

BISC 204-3 Introduction to Ecology
An introduction to biotic-environmental relationships and dynamics; ecological concepts; population dynamics, variation, adaptation and evolution.

BISC 300-3 Evolution
The phenomenon of organic evolution, and the major forces leading to changes in allele frequencies over time, i.e. natural selection and genetic drift. Topics include adaptation, speciation, the origin of life, and the major evolutionary trends over geological time.

BISC 302-3 Genetic Analysis
Discussion and manipulations of some of the organisms and techniques applicable to genetic analysis.

BISC 303-3 Microbiology
The biology of micro-organisms and their significance in the understanding of cellular processes.

BISC 304-3 Animal Ecology
A study of the interrelationships of animals and their physical and biotic environment.

BISC 305-3 Animal Physiology
A comparative study of basic physiological mechanisms in invertebrates and vertebrates.

BISC 306-3 Invertebrate Biology
An introduction to selected invertebrate phyla with an emphasis on functional morphology, diversity and ecology.

BISC 307-3 Animal Physiology Laboratory
A laboratory course using contemporary techniques of animal physiological research.

BISC 310-3 The Natural History of British Columbia
An introduction to the natural history of British Columbia, studying the ecology, distribution, and general characteristics of organisms representative of various biotic regions of the province — terrestrial, marine or freshwater. The particular taxa and regions studied may vary between offerings. Field trips of one to four days are normally a required part of the course. Prerequisite: 75 credit hours including BISC 101 and 102.

BISC 312-3 Environmental Toxicology I
An introductory course in environmental toxicology which will concentrate on the biologist's perspective
and will “bridge the gap” between traditional biology courses and formal toxicology courses. The course is required for a minor and extended studies diploma program in Environmental Toxicology. Prerequisite: BISC 101 or 102 and 204 or EVSC 200, with grades of C- or better.

BISC 313-3 Environmental Toxicology II
This course introduces students to basic principles of toxicology and several classes of widely encountered environmental pollutants. Emphasis is on toxicology as an interdisciplinary science. This course is a prerequisite for all advanced toxicology courses. Prerequisite: MBB 221. Corequisite: BISC 312.

BISC 316-3 Vertebrate Biology

BISC 317-3 Insect Biology
Life histories, bionomics, comparative morphology, and classification of insects and related organisms. A collection may be required, depending on instructor. Prerequisite: BISC 101 and 102.

BISC 326-3 Biology of Algae and Fungi
A survey of form, function and genetics. Prerequisite: BISC 101 and 102.

BISC 329-4 Introduction to Experimental Techniques
This course is designed to introduce students to basic measurement methods and instrumentation as used in modern biology. Prerequisite: CHEM 121 and 122, MBB 221, PHYS 102, STAT 201.

BISC 333-3 Developmental Biology
Classical and modern experimental approaches will be described for understanding development of embryos of several species having common and distinctive features. These approaches are at the organismal, cellular, molecular and genetic levels. Prerequisite: BISC 202 and MBB 222. Students with credit for BISC 203 may not complete BISC 333 for further credit.

BISC 337-3 Plant Biology
An introductory course covering many aspects of plant biology including the origin and evolution of plants, basic anatomy, plant growth and development and the utilization and impact of plants in human society. Prerequisite: BISC 101 and 102.

BISC 341-0 Practicum I
First semester of work experience in the Biological Sciences Co-operative Education Program. Prerequisite: acceptance in the biological sciences co-operative education program.

BISC 342-0 Practicum II
Second semester of work experience in the Biological Sciences Co-operative Education Program. Prerequisite: BISC 341 and re-admission to the science co-operative education program.

BISC 366-3 Plant Physiology
The plant's physical environment and the physiological basis (mechanisms and principles) of the interaction between plants and their environment in relation to their survival and ecological distribution. Prerequisite: MBB 221.

BISC 367-3 Plant Physiology Laboratory
A laboratory course using contemporary techniques of plant physiological research. Prerequisite: BISC 329 and 366.

BISC 372-3 Special Topics in Biology
Selected topics in areas not currently offered within the undergraduate course offerings in the Department of Biological Sciences. Prerequisite: to be announced in the Course Timetable and Exam Schedule.

BISC 403-3 Current Topics in Cell Biology
The lectures will explore two or three major themes in current cell biology, such as cell motility, the cell cycle, and cellular signalling. A critical component of the course is to develop an understanding of the experimental basis of our knowledge about cells. Prerequisite: MBB 221 and 222.

BISC 404-3 Plant Ecology
The study of the distribution and abundance of plants, including how individuals, populations, and communities are affected by abiotic (climate, soil) and biotic (competition, herbivory) factors. A major focus will be life history evolution (pollination, defence, dispersal). Experimental and observational laboratory exercises are primarily conducted outdoors. Prerequisite: BISC 204.

BISC 405-3 Cell Physiology
The physiology of cells with emphasis on the physical and chemical nature of specialized activities. Prerequisite: BISC 307, or KIN 306, or BISC 305 and 329, all with grades of C- or better.

BISC 406-3 Marine Biology and Oceanography
An introduction to the marine environment, marine organisms and the ecological and oceanographic processes affecting them. Prerequisite: BISC 306 or 316.

BISC 407-3 Population Dynamics
An evaluation of factors influencing the natural fluctuation of regulation of animal population numbers. Prerequisite: BISC 304 or permission of the department.

BISC 411-3 Behavioral Ecology Laboratory
Illustration of the principles of behavioral ecology, and the experimental approach to its study, by means of a series of laboratory and field exercises and an individual project. Prerequisite: BISC 304 and 410. Corequisite: BISC 410 could be taken concurrently.

BISC 414-3 Limnology
An integrated examination of biological, chemical and physical processes in lakes and running water ecosystems. Interactions among biological, chemical and physical controls on the structure, function and dynamics of aquatic ecosystems are emphasized. Environmental problems resulting from human disturbances to aquatic ecosystems are examined. Prerequisite: 72 credit hours in a science program, including BISC 204 or GEOG 215, or permission of the instructor.

BISC 416-3 Fish Biology
An introduction to the biology of fishes with an emphasis on classification, evolution, anatomy, physiology, and ecology. Prerequisite: BISC 316 or permission of the department.

BISC 419-3 Wildlife Biology
Theoretical and applied aspects of ecology and behavior in relation to wildlife populations and their habitats, with emphasis on important mammals and birds in British Columbia. Attendance on local field trips is required. Prerequisite: BISC 304. Recommended: BISC 316.

BISC 422-3 Population Genetics
Theoretical and experimental aspects of inheritance at the population level. Topics include Hardy-Weinberg, one- and two-locus selection theory, introduction to quantitative genetics, and Fisher's fundamental theorem of natural selection. Prerequisite: BISC 202 and STAT 201.

BISC 425-3 Biology and Society
The objectives of this course are to demonstrate the relevance of contemporary research in biological sciences to societal concern, develop analytical skills and ability to communicate, and encourage students to evaluate the diverse perspectives that influence societal decisions about issues for which scientific analyses are significant. Course format will include lectures, discussion, guest speaker seminars, videos and student presentations. Prerequisite: BISC majors.

BISC 429-3 Experimental Techniques I: Separation Methods
Theory and practice of analytical and preparative separation methods in biology. Prerequisite: BISC 339.

BISC 430-3 Plant Pathology
Fungi, bacteria, viruses, nematodes, parasitic higher plants and insect vectors as agents of plant disease will be considered. Etiology and ecology of host-parasite relationships will be emphasized via examination of selected economically and/or aesthetically important plant diseases. Prerequisite: BISC 326 or 337.

BISC 432-3 Chemical Pesticides and the Environment
The physical, chemical and biological properties of chemical pesticides; risks and benefits associated with their use in pest management. Prerequisite: BISC 305 or 366. Recommended: for those who wish to enter the Master of Pest Management program.

BISC 434-3 Paleocology and Palynology
The principles of paleoenvironmental reconstruction, emphasizing the study of pollen grains, spores, and other microfossils in solving problems of paleobiology and earth history. Prerequisite: minimum 60 credit hours including BISC 204, or GEOG 215. Some background in botany, biogeography, or earth sciences is desirable.

BISC 435-3 Introduction to Pest Management
Survey of the nature, causes and consequences of plant pests and of the natural and applied factors and processes that determine their occurrence and intensity. Prerequisite: BISC 317, or 75 credit hours.

BISC 439-3 Industrial Microbiology
This course introduces students to the use of microorganisms in biotechnology, e.g. in the environmental, pharmaceutical and chemical industries. The lectures will cover the unique physiology/biochemistry of industrial microorganisms and their use in processes such as fermentation, bioremediation, chemical production and protein production. The laboratory component is designed as a series of exercises that form a complete research project. Prerequisite: BISC 303 or equivalent.

BISC 440-3 Biodiversity
The production and organization of biodiversity (investigations of species, and an in-depth look at taxonomy, systematics and phyllogenetics). Evolutionary and ecological theories behind the patterns of biodiversity (the current and future geographic distribution of species, and how biodiversity is related to ecosystem function). The values society gives biodiversity (how our values are reflected in law and regulation). Prerequisite: BISC 300, STAT 201 or equivalent, both with C or better, plus 75 credit hours.

BISC 441-3 Evolution of Health and Disease
Application of the principles and theories of evolution to the study of health and disease, with a particular but not exclusive emphasis on humans. Topics to be covered include the evolutionary ecology of infectious disease, the immune system, cancer, senescence, fetal programming, and the genetic/environmental bases of disease. The course will involve a combination of lectures by the primary faculty member teaching the course, discussions, student research projects (papers, written and revised, and presentations to the class), and specialist guest lectures. Prerequisite: BISC 202 or 204. Recommended: BISC 300.
BISC 443-0 Practicum III
Third semester of work experience in the Biological Sciences Co-operative Education Program. Prerequisite: BISC 342 and re-admission to the science co-operative education program.

BISC 444-0 Practicum IV
Fourth semester of work experience in the Biological Sciences Co-operative Education Program. Prerequisite: BISC 443 and re-admission to the science co-operative education program.

BISC 445-3 Environmental Physiology of Animals
A discussion of the physiological mechanisms and adaptations which permit animals to live in diverse environments. The course will adopt a comparative approach to physiology. Prerequisite: BISC 305.

BISC 446-0 Practicum V
Fifth semester of work experience in the Biological Sciences Co-operative Education Program. Prerequisite: BISC 444-0 and re-admission to the science co-operative education program.

BISC 449-3 Experimental Techniques III: Histochemistry
Techniques in histochemistry. Principles and applications of light-field—phase contrast fluorescence — and interference microscopy; microspectrophotometry. Prerequisite: BISC 329.

BISC 455-3 Endocrinology
A study of endocrine organs and their role in integrating physiological functions in animals. Prerequisite: BISC 305 and one of BISC 306 or 316.

BISC 457-3 Plant Molecular Biology and Biotechnology
An introduction to plant molecular biology and the techniques and applications of plant genetic engineering. Prerequisite: MBB 221 and MBB 222.

BISC 471-3 Special Topics in Biology
Selected topics not currently offered within the undergraduate course offerings in the department of Biological Sciences. Prerequisite: to be announced.

BISC 472-3 Selected Topics in Biology
Selected topics in areas not currently offered within the undergraduate course offerings in the Department of Biological Sciences. Prerequisite: to be announced in the Course Timetable and Exam Schedule.

BISC 473-3 Selected Topics in Biology
Selected topics in areas not currently offered within the undergraduate course offerings in the Department of Biological Sciences. Prerequisite: to be announced in the Course Timetable and Exam Schedule.

BISC 474-3 Special Topics in Biology
Selected topics in areas not currently offered within the undergraduate course offerings in the Department of Biological Sciences. Prerequisite: to be announced in the Course Timetable and Exam Schedule.

BISC 475-3 Special Topics in Biology
Selected topics not currently offered within the undergraduate course offerings in the Department of Biological Sciences. Prerequisite: to be announced in the Course Timetable and Exam Schedule.

BISC 490-5 Research Design
Prerequisite: completion of all lower division biological sciences courses, plus upper division BISC courses appropriate to the subject of the intended research as determined by the departmental undergraduate curriculum committee; completion of all physics, chemistry and mathematics requirements for the major or honors program; at the time of application, students will normally have a CGPA of 3.00 (B standing). Co-requisite: BISC 491 and 492.

BISC 491-5 Research Technique
Prerequisite: completion of all lower division biological sciences courses, plus upper division BISC courses appropriate to the subject of the intended research as determined by the departmental undergraduate curriculum committee; completion of all physics, chemistry and mathematics requirements for the major or honors program; at the time of application, students will normally have a CGPA of 3.00 (B standing). Co-requisite: BISC 490 and 492.

BISC 492-5 Research Reporting
Prerequisite: completion of all lower division biological sciences courses, plus upper division BISC courses appropriate to the subject of the intended research as determined by the departmental undergraduate curriculum committee; completion of all physics, chemistry and mathematics requirements for the major or honors program; at the time of application, students will normally have a CGPA of 3.00 (B standing). Co-requisite: BISC 490 and 491.

BISC 498-3 Undergraduate Research I
Prerequisite: 90 semester hours. A student will be permitted to enrol in this course only if he/she obtains the prior written agreement of a professor to act as research advisor.

BISC 499-3 Undergraduate Research II
A student will be permitted to enroll in this second research course only with the prior written agreement of a professor to act as research advisor. A different advisor is required than for BISC 498. Prerequisite: 90 credit hours.

BISC 601-2 Agriculture, Horticulture and Urban Pest Management
A broad range of agricultural pests and their management, with emphasis on insects, crop diseases, and weeds in greenhouses, orchards and field crops. Pest problems in urban environments, including stored products in and near buildings will also be discussed.

BISC 602-2 Forest Pest Management
Management of insect, microbial, vertebrate and plant pests of forests and forest products, including seed orchards, nurseries, dryland sorting areas. Emphasis is placed on diagnosis, decision-making, interactions and techniques for forest pest management.

BISC 603-5 Farm and Speciality Crop Pest Management
Agricultural pests and their management, with emphasis on insects and crop diseases, including garden and greenhouse pests.

BISC 604-3 Orchard Crop Pest Management
Insects, diseases, and other pests of fruit trees, including grapevines and small fruits, and their management.

BISC 605-3 Management of Animal Disease Vectors
Management of vectors, especially arthropods, of human and animal diseases, especially microbial; selected topics in epidemiology.

BISC 650-3 Environmental Risk Assessment
This course emphasizes recent development in quantitative human health risk assessment and ecological effects based risk assessment of environmental chemicals. Prerequisite: BISC 313.

BISC 651-3 Toxicity Tests I: Ecological Effects Based Tests
This course provides the basic concepts and practical experience for the application of ecologically-based toxicity tests. Prerequisite: BISC 313.

BISC 652-3 ET Tests II: Mammalian Toxicity Tests
The main focus of this course is on laboratory testing procedures currently employed in the toxicological evaluation of chemicals. Prerequisite: BISC 313 or permission of the department.

BISC 654-3 Food and Drug Toxicology
Investigates those toxic compounds in the environment which are added to, contaminate, or supplement one’s diet. Prerequisite: BISC 313 or equivalent.

BISC 655-3 Environmental Toxicology Seminar
A structured series of seminars on the recent developments of environmental toxicology.

BISC 656-6 Master of Environmental Toxicology Project
One semester experience in a university or commercial laboratory according to student’s interests. Prerequisite: acceptance into the environmental toxicology program.

BISC 657-0 Co-Op Practicum I
First work experience for MET students. Prerequisite: permission of the department.

BISC 658-0 Co-Op Practicum II
Second work experience for MET students. Prerequisite: Permission of the department.

BISC 800-1 Basic Skills for a Career in Science
Introduction to methods of writing research articles and grant proposals, preparing talks for scientific and non-scientific audiences, and writing for the media. The student-supervisor relationship and conflict resolution are also discussed.

BISC 804-3 Plant Ecology
Directed study and discussion of current literature related to terrestrial plant ecology particularly environmental relationships. Particular topics to be arranged.

BISC 805-3 Comparative Endocrinology
A comprehensive account of morphological and physiological aspects of endocrine systems in various groups of animals. Principles of methods and techniques in endocrinological research.

BISC 806-3 Evolutionary Theory
A consideration of recent advances and current controversies in our understanding of the development, diversification and adaptation of life through natural selection.

BISC 807-3 Ecological and Evolutionary Physiology
This course considers what physiology has to offer behavioral and evolutionary ecology (and vice versa), with a focus on whole organism or “integrative physiology.”

BISC 812-3 Marine Research Techniques: Scientific Diving
An introduction to the use of diving in marine/freshwater research, related underwater methodology, diving competency and current issues in marine biological research and scientific diving.

BISC 814-3 Aquatic Ecology
Current problems in the ecology of marine and freshwater environments. Topics will be selected from recent developments in physiological ecology, energetics, population ecology and community studies.

BISC 815-3 Contemporary Problems in Plant Physiology
Directed studies in modern laboratory approaches to specific areas of research.

BISC 816-3 Biology and Management of Insects
Bioclimatology, economic, ecological impact, and management of the major groups of insects, based on intensive reviews of information on representative species. Prerequisite: BISC 317 or permission of the department.
BISC 817-3 Evolution of Social Behavior
Study of the proximate and ultimate causes and consequences of alternative social systems in non-human animals.

BISC 821-1 Understanding Cells: Recent Experiments in Cell Biology
This seminar course provides a rigorous introduction to recent research in cell biology. Papers will be selected along a particular theme, but there is always a strong emphasis on the experimental basis of our knowledge about cellular mechanisms. Prerequisite: permission of the instructor.

BISC 822-1 Understanding Cells: Recent Experiments in Cell Biology
This seminar course provides a rigorous introduction to recent research in cell biology. Papers will be selected along a particular theme, but there is always a strong emphasis on the experimental basis of our knowledge about cellular mechanisms. Prerequisite: permission of the instructor.

BISC 823-1 Understanding Cells: Recent Experiments in Cell Biology
This seminar course provides a rigorous introduction to recent research in cell biology. Papers will be selected along a particular theme, but there is always a strong emphasis on the experimental basis of our knowledge about cellular mechanisms. Prerequisite: permission of the instructor.

BISC 824-3 Survival and Reproductive Strategies
An examination of strategies for resource acquisition and allocation, and the behavioral, ecological and life history means whereby organisms maximize lifetime reproductive success.

BISC 827-1 Seminar in Evolutionary and Behavioral Ecology
An introduction to the important issues, methods and philosophy of behavioral ecology, and discussion of current topics. Prerequisite: BISC 304 and 410 or permission of the department.

BISC 828-3 Models in Behavioral Ecology
An intensive survey course of current modeling techniques used for analysis of problems in behavioral ecology.

BISC 829-3 Conservation Ecology
This course will illustrate the value of applying ecological theory, particularly concerning life history and demography, to issues of management and conservation. Examination of life history characteristics and variability of individuals will demonstrate how knowledge of demography and population parameters are essential for effective conservation. Emphasis will be on vertebrate species.

BISC 838-3 Population Biology
Considers the relationship of genetic processes acting at the population level.

BISC 839-3 Industrial Microbiology
This course introduces students to the use of micro-organisms in biotechnology, e.g. in the environmental, pharmaceutical and chemical industries. The lectures will cover the unique physiology and biochemistry of industrial micro-organisms as well as discussing their use in various processes including industrial fermentation, bio-remediation, chemical synthesis and protein production (e.g. vaccines) by recombinant organisms. Prerequisite: a second or third year undergraduate microbiology course.

BISC 841-3 Plant Disease Development and Control
An examination of the major factors that lead to development of soil-associated and foliar plant diseases in cultivated crops, in relation to the nature, underlying principles, application and limitations of various types of control practices.

BISC 842-3 Molecular Physiology of Insects
An examination of hormonal and nutritional factors that influence growth and development, as well as energy metabolism in insects, with emphasis on the molecular mechanisms involved in their regulation.

BISC 843-3 Applied Behavioral Ecology
Concepts and methods from behavioral ecology and population dynamics are used to solve problems of an applied nature (e.g. pest management, harvesting policies, management of human diseases). Model building and analysis feature prominently.

BISC 844-3 Biological Controls
Principles, theory, and practice of the use of living organisms in the natural regulation and the control of organisms. Emphasis will be on parasitic insects, and include host specificity, genetics, genetic controls, and the evolution of host-parasite associations.

BISC 846-3 Insecticide Chemistry and Toxicology
The chemistry of insecticides, with emphasis on their toxicology, metabolism and molecular mechanism of action.

BISC 847-3 Pest Management in Practice
Status and special problems of research development and implementation of pest management programs in different kinds of ecosystems; consideration of factors such as management systems, economics, communication, legal and social constraints, and ethics in the practice of pest management.

BISC 848-3 Nematology
A study of the concepts of host-parasite relationships as exemplified by nematode parasites of plants and insects. Special problems associated with the nematode organism and its way of life and their relevance to crop production. Prerequisite: permission of the department.

BISC 849-6 Master of Pest Management Thesis
An independent research thesis based on laboratory or field-based research and focused on some aspect of pest management. The research may be supervised by any faculty member in the Department of Biological Sciences.

BISC 850-3 Weed Biology and Control
A survey of the biological and ecological characteristics of weeds, the types and magnitudes of damage they cause, and the theory and principles of control.

BISC 851-3 Vertebrate Pests
Evaluation of the biology of vertebrates that are in conflict with human activities; discussion of control strategies and economic and social impacts.

BISC 852-3 Biology of Animal Disease Vectors
Physiological, molecular, and behavioural interactions between parasites of human importance and their insect vectors. Emphasis is placed on current literature relating to modern approaches in reducing parasite transmission.

BISC 854-3 Ecotoxicology
The proposed course will detail the physicochemical factors that influence contaminant behavior in aquatic and terrestrial ecosystems. Prerequisite: BISC 101, 312, CHEM 102, and 103. Recommended: BISC 414.

BISC 855-3 Biochemical Toxicology
This course examines the biodynamics and actions of toxicants on several key biological systems within living organisms at the biochemical and molecular levels. Prerequisite: BISC 313.

BISC 856-3 Industrial Biotechnology
This course is intended to provide students with the theory and hands-on experience of several commonly used biotechnological techniques. Prerequisite: BISC 221 and 303. Recommended: BISC 329.

BISC 859-3 Special Topics I
Selected topics in biological science. The content of this course varies from semester to semester.

BISC 869-3 Special Topics II
Special Topics II

BISC 879-3 Special Topics III
Special Topics III

BISC 881-3 Special Topics in Cell and Molecular Biology
A student participation seminar course focusing on recent literature on selected topics in cellular, developmental, and molecular biology. Prerequisite: permission of the instructor.

BISC 883-3 Special Topics in Environmental Toxicology
Special topics course with emphasis on recent developments in environmental toxicology.

BISC 884-3 Special Topics in Pest Ecology and Management
A course that provides graduate students with an in-depth analysis of a topic in pest ecology and management. The course content will change from year to year to reflect student interests and topical research, and can be taught by any faculty member of the Department of Biological Sciences.

BISC 885-3 Special Topics in Animal Physiology
Special topics in comparative vertebrate and invertebrate functional mechanisms and adaptations. Prerequisite: undergraduate course in animal physiology.

BISC 886-3 Special Topics in Marine and Aquatic Biology
Special topics course emphasizing recent developments in the area of aquatic and marine biology.

BISC 887-3 Special Topics in Plant Biology
Advanced treatment of selected topics or specialized areas in plant biology. The special topics to be discussed will vary from semester to semester.

BISC 888-1 Directed Readings in Biology
Programs of directed readings and critical discussions offered by staff members to individual students. A formal description of the study program is required (forms available from the graduate secretary). These forms must be approved by the departmental graduate studies committee at the beginning of the semester, prior to registration.

BISC 889-2 Directed Readings in Biology
Intended to cover the same ground as a normal graduate course, it may be given to one or two students when a lecture/seminar is inappropriate.

BISC 890-3 Directed Readings in Biology
Programs of directed readings and critical discussions offered by staff members to individual students. A formal description of the study program is required (forms available from the graduate secretary). These forms must be approved by the departmental graduate studies committee at the beginning of the semester, prior to registration.

BISC 896-6 MSc Thesis
BISC 899-6 PhD Thesis

Business Administration BUS

Faculty of Business Administration

BUS 130-3 Business in the Networked Economy I
The management and operation of business, including the principles, concepts, ideas and tools used by managers. Management in the contemporary world of high technology is emphasized, featuring examples and cases involving high-tech firms. In
addition, the course exposes students to international and local business issues, and to large companies as well as to smaller, entrepreneurial firms. Students with credit for TECH 128, 129 and 130 may not take this course for further credit.

BUS 131-1 Business in the Networked Economy II

Introductory knowledge and skills for developing business goals, vision, direction and ultimately a successful business plan are emphasized. Marketing and financial planning, the context of development of a business plan is addressed, including elements of the marketing mix (product planning, market selection, proximity pricing and distribution), and key concepts associated with analyzing financial resources. Prerequisite: BUS 130. Students with credit for TECH 131, 132 and 133 may not take this course for further credit.

BUS 207-3 Managerial Economics

Emphasis is upon the relevance of economic models to business decision-making and, in particular, upon the rational analysis of choice alternatives within the firm. Course also covers issues of optimizing techniques and analysis of risk, demand, production and profit in addition to examination of long-term investment decisions and business forecasting. Prerequisite: ECON 103, 105; MATH 157; 15 credit hours. Students with credit for ECON 301 or BUS 307 may not take BUS 207 for further credit.

BUS 225-0 Co-Op Practicum I

This is the first semester of work experience for students in the Co-operative Education Program. It provides an opportunity to integrate theory and practice. This course is open only to co-op students. The co-op program co-ordinator must be contacted at the beginning of the semester prior to registration for this course.

BUS 237-3 Introduction to Computers and Information Systems in Business

An introduction to computer based information systems and to their applications in business, including a discussion of issues involved in the use of information systems by management. The course also provides hands on tutorial experience in the use of computers, with particular emphasis on business applications of micro computers. Prerequisite: 15 credit hours. Students who have obtained credit for, or are currently enrolled in a computing science course at the 2nd level or higher may not take BUS 237 for further credit. Students may not receive credit for both BUS 237 and 337.

BUS 242-3 Introduction to Financial Management

This course is designed to introduce students to the concepts and techniques of corporate financial analysis. The goal is to provide them with the skills and understanding necessary to apply financial tools in a work-related context. Three primary financial functions are considered: management of working capital, the investment decision, and funds acquisition. The course also covers issues from financial accounting related to the development of financial statements and financial statement analysis. Prerequisite: MATH 110. Special Instructions: This course is open only for credit to students in the integrated studies program within the bachelor of general studies degree.

BUS 251-3 Financial Accounting I

An introduction to financial accounting, including accounting terminology, understanding financial statements, analysis of a business entity using financial statements. Includes also time value of money and a critical review of the conventional accounting system. Prerequisite: 15 credit hours.

BUS 254-3 Managerial Accounting I

Theory and methods of cost compilation for managerial planning, control and decision making; the use of budgets and analysis in planning and controlling operations; establishing supervisory and departmental responsibility, and various techniques of measuring results. Prerequisite: BUS 251; 15 credit hours. Students with credit for BUS 324 or 328 may not take BUS 254 for further credit.

BUS 272-3 Behaviour in Organizations

Theories, concepts and frameworks in the field of organizational behavior with an emphasis on individual and team processes. Core topics include employee motivation and performance, stress management, communication, work perceptions and attitudes, decision-making, team dynamics, employee involvement and conflict management. Prerequisite: 15 credit hours; one of ENGL 101, 102, 103, 104, 105, 199, PHIL 101, 100, 120.

BUS 303-3 Business, Society and Ethics

This course examines and reviews contemporary thinking on the changing role of business and business persons in the operations of society, particularly Canadian society. The course explores the changing legal, ethical and regulatory environments of business focusing on the critical alliances — technology and legal approaches — between the modern organization and its broader public. Prerequisite: 60 credit hours.

BUS 312-4 Introduction to Finance

Role and function of financial managers, financial analysis, compound interest valuation and capital budgeting, management of current assets, introduction to financial instruments and institutions. Prerequisite: BUS 254 (or 324); 60 credit hours. Recommended: BUS 207 or ECON 301. BUS 315-4 Investments

Investments from an individual and institutional point of view. Topics include: bond valuation and the term structure of interest rates, stock valuation, portfolio theory, asset pricing models, efficient markets and portfolio performance evaluation. Prerequisite: BUS 312, 336 and 207 or ECON 301; 60 credit hours.

BUS 316-3 Derivative Securities

The role derivative securities, mainly options and futures contracts, play in financial markets and enhancing profit opportunities. Valuation of derivative securities. The organization of options and futures markets and the mechanics of trading. Prerequisite: BUS 312, 336; 60 credit hours. Students with credit for BUS 416 may not take BUS 316 for further credit.

BUS 319-3 Integrative Financial and Managerial Accounting

For students planning further course work in accounting. Its integrative approach includes financial and managerial accounting topics, alternative accounting models, accounting systems and accounting data management, international accounting and accounting ethics. Prerequisite: BUS 254 (or 324 or 328), 237 and 60 credit hours. Students with credit for BUS 252 may not take BUS 319 for further credit. BUS 254 can be taken concurrently with BUS 319.

BUS 320-3 Financial Accounting: Assets

In-depth coverage of the accounting methods, problems and limitations associated with assets. Alternative valuation bases will be emphasized and illustrated together with the impact of income integration of theory and practice in relation to the treatment of assets. Prerequisite: BUS 319; 60 credit hours.

BUS 321-3 Financial Accounting: Equities

In-depth coverage of accounting, methods, problems, and limitations, associated with liabilities and owners' equity. An introduction to the unique aspects and issues of accounting for not-for-profit organizations will also be provided. Prerequisite: BUS 320-3; 60 credit hours.

BUS 325-0 Co-Op Practicum II

This is the second semester of work experience for students in the Co-operative Education Program. It provides an opportunity to integrate theory and practice. This course is open only to co-op students. The co-op program co-ordinator must be contacted at the beginning of the semester prior to registration for this course.

BUS 326-0 Co-Op Practicum III

This is the third semester of work experience for students in the Co-operative Education Program. It provides an opportunity to integrate theory and practice. This course is open only to co-op students. The co-op program co-ordinator must be contacted at the beginning of the semester prior to registration for this course.

BUS 327-0 Co-Op Practicum IV

This is the fourth semester of work experience for students in the Co-operative Education Program. It provides an opportunity to integrate theory and practice. This course is open only to co-op students. The co-op program co-ordinator must be contacted at the beginning of the semester prior to registration for this course.

BUS 329-4 Income Tax for Business

Decision-Making

An examination of the underlying principles, concepts and methodology of income taxation in Canada, with emphasis upon the use of current reference sources. The course focus will be upon business taxation. Prerequisite: 60 credit hours. Corequisite: BUS 320 or permission of Faculty.

BUS 336-4 Data and Decisions II

This course is an extension of BUEC 232. It develops and applies the quantitative models that are most directly relevant to business decisions. Beginning with material on multiple regression and forecasting modeling, the course moves on to decision analysis, business simulation, quality control, and an introduction to optimization. Prerequisite: MATH 157 and BUEC 232, 60 credit hours.

BUS 341-3 Fundamentals of Marketing for Integrated Studies Program

This course is intended to be a first course in marketing management. Its purpose is to present students with the fundamentals of the marketing management process and of the importance of marketing in general. You will also develop some insight into the complex area of marketing decision-making and what marketing managers need to know to be effective. By applying fundamental marketing concepts, students will be able to solve real life marketing problems. Particular emphasis will be placed on understanding consumer behavior and segmentation analysis, the management of promotion, product-related decision-making and market distribution. Uncontrollable environmental elements pertinent to marketing planning will also be discussed. Prerequisite: 60 credit hours. This course is open only for credit to students in the Integrated Studies Program within the bachelor of general studies degree.

BUS 343-3 Introduction to Marketing

The environment of marketing; relation of social sciences to marketing; evaluation of marketing theory and research; assessment of demand, consumer behavior analysis; market institutions; method and mechanics of distribution in domestic, foreign and overseas markets; sales organization; advertising; new product development, publicity and promotion; marketing programs. Prerequisite: 60 credit hours.

BUS 344-3 Business to Business Marketing

This course deals with the marketing of products and services to industrial and other non-consumer sector
Graduate courses are numbered 500-999

Buyers. The student will be expected to apply previously acquired marketing skills to purchasing situations which arise between organizations. Due to the nature of manufacturing activity in this province, industrial management is approached from a resource industry based standpoint where discussions permit. Prerequisite: BUS 343; 60 credit hours.

BUS 346-3 International Business
Study of international environment and its impact on business behavior: cultural, social, economic and institutional factors; major functions of international business; export and import trade, foreign investment, production and marketing operations; theoretical principles, government policies, business practices. Prerequisite: 60 credit hours.

BUS 347-3 Consumer Behavior
A study of the manner in which decisions are made in the market place, by both the ultimate consumer and the industrial buyer. Course will include consideration of consumer decision processes, individual and group influences and special cases such as brand loyalty and consumerism. Prerequisite: BUS 343; 60 credit hours.

BUS 360-3 Business Communication
This course is designed to assist students to improve their written and oral communication skills in business settings. The theory and practice of business communication will be presented. Topics include analysis of communication problems, message character, message monitoring, message media. Exercises in individual and group messages and presentations will be conducted. Prerequisite: 60 credit hours.

BUS 362-4 Information Analysis and Systems Design
The course focuses on the various issues involved in investigating, analyzing and designing systems, and the strategies used to manage the process. In addition, students will make use of computer-aided software engineering (CASE) tools in laboratory, performing their systems analysis and design. Prerequisite: BUS 237; 60 credit hours.

BUS 364-3 Information Systems in Organizations and Society
This course is directed at the student as a consumer and a manager of systems within organizations, and as a member of society. We will discuss the use of information technology in the functional areas of business as a method of control as well as its implication in improving the efficiency and effectiveness within organizations. The student will be encouraged to form his/her own opinions about this very pervasive technology. Prerequisite: BUS 237; 60 credit hours.

BUS 374-3 Organization Theory
This course will examine theories of organization which use the organization as a basic unit of analysis. It will show how the structure and internal processes of an organization are linked to and partially determined by forces in the external environment of the organization. Contextual factors such as the technological and corporate strategy of the organization will also be examined. Prerequisite: 60 credit hours; BUS 272 (or 372).

BUS 380-3 Comparative Management
This course examines the major similarities and differences in management systems and practices in a variety of countries, including western Europe, East Asia, Middle East, and Latin America. Topics include the following: comparative management frameworks, managing cultural differences, cross-cultural business negotiations, and international human resource management. Prerequisite: BUS 272; 60 credit hours. Students with credit for BUS 430 may not take BUS 380 for further credit. Recommended: BUS 346.

BUS 381-3 Intro to Human Resource Management
Subjects include human resource planning, job analysis and design, recruitment, employment equity, selection techniques, performance appraisals, compensation and benefits, training and development, occupational health and safety, and industrial relations. For each subject an overview of current Canadian issues and practices is presented. Prerequisite: BUS 272 (or 372); 60 credit hours.

BUS 383-3 Commercial Law
Common law, equity, and statute law; contracts, agency, and negotiable instruments; partnership and corporation law; international commercial law. Prerequisite: 60 credit hours. BUCF 391 is not to be taken concurrently with BUS 393.

BUS 384-3 Selected Topics in Business Administration
The subject matter will vary from semester to semester depending upon the interest of faculty and students. Prerequisite: permission of the Faculty; 60 credit hours.

BUS 395-3 Selected Topics in Business Administration
The subject matter will vary from semester to semester depending upon the interest of faculty and students. Prerequisite: permission of the Faculty; 60 credit hours.

BUS 403-3 Seminar in Business and Society
Advanced topics in business and society. Specific emphasis may vary and may include the evolution of the business system in Canada, foreign investment and its impact, consumerism, environmental protection, business ideologies, etc. Prerequisite: 90 credit hours. BUS 360.

BUS 410-3 Financial Institutions
An examination of financial institutions and the markets in which they operate. Topics may include: institutional structure, financial contract forms, valuation and pricing relationships, financial intermediation, financial transacting, the regulatory environment, risk measurement and hedging strategies. Prerequisite: BUS 315, 316, 360; 60 credit hours.

BUS 413-4 Corporate Finance
Corporate decisions in the context of financial markets. Topics include: real asset investments, financing alternatives, dividend policy, working capital management, and corporate securities valuation. Prerequisite: BUS 315, 316, 360; 60 credit hours.

BUS 417-4 Security Analysis
This course covers the historical, theoretical and practical issues involved in the market valuation of securities. Three general areas are studied: valuation of fixed income securities; valuation of equity securities; and topics in portfolio management. Prerequisite: BUS 315, 316, 360; 60 credit hours. Students who have taken BUS 492 under the topic Security Analysis may not take BUS 417 for further credit.

BUS 418-3 International Financial Management
An introduction to international financial markets and institutions and to the management of assets and liabilities in an international/multinational setting. Topics to be covered include: exchange rate determination and management of foreign exchange risk; interest rate swaps; international portfolio management; comparative markets; and country risk. Prerequisites: BUS 315, 316, 360; 60 credit hours.

BUS 419-3 Advanced Derivative Securities
This is a second course in derivative securities. Topics may include: extensions of the Black-Scholes model, pricing of American options, interest rate derivatives, complex derivatives and real options. Prerequisite: BUS 215, 316, 360; 60 credit hours.

Students who have taken BUS 493 under the topic Advanced Derivative Securities may not take BUS 419 for further credit.

BUS 420-3 Advanced Accounting
In-depth coverage of advanced accounting topics, specifically issues relating to business combinations and foreign currency. Course is also given to the interpretation and analysis of financial statements. Prerequisites: BUS 321, 360; 60 credit hours.

BUS 421-3 Accounting Theory
Consideration of methods by which accounting theory is developed and examined. Specific models including historical costs, replacement costs, resale price and price level adjustment models. Prerequisites: BUS 321, 360, BUS 267 or ECON 301; 60 credit hours.

BUS 424-3 Managerial Accounting II
Process costing; joint and by-product costing; inventory planning and control; cost accounting and statistical methods, relationship to operations research. Prerequisites: BUS 319, 336, 360, 75 credit hours.

BUS 425-0 Co-Op Practicum V
This is the fifth semester of work experience for students in the accounting Co-operative Education Program. It provides an opportunity to integrate theory and practice. This course is open only to accounting co-op students. The co-op program co-ordinator must be contacted at the beginning of the semester prior to registration for this course.

BUS 426-3 Auditing Concepts and Methods
A study of the conceptual foundations and the nature and purpose of the external audit function. The course will also discuss some of the more recent developments in auditing such as comprehensive auditing, computer auditing, and the use of statistical methodology in auditing. Prerequisite: BUS 321, 360 and 60 credit hours.

BUS 431-3 Business with East Asian Countries
This course examines the opportunities and challenges of doing business with the Pacific Rim countries such as China, Japan and Korea. Topics include the following: the political and economic systems as they affect foreign investment; social and cultural systems as they affect management practices; the conduct of business negotiations for market entry; and marketing strategies. Prerequisite: BUS 346; 360 and 60 credit hours.

BUS 432-3 International Human Resource Management
Significance of multinational complexity and diversity (cultural, economic, demographic, etc.) to the human resource function. Interplay among human resource functions (employee procurement, allocation, utilization), types of employees, and countries of operation. Prerequisite: BUS 360, 381; 60 credit hours. Recommended: BUS 346.

BUS 435-3 Management of International Firms
Strategic requirements for the management of multinational corporations. Firm-specific and institutional challenges facing global managers in formulating and implementing profitable strategies. Prerequisite: BUS 346, 360; 90 credit hours.

BUS 437-3 Decision Analysis in Business
A seminar in the use of Bayesian techniques in business decisions. Prerequisite: BUS 336, 360; 60 credit hours.

BUS 440-4 Simulation in Management Decision Making
Development and use of simulation models as an aid in making complex management decisions. Hands on use of business related tools for computer simulation. Issues related to design and validation of simulation models.
models, the assessment of input data, and the interpretation and use of simulation output. Prerequisite: BUS 336, 360; 60 credit hours.

BUS 442-4 Introduction to Marketing Research
A course in the management of marketing research. The basics of the design, conduct, and analysis of marketing research. Prerequisite: BUS 343, 336, 360; 60 credit hours.

BUS 443-5 Analysis of Data for Management
The analysis and interpretation of data, particularly multivariate data. This course is complementary to BUS 442 but may be taken independently. Applications in management science and information systems, organizational behavior and other areas as well as in marketing will be examined. Prerequisite: BUS 343, 336, 360; 60 credit hours.

BUS 446-4 Marketing Strategy
Marketing strategy focuses on the analysis of market problems and opportunities and the development of appropriate strategies. Topics include: analytical techniques, strategic planning methods and managerial problems of planning. Case analysis and problem solving will be the major orientation of the course. Prerequisite: BUS 312, 347, 360; 60 credit hours.

BUS 477-3 Global Marketing Management
The marketing of goods and services in an international context, with emphasis on Pacific Rim countries. Theoretical concepts, environmental influences, Researching and forecasting international markets. The management of international marketing. Prerequisite: BUS 343, 360; 60 credit hours. Recommended: BUS 346.

BUS 488-4 Advertising and Sales Promotion
An integrative approach to the study of promotion including advertising, public relations, personal selling and sales promotion; evaluation of the role promotion has in marketing and the economy; formulation and analysis of promotional goals, planning, organizing and controlling; utilization of market research studies; forecasting, budgeting, media selection; promotion institutions. Prerequisite: BUS 347, 360; 60 credit hours.

BUS 494-3 Ethical Issues in Marketing
A critical examination of topics such as consumerism, marketing ethics, and social responsibility, efficiency of marketing or ecological marketing. The particular emphasis may vary depending on the interests of the class and instructor. Prerequisite: BUS 343, 360; 60 credit hours.

BUS 462-4 Management Support Systems
This course is designed to familiarize the student with theories, tools and techniques for management support systems. The course will cover topics from decision support systems (DSS), executive support systems (ESS), expert systems (ES). It will cover a variety of DSS, ESS and ES tools ranging from spreadsheets to fourth generation languages accessing corporate databases, to expert system shells and executive support system builders. Prerequisite: BUS 336, 360, 362 (or 364); 60 credit hours.

BUS 463-3 Managing Data Communications
The students will be exposed to business issues in the planning, implementation and management of data communications in organizations. They will study the changes taking place in the industry as a result of new data communications technology. Also, they will become familiar with the various technical levels of communications systems, and the various standards and configurations that are currently being used. The Novel NetWare LAN system will be used as an example of a communications system, to demonstrate issues and operations required of a communications network manager. Prerequisite: BUS 360, 362 (or 364); 60 credit hours.

BUS 468-3 Management Issues in Information Systems
The focus of this course is on the management, not the technical, issues surrounding Information Technology. Using cases, the course will introduce various theories and models of the management of information technology (IT), the application of IT to management situations, and some of the current issues surrounding IT. Prerequisite: BUS 360, 364; 60 credit hours. Corequisite: BUS 462 and/or 466 can be taken concurrently with BUS 468.

BUS 472-3 Seminar in Organizational Behavior
Advanced topics in organizational behavior. Syllabus emphasis may vary depending on special interest of faculty. However, general content will extend basic theories and problem descriptions covered in BUS 272 and 374 and will include advanced organizational theory and special topics in personnel. Prerequisite: BUS 272 (or 372) or 374; 60 credit hours.

BUS 473-4 Operations Management
The management of operating systems including allocation and scheduling of resources; control of costs, inventories, quality, and manpower; design of operating systems including layout, layout and manpower; establishment of work methods and standards. Prerequisite: BUS 336, 360; 60 credit hours.

BUS 477-4 New Venture Planning
Emphasis will vary but may include in any given semester consideration of small business in the Canadian economy, career comparisons in small and large businesses, evaluation of new ventures, organization, capitalization, planning, marketing and financial management. Prerequisite: BUS 312, 343, 360; 90 credit hours.

BUS 478-3 Seminar in Administrative Policy
Integration of the various areas of business for the purpose of analyzing and recommending strategies for planning and decision-making within the firm and a defined environment. Prerequisite: BUS 207, 312, 343, 360 and either BUS 374 or 381; 90 credit hours.

BUS 480-3 Negotiation/Conflict Resolution for Integrated Studies Programs
Overall, the course will be a combination of theory, discussion, instructor demonstration, skill practice in large and small groups and small group practice of the four-stage negotiation/conflict resolution model/process. The students in this course will learn about and be able to discuss interest-based negotiation and conflict resolution theory, strategize and plan for various negotiations and conflict situations and be able to put into practice a practical, efficient and productive process for negotiating agreements and resolving conflict. Prerequisite: BUS 360; 60 credit hours. This course is only open for credit to students in the Integrated Studies Program within the bachelor of general studies degree.

BUS 482-3 Reward Systems and Employee Development
The design and administration of reward systems and employee development programs. How these systems and programs are affected by internal and external factors such as organizational goals, corporate strategy, technology, labor markets, and government regulations. Prerequisite: BUS 272 (or 372), BUS 360, 381; 60 credit hours.

BUS 484-3 Workplace Industrial Relations
The administration of the day-to-day employment relationships of both unionized and non-unionized settings. Workplace industrial relations as a system of resolving conflicts between employee and employer interests and its implications for the attainment of due process in the workplace and the flexibility and efficiency of work organization. Prerequisite: BUS 360; 60 credit hours; one of BUS 381 or BUEC 384.

BUS 487-3 Organizational Development and Change
This course examines the underlying concepts, principles and assumptions of organizational development. Throughout the course, organizations are viewed as systems composed of subsystems in dynamic interaction. Prerequisite: BUS 360, 60 credit hours, BUS 374 or 381.

BUS 488-3 Human Relations in Business
The study of individual and group behavior in business organizations; management-employee relations; systems of communication; role and status; compensation, motivation, morale and productivity; organizational conflict, change and balance. Prerequisite: BUS 360, 60 credit hours, BUS 374 or 381.

BUS 490—491-3 Selected Topics in Business Administration
The subject matter will vary from semester to semester depending upon the interest of faculty and students. Prerequisite: permission of the faculty; 60 credit hours.

BUS 492—495-3 Selected Topics in Business Administration
The subject matter will vary from semester to semester depending upon the interests of faculty and students. (Seminar) Prerequisite: permission of the faculty; 60 credit hours.

BUS 496-5 Selected Topics in Business Administration
The subject matter will vary from semester to semester depending upon the interests of faculty and students. Prerequisite: permission of the faculty; 60 credit hours.

BUS 498-3 Directed Studies
Independent reading and research on topics selected in consultation with the supervising instructor. Prerequisite: permission of the faculty; 60 credit hours.

BUS 499-5 Directed Studies
An intensive and independent reading and research course on topics selected in consultation with the supervising instructor, and approved by the dean of the faculty. Prerequisite: permission of the faculty; 60 credit hours.

BUS 550-2 Financial Accounting
Concepts and principles in financial accounting from the user perspective.

BUS 551-2 Managerial Accounting
The use of accounting information for managerial decisions. Prerequisite: BUS 550 or equivalent.

BUS 552-4 Managerial Economics
Applications of economic theory to business problems.

BUS 553-2 Quantitative Business Methods
The use of quantitative or statistical techniques in managerial decision making.

Simon Fraser University 2005 • 2006
Undergraduate courses are numbered 001-499
BUS 554-2 Management Information Systems
The design and implementation of information systems to provide appropriate and timely information to management.

BUS 555-4 Managerial Finance
An overview of investment and financing decisions of the firm, including valuation, capital expenditures, financial markets, dividend and financial policy. Prerequisite: BUS 550 and 553 or equivalent.

BUS 556-4 Marketing Management
An introduction to the application of pricing, promotion, channel selection and product planning to marketing decisions.

BUS 557-4 Human Relations
Management/Organization Behavior
Issues in the behavior of people in organizations, and human resource management practices that influence employee behavior.

BUS 558-3 Special Topics
BUS 559-4 Special Topics
BUS 560-3 Directed Studies
Prerequisite: requires prior permission of the academic director.

BUS 561-2 Special Topics
BUS 562-2 Special Topics
BUS 601-2 Data and Decision-Making
This course explores the application of quantitative methods to managerial decision-making. Topics will include data analysis and statistical description, sampling and statistical inference, and regression analysis. Case studies are used to help managers cope with decision-making in complex and uncertain circumstances.

BUS 602-4 The Global Business Environment
This course will examine the international context of business. Fundamental concepts in international finance, economics and business will be introduced and significant trends in the world economy will be analysed. Topics might include global trends in monetary and fiscal policy, exchange rate analysis, trends in international trade and investment, analysis of emerging markets, and strategic alliances. The human, cultural and ethical issues arising from doing business abroad will be discussed.

BUS 603-4 Structure and Change in Organizations
This course applies contemporary organizational theory to the managerial challenges of entrepreneurial, corporate, public sector and not-for-profit organizations in the areas of organizational structure and change, adapting the organizations to their changing environment, and articulating alternate plans for organizational survival (and where possible, growth).

BUS 604-4 Organizational Change and Development
An examination of the concepts, principles and assumptions of organization development.

BUS 606-4 Financial Management
Finance is the study of investments; these investments are made by firms in their operative activities and by persons in their financial portfolios.

BUS 607-4 Business Strategy
Analysis of strategic issues affecting the success of the total enterprise and business units. The course includes industry analysis, internal analysis of the firms' skills, resources and capabilities, corporate and business level strategies, the process of doing strategic analysis, the relationship between strategy and management, and the basic design of a plan of implementation for a strategic plan.

BUS 610-2 Directed Studies in Business Administration
Individual study with a faculty member. The course outline must be approved by the graduate program committee.

BUS 611-4 Directed Studies in Business Administration
Individual study with a faculty member. The course outline must be approved by the graduate program committee.

BUS 612-4 Directed Studies in Business Administration
Individual study with a faculty member. The course outline must be approved by the graduate program committee.

BUS 615-4 Marketing Management
An analysis of the strategic consideration of marketing management and their impact on the firm and its competitors.

BUS 621-4 Information Technology and Organizational Transformation
A seminar format will be used to discuss the concepts and frameworks essential to the effective management of information technology. Our focus will be on the strategic role that information systems play in organizations, their structure and components, and various perspectives on how to plan and manage this technology.

BUS 632-2 Operations Research
Quantitative methods to cope with problems of complexity, uncertainty, and lack of information in organizational decision-making.

BUS 651-4 Managerial Economics
The application of modern microeconomic theory to problems of managerial decision-making. The importance of both economic models and quantitative applications are explored. Topics include demand, cost and productivity analysis; the analysis of market structure and firm strategy, international competition and trade; organizational economics; and the analysis of risk, uncertainty and information.

BUS 652-2 Special Topics in Business Administration
Course content varies from semester to semester. Specific course outlines must receive prior approval of the graduate program committee.

BUS 653-2 Special Topics in Business Administration
Course content varies from semester to semester. Specific course outlines must receive prior approval of the graduate program committee.

BUS 654-2 Special Topics in Business Administration
Course content varies from semester to semester. Specific course outlines must receive prior approval of the graduate program committee.

BUS 655-2 Special Topics in Business Administration
Course content varies from semester to semester. Specific course outlines must receive prior approval of the graduate program committee.

BUS 660-4 Special Topics in Business Administration
Course content varies from semester to semester. Specific course outlines and bibliographies must receive prior approval of the graduate program committee.

BUS 662-4 Special Topics in Business Administration
Course content varies from semester to semester. Specific course outlines and bibliographies must receive prior approval of the graduate program committee.

BUS 670-4 Financial and Managerial Accounting
Analysis of financial statements and their role in organizational life. Development of perceptual and communication skills in small groups. Leadership theory and work group behavior.

BUS 681-4 Organizational Leadership and Interpersonal Behavior
Interpersonal relations and group dynamics in organizational life. Development of perceptual and communication skills in small groups. Leadership theory and work group behavior.

BUS 684-8 Industrial Relations
Collective bargaining, the collective agreement, work stoppages, arbitration and the legal environments.

BUS 688-2 Special Topics in Business Administration
Course content varies from semester to semester. Specific course outlines and bibliographies must receive prior approval of the graduate program committee.

BUS 691-4 Business and Government
This course provides a survey of the relationship between business and government. The course examines the rationale for and nature of government intervention, the impact of public policies on business and the interactions among government, business and society.

BUS 696-6 Applied Project
Students will undertake a strategic firm analysis or public policy analysis (public sector students). Students may undertake other types of projects with permission of the executive MBA director. The project is submitted to the library. Prerequisite: BUS 607, 691.

BUS 698-4 Directed Studies in Business Administration
Individual study with a faculty member. The course outline must be approved by the graduate program committee.

BUS 725-0 MBA Co-op Practicum I
First semester of work experience. This course is open only to MBA students. The co-op education program co-ordinators must be contacted prior to registration for this course. Prerequisite: students must be enrolled as a graduate student in the MBA program, and must have a CGPA and previous SGPA of at least 3.0. Students entering the MBA program with a degree other than in business normally must complete all 500 level courses before beginning a co-op practicum. Students entering the MBA program with a business/commerce degree must complete a minimum of one semester with at least two courses at the 800 level before beginning a co-op practicum.

BUS 729-0 MBA Co-op Practicum II
This is the second semester of work experience. This course is open only to MBA students. The co-op education program co-ordinators must be contacted prior to registration for this course. Prerequisite: BUS 725. Students must be enrolled as a graduate student in the MBA program, and must have a CGPA and previous SGPA of at least 3.0.
BUS 727-0 MBA Co-op Practicum III
This is the third semester of work experience. This course is open only to MBA students. The co-op education program co-ordinators must be contacted prior to registration. Prerequisite: BUS 725, 726. Students must be enrolled as a graduate student in the MBA program, and must have a CGPA and previous SGPA of at least 3.0.

BUS 750-4 Managing Technological Innovation
This course examines successful product and process innovations in industry, as well as the effective organization and management of the technological change process in new ventures, multi-divisional and multinational enterprises.

BUS 752-4 Strategic Management of Technology-Based Firms
This course deals with how technology-based firms develop and implement strategies to create competitive advantage. The module treats strategy at two levels of analysis: (a) the overall strategy of the firm and (b) the technology strategy of the firm.

BUS 754-4 Marketing Tech-Based Products and Services
What differentiates high-tech markets from more traditional ones is the environment — shrinking product life cycles, rapid changes in information and knowledge and great uncertainty about competitors. This course is designed to teach strategies for developing and executing marketing strategies in technology-intensive markets.

BUS 756-4 Strategic Use of Information and Knowledge
This course will demonstrate, through cases and discussion, how information can be used to support decision-making, monitor operations and enable global communications. Topics will include knowledge management and information technology to support a learning organization.

BUS 758-4 Supply Chain Management
This course demonstrates how strategic competitive advantage can be gained through supply chain management — the processes of logistics, production, delivery and after-sales service. Concepts such as flexible manufacturing, just in time inventories and service quality will be examined.

BUS 759-4 Special Topics
This course covers five distinct areas of specialization. Topics will be selected to address emergent topics in Technology Management.

BUS 761-2 Leadership for the Technology Driven Enterprise
Developing and balancing critical management competencies at the individual, interpersonal, team and organizational levels. Focus is on effective organization, motivation and leadership.

BUS 762-4 Project Management
In high technology firms, projects are a way of life. The introduction of a new product or service, the redesign of an information system, and the opening of a new warehouse are all examples of projects that the technology-driven manager may encounter. This course demonstrates how complexity can be managed in a manner that increases the probability of project success. As a course assignment, students develop their own plan for the project/internship phase of the program.

BUS 763-2 Managing Self and Others: An Organizational Simulation
An intensive 3-day simulation where students discover what they would actually do when confronted with the reality of working in a company with multiple interdependent functions, financial and geographical constraints and a complex and changing environment. Graded on a Satisfactory/Unsatisfactory basis.

BUS 764-2 Financing the Organization
A basic understanding of the sources of capital, how to allocate it and how to regenerate it is necessary for technology managers. This course surveys the sources of venture capital, initial public offerings, mergers and debt capital. It also concentrates on net present values, internal rates of return, and other tools for capital budgeting and valuation.

BUS 766-2 Organizational Focus and Control through Financial Management
Success is often tempered by the constraint of money. Project budgeting, cash flow projection, and contingency planning are tools that help keep the flow of funds in balance. This course looks at how the technology manager can influence the flow of funds through numerous measures such as leverage, equity injections, credit policies, dividends and taxes.

BUS 770-2 Special Topics
BUS 771-2 Special Topics
BUS 772-2 Special Topics
BUS 773-2 Special Topics
BUS 774-2 Special Topics
BUS 776-4 Special Topics
BUS 778-4 Directed Studies in Management of Technology
Individual Study with a faculty member. A course outline must be approved by the graduate program committee.

BUS 780-6 Applied Project
Students will undertake a strategic business analysis and write an extended essay jointly supervised by a Simon Fraser University faculty member and an industry partner. The Management of Technology program director and a faculty member will negotiate the purpose, content and deliverables of each project with the student and the sponsoring organization.

BUS 781-3 Applied Project (Completion)
Applies Project (Completion)

BUS 801-4 Research Techniques
The design, conduct, and analysis of business research including both field and laboratory research methods. Prerequisite: BUEC 333, or permission of the instructor.

BUS 802-4 Foundations of Financial Economics
An introductory course for GAWM students in the theory of finance and investor behavior. It covers investor financial decision-making under uncertainty as well as capital market equilibrium.

BUS 803-4 Financial Econometrics
The foundations in econometrics for the GAWM program. Reviews econometric methods for testing asset-pricing models and for performance measurement.

BUS 804-4 Strategic Analysis for Wealth Management
Will teach students to analyse the competitive prospects for a given industry as well as specific companies within that industry. It will also include analysis of strategic choices in the financial services industry.

BUS 805-4 Capital Markets
Extends concepts in BUS 802 to various estimation and empirical issues in capital markets that are important for wealth and asset management. Topics in behavioral finance as well as performance measurement and attribution will also be covered. Asset allocation models will be studied covered with reference to the theoretical literature as well as models actually used in practice.

BUS 806-2 Client Relationship and Leadership Effectiveness I
Emphasizes how to become an effective investment counselor. Topics covered will include leadership styles, client relationship development, interpersonal communication, coaching/counselling strategies and skills, conflict and team management, and performance measurement. Information systems for effective client relationship management will also be covered.

BUS 807-2 Client Relationship and Leadership Effectiveness II
This course is a continuation of the concepts in BUS 806.

BUS 808-2 Client Relationship and Leadership Effectiveness Practice
Assists students in developing self-awareness and the ability to evaluate their leadership styles, personal leadership plans, effective leadership practices and reflection-in-action and life-long learning practices.

BUS 809-2 Equity Security Analysis and Portfolio Management
Extends concepts covered in the financial economics course sequence to the valuation of equity securities. Topics include the components of fundamental and technical analysis for individual stocks, as well as an analysis of different investment strategies and styles. Students will be required to produce a research report on a given equity security analysing the prospects for the industry in which it operates, the company’s competitive position within its industry and whether the current market price fairly represents these prospects. This course will also introduce students to alternative investment classes, such as private equity, hedge funds and real estate investment vehicles.

BUS 810-2 Fixed Income Security Analysis and Portfolio Management
Covers theories of the term structure, measures of fixed income return, yield-spread analysis and sources of risk in fixed income securities. Specific fixed income securities will be selected to include option-free bonds as well as bonds with embedded options. This course will also study fixed income portfolio strategies, such as active, passive, hybrid and derivative strategies.

BUS 811-2 International Investing and Portfolio Management
Covers theories of the term structure, measures of fixed income return, yield-spread analysis and sources of risk in fixed income securities. Specific fixed income securities will be selected to include option-free bonds as well as bonds with embedded options. This course will also study fixed income portfolio strategies, such as active, passive, hybrid and derivative strategies.

BUS 812-2 Fixed Income Security Analysis and Portfolio Management
Covers theories of the term structure, measures of fixed income return, yield-spread analysis and sources of risk in fixed income securities. Specific fixed income securities will be selected to include option-free bonds as well as bonds with embedded options. This course will also study fixed income portfolio strategies, such as active, passive, hybrid and derivative strategies.

BUS 813-2 Ethics, Wealth Management and the Securities Industry
Reviews the regulatory framework for investment managers and analyses the types of ethical considerations that might arise. Specific topics will include the importance of knowing the client, the nature of fiduciary obligations, suitability, standards of care (i.e., the prudent person and produce expert rules) and the identification and proper management of conflicts of interest.

BUS 814-2 Derivative Securities and Structured Transactions
An introductory course for GAWM students in derivative securities. It covers pricing as well as the
use of derivative securities in portfolio management and structured transactions.

BUS 815-4 Portfolio Theory
A study of optimum portfolio selections and diversification of financial assets including cash, vis-a-vis different classes of utility functions of final wealth, also the role of the behavior of speculative prices and rates of return. Prerequisite: ECON 331. Offered once a year. This is the same course as BUS 815.

BUS 816-2 Investment Policy
A capstone course that focuses on the development of effective investment policy for high net worth as well as institutional investors. It integrates topics in previous courses and is closely linked to BUS 809 Client Relationship Management III, as well as the Wealth Management Practicum.

BUS 817-4 Theory of Capital Markets
A study of capital market equilibrium theories, risk allocation, valuation models under perfect and imperfect markets and their empirical testing. Prerequisite: ECON 331, 835. Offered once a year. This is the same course as BUS 817.

BUS 818-4 Advanced Topics in Business Finance
Extensions of advanced topics beyond those covered in BUEC 815 and 817. Prerequisite: BUEC 815, 817. This is the same course as BUS 818.

BUS 819-4 Final Project for GAWM Students
Students will be required to complete a written project equivalent to one full course (4 credits). A project will generally represent successful research on a topic in asset and wealth management. The project will be supervised by faculty members, but members of the broad investment management community may also participate in the supervisory committee as second readers when appropriate. We hope that topics proposed by members of the Business Council may be suitable from time to time.

BUS 820-2 Final Project (Completion)
Final Project (Completion)

BUS 822-4 Decision Theory
An examination of prescriptive (Bayesian) theory of decision making under uncertainty and critical investigation of the theory. Prerequisite: BUEC 333, MATH 157, or permission of the instructor.

BUS 831-4 Industrial Relations
Negotiation, arbitration, collective agreements, work stoppages, labor-management co-operation.

BUS 836-4 Human Resource Practices for Managers
This course is focused on understanding how organizations can build, maintain, and compensate their pool of employees. Topics include recruitment and selection practices, compensation and incentive systems and diversity management.

BUS 837-4 Effective Leadership and Management in Organizations
Effective leadership is essential in modern organizations. This course provides an overview of leadership theories, principles and practices. An experiential learning approach is used to develop students’ leadership skills and competencies.

BUS 839-4 Organizational Assessment and Planned Change
Current theory, research and practice in organizational diagnosis and planned change. Prerequisite: advanced undergraduate course work in micro and macro organizational behavior.

BUS 845-4 Marketing Measurement
The generation and analysis of non-accounting information from sources both internal and external to the firm, with the purpose of understanding the use of such measurements in marketing segmentation. Prerequisite: BUS 801.

BUS 846-4 Data Mining and Models in Marketing
The construction, analysis and application of models of marketing phenomena. The focus is on turning data into strategically useful information by using analytical tools. Prerequisite: BUS 801.

BUS 847-4 Advanced Consumer Behaviour
A study of the results of consumer interactions with the forces affecting purchase decisions. The influence of environmental, corporate, and governmental factors on consumer behavior and the processes of consumer decision-making will be examined. Prerequisite: BUS 347, 801 or permission of the instructor.

BUS 848-4 Research in Marketing Strategy
Research in strategy integrates marketing models, competitive marketing theories, and marketing strategic analysis. Cases and computer simulations may be used to demonstrate competitive strategic decisions. Prerequisite: BUS 801.

BUS 850-4 Theoretical Issues Strategic Management
This course investigates the theoretical basis of strategic management particularly in the areas of strategic decision making, formulation and implementation. Prerequisite: BUS 578 or equivalent.

BUS 852-4 Researching the Corporation in Canadian Society
Research in contemporary theory and methods of investigating and conducting scientific research in Canadian corporations.

BUS 854-4 Business and Government Regulation
The theory and practice of public policy in the area of industrial organization. Topics include anti-competitive, utility regulation, patent policy, and competition directed at market failure. Prerequisite: ECON 200, or permission of the instructor.

BUS 858-4 Business and the Public Interest Society
Business requires business to act in the “public interest” by means both of explicit (legislated) rules and implicit social contracts. This course deals with these social contracts and will include discussions of employment policies, investment policies, charitable donations, environmental concerns and community service.

BUS 860-4 Administration of Public Enterprises
History, models of organizations of public corporations and their divergence from private counterparts. Public accountability decision-making, cost-benefit theories.

BUS 862-4 Contemporary Topics — International Business
The analysis of specific issues in international business/multinational firms, Canada’s regulations, international financial management, international marketing, international operations, foreign investment and the international environment.

BUS 871-4 Seminar in Financial Accounting
An in-depth analysis of current literature in financial accounting theory and practice. Emphasis will be placed on recent empirical research. Prerequisite: permission of the instructor.

BUS 872-4 Seminar in Managerial Accounting
An integrative course intended to develop an appreciation of the interrelationship of managerial accounting and analytical, behavioral and technological considerations in analysis and design of control systems. Emphasis will be placed on empirical research. Prerequisite: permission of the instructor.

BUS 873-4 Tax Strategy for Managers
The course will provide an overview of how taxes affect business decisions. The students will be exposed to a variety of managerial strategic decision topics which require a knowledge of taxes in order that optimal decisions can be made. Topics to be included will be: entity planning, capital structure, compensation planning, pensions, markets and arbitrage, international operations and executive personal tax planning.

BUS 874-4 Advanced Topics in Accounting
These advanced topics in accounting. A continuation of 871 and 872 with emphasis on the interrelation between financial and managerial accounting. Particular attention will be devoted to present and developing problem areas and the research related to those problems. Prerequisite: BUS 871 and 872, or permission of the instructor.

BUS 876-4 Decision Support Systems
Design and application of computer-based information systems to support managerial decision making in organizations.

BUS 877-4 Managing Information Technology
This course is designed to give students the knowledge to take a leadership role within an organization with respect to information technology. Students will learn to analyse complex business situations and solve real-world IT-related management problems. The students will work in a team-based project environment to complete an IT-related project and should demonstrate effective analysis, communication and technical competence through class participation, presentations and report writing.

BUS 878-4 Electronic Commerce
Electronic commerce is altering the way many organizations do business. This course will examine electronic commerce from both a managerial and a technological perspective. The objectives of the course are to provide students with an understanding of the technologies underlying e-commerce along with theoretical perspectives that will enable students to understand the broader implications of e-commerce.

BUS 882-4 Doing Business with the Pacific Rim Countries
The course seeks to examine the opportunities and challenges of doing business with the Pacific Rim countries. Topics include the analysis of foreign investment climate, business negotiations and marketing strategies. Prerequisite: permission of the instructor.

BUS 883-4 International Business and Multinational Enterprises
The course identifies theories, information and research findings which are useful in understanding different aspects of managing multinational operations, such as foreign investment, organization and control. Prerequisite: permission of the instructor.

BUS 884-4 Comparative Management
The course compares and contrasts similarities and differences in management styles and practices across countries. It seeks to develop an appreciation of what it is like to work with people from other cultures. Prerequisite: permission of the instructor.

BUS 885-4 International Human Resource Management
The course seeks to identify how cultural differences affect the practice of international human resource management; and to understand the linkage between international human resource strategy, organizational structure and corporate strategy. Prerequisite: permission of the instructor.

BUS 886-4 Management of International Firms
This course deals with strategic requirements for the management of multinational organizations. Firm-specific and institutional challenges facing global managers in formulating and implementing profitable strategies are also discussed. Prerequisite: BUS 885.
BUS 887-4 Entry Strategies for International Markets
Product-market entry decisions as well as choices on foreign market entry mode (exports, licensing, direct investment, etc.) are discussed. This course also deals with co-operate alliances in international business. Prerequisite: BUS 883.

BUS 897-4 Directed Readings
Supervised reading and report preparation in a particular field of specialization.

BUS 898-12 MBA Thesis

BUS 900-4 Methodology Seminar/Research Workshop
This course, which will meet twice weekly, will devote one half to an examination of methodological approaches including selection, planning and conduct of research and philosophy of science and one half to attendance at faculty and graduate student workshop presentations. The methodology section of the course is intended to place students’ research methodology in a broader context for critical evaluation. The workshop section will require students to present their own research findings for critical evaluation. Prerequisite: completion of prior required research courses, or permission of the instructor.

BUS 901-4 Selected Topics in Business Administration

BUS 902-4 Selected Topics in Business Administration

BUS 903-4 Selected Topics in Business Administration

BUS 904-4 Selected Topics in Business Administration

BUS 906-4 Selected Topics in Business Administration

BUS 907-4 Selected Topics in Business Administration

BUS 910-4 Selected Topics in Business Administration

BUS 980-4 Theory Development in Business Administration
The effective use of empiricism, positivism, and interpretive explanations in generating, defending and clarifying logically rigorous arguments is explored. Participants from diverse fields (marketing, international business, management studies, accounting, policy analysis, finance, etc.) within the administrative sciences will look at the processes which have guided theory development and theory testing within their field of inquiry. Attention will focus on what criteria are used to assess the adequacy of explanations (how they compare to alternative theories). The seminar seeks to advance the participants’ interest in putting theory into practice. Prerequisite: Enrolment in PhD Program.

BUS 981-4 Research Methods in Business Administration
Provides an overview of the major quantitative and qualitative analytical methods associated with empirical research in Business Administration. This seminar is aimed at providing an overview of the research process, an introduction to a range of research techniques and data analysis appropriate to those techniques. It should develop participants' skills for designing research as well as an ability to critically assess research reported in the literature. To do this, the course will focus on various approaches to research design, including the kinds of analyses appropriate to those designs, and introduce computer packages for data analysis, such as Statistical Package for Social Sciences (SPSS). Prerequisite: enrolment in PhD program.

BUS 982-4 Preparing a Thesis
The research process as applied to the student’s own thesis topic is examined. The seminar will focus on the planning, structure, and writing process involved in the PhD thesis and seeks to equip participants for publishing and conference presentation in Business Administration. Prerequisite: Enrolment in the PhD program.

BUS 983-4 Directed Studies I
Supervised individual study on a topic of the student’s choice, under the guidance of one or more faculty. Arrangements for this course must be approved by the graduate chair in advance of registration. Prerequisite: Enrolment in PhD Program.

BUS 984-4 Directed Studies II
Supervised individual study on a topic of the student’s choice, under the guidance of one or more faculty. Arrangements for this course must be approved by the graduate chair in advance of registration. Prerequisite: Enrolment in PhD Program.

BUS 985-4 Directed Studies III
Supervised individual study on a topic of the student’s choice, under the guidance of one or more faculty. Arrangements for this course must be approved by the graduate chair in advance of registration. Prerequisite: Enrolment in the PhD program.

BUS 987-4 Selected Topics I
Specialized study in topics germane to the program, but not covered extensively in other core courses. Prerequisite: Enrolment in PhD Program.

BUS 988-4 Selected Topics II
Specialized study in topics germane to the program, but not covered extensively in other core courses. Prerequisite: Enrolment in PhD Program.

BUS 989-4 Selected Topics III
Specialized study in topics germane to the program, but not covered extensively in other core courses. Prerequisite: Enrolment in PhD Program.

BUS 990-4 Research Project
Students will present a project for formal evaluation by the candidates supervisory committee. Prerequisite: Enrolment in PhD Program.

BUS 991-4 PhD Candidacy Exam
Students will present a project for formal evaluation by the candidates supervisory committee. Graded on a Satisfactory/Unsatisfactory basis. Prerequisite: Enrolment in PhD program.

BUS 992-4 PhD Thesis
Prerequisite: Enrolment in PhD program

BUS 998-2 Research Project (Completion)

BUS 999-4 MBA Research Project

BUS 983-4 Statistical Analysis of Economic Data
An introduction to the use and interpretation of statistical analysis in the context of data typical of economic applications. Prerequisite: ECON 103 or 200; ECON 105 or 205; BUEC 232 or STAT 270; MATH 157; 60 credit hours. Students with a minimum grade of A in BUEC 232 or STAT 270 can take BUEC 333 after 30 credit hours. Students seeking permission to register based on their BUEC 232 or STAT 270 grade must contact the Undergraduate Advisor in Economics. Students with credit for ECON/COMM 236 may not take BUEC 333 for further credit.

BUS 338 Course Catalogue – Business Administration and Economics BUEC
agreement. Administration of the collective agreement. Roles of third parties in collective bargaining. Prerequisite: ECON 103 or 200 and 105 or 205 and BUEC 384; BUS 360; 60 credit hours. Students with credit for BUEC 385 or 386 may not take BUEC 485 for further credit.

BUEC 495-3 Seminar in Law and Economics
A seminar examining how legal rules affect human behavior, how economics can explain the pattern of existing laws, and how economics might help in designing new laws. Prerequisite: BUEC 391; ECON 103 or 200; 90 credit hours; or permission of the faculty or department.

Canadian Studies CNS Faculty of Arts and Social Sciences
CNS 160-3 The Social Background of Canada
This course analyses the foundations and attributes of modern Canadian society using an interdisciplinary approach. As an introduction to Canadian Studies, the major themes of the course are social conflict and social change. It includes the French-English relations, Canada and the United States, ethnicity and multiculturalism, industrialism, regional conflict, social movements, nationalism and Canada’s social structure, classes and elites.

CNS 210-3 Foundations of Canadian Culture
An introductory study of Canada, which uses a variety of disciplinary methods to understand and assess Canada’s unique culture. The course draws on material from history, law, literature, politics, sociology and the fine arts in order to explore regional diversity and national needs and the nature of Canada as a bilingual and multicultural state.

CNS 280-3 Canadian Political Economy
An introductory study of Canada’s political economy, stressing the interrelated nature of Canada’s economic and political life. The course focuses on current economic problems and policies, taking into account the geographical, historical and political environments. Topics include the resource and industrial structures, research and development, the public sector, fiscal and monetary policy, the role of the state, trade and foreign ownership, energy, regional disparity, corporate concentration and the political economy of federalism. This course is identical to POL 223 and students cannot take both courses for credit.

CNS 360-4 Interdisciplinary Readings-Canadian Studies
Allows students to pursue in depth a particular Canadian problem from an interdisciplinary perspective. Prerequisite: 60 credit hours. Please refer to course outcome before registering.

CNS 390-3 Hockey in Canadian Popular Culture
The game of hockey is perhaps the most central and pervasive form of popular culture in Canada. It has been called the “lie that binds,” the “common passion,” and the “Canadian game.” This course seeks to create a critical understanding of how hockey’s significance extends far beyond the ice rink into the cultural, economic and political spheres of Canadian society. Prerequisite: at least 60 credit hours. Students who have taken this course as CNS 390 Topics in Canadian Popular Culture cannot take this course for further credit.

CNS 391-3 Special Canadian Topics
An intensive interdisciplinary exploration of particular topics that illustrate aspects of the Canadian reality. Prerequisite: 60 credit hours.

CNS 392-3 Cyberspace: The Next Canadian Frontier?
Examines cyberspace and virtual reality as the next Canadian frontier to be explored. The cross-section of material from disciplines will be used as a starting point to study the advancements in cyberspace and virtual reality research, with an aim to situate a “Canadian cultural consciousness,” and/or a “Canadian sensibility” towards this new and burgeoning “space.” Prerequisite: 60 credit hours. Students who have taken CNS 391 Special Canadian Topics: Cyberspace: the Next Frontier? may not take CNS 392 for further credit.

CNS 393-3 Canadian Humour
An examination of the structures of Canadian humour as a window on Canadian popular culture, self-identity, and the role of comedy in the marketing of Canadian cultural production. Prerequisite: 60 credit hours. Students who have taken CNS 391 with same title may not take this course.

CNS 481-3 Special Regional Topics
The role of the regions of regionalism in Canada is increasingly problematical, as the burden of the unity debate extends outwards from the Ontario/Quebec divide. This seminar will provide students with a grounding in interdisciplinary readings pertaining to the topic and an opportunity for directed research on a specific topic of their choice. Prerequisite: 60 credit hours. Students who have taken CNS 481 Special Topics may not take CNS 481 for further credit.

CNS 490-5 The Canadian Intellectual Tradition
An interdisciplinary seminar examining some of the major forces that have shaped and continue to shape Canadian thought, expression and society. Materials and theories will be drawn from historiography, history, philosophy, religion, politics, political economy, policy studies, literature, art and sport. Prerequisite: at least 60 credit hours. Students who have taken CNS 481 Special Topics may not take CNS 481 for further credit.

CNS 491-3 Technology and Canadian Society
This course examines and assesses technology and its impact on Canadian society. It concentrates on 20th century technology and uses a case study approach examining some broad themes in the study of technology such as: technological determinism, technological impact assessment, innovation, technology as progress, technological dependency, technological sovereignty, and bias in technology. Prerequisite: at least 60 credit hours.

CNS 495-5 Canadian Studies Honors Essay
An essay required of each honors student in Canadian Studies, based on a substantial interdisciplinary research effort by the student under the supervision of Canadian Studies faculty in the appropriate disciplines. A paper based on the essay must be presented in a Canadian Studies seminar. Prerequisite: registration as honors student in Canadian Studies.

Chemistry CHEM Faculty of Science
CHEM 110-3 Introductory Chemistry
General fundamental concepts and nomenclature; stoichiometry and chemical calculations; nuclear and atomic structures, chemical bonding; properties of gases, liquids, solids and solutions; chemical kinetics and chemical equilibrium. This course has the same lecture component as CHEM 111 but no laboratory work. Prerequisite: BC high school mathematics 12 (or equivalent) or permission of the department. No previous training in chemistry is required for this course. Students with credit for high school chemistry 12 (or equivalent), or any university chemistry course may not take CHEM 110 or 111 for further credit.

Students may not count both CHEM 110 and 111 for credit. Corequisite: If BC high school mathematics 12 credit not obtained, then MATH 100 must be taken as a corequisite to CHEM 110.

CHEM 111-4 Introductory Chemistry and Laboratory
General fundamental concepts and nomenclature; stoichiometry and chemical calculations; nuclear and atomic structures, chemical bonding; properties of gases, liquids, solids and solutions; chemical kinetics and chemical equilibrium. This course includes a laboratory component. Prerequisite: BC high school mathematics 12 (or equivalent) or permission of the department. No previous training in chemistry is required for this course. Students with credit for high school chemistry 12 (or equivalent), or any university chemistry course may not take CHEM 110 or 111 for further credit. Students may not count both CHEM 110 and 111 for credit. Corequisite: If BC high school Mathematics 12 credit not obtained, then MATH 100 must be taken as a corequisite to CHEM 111.

CHEM 120-3 General Chemistry I
Atomic and molecular structure; chemical bonding; thermochemistry; elements; periodic table; gases, liquids, solids, and solutions. This course has the same lecture component as CHEM 121 but no laboratory work. Students who intend to take further laboratory courses in chemistry must take CHEM 121. Prerequisite: BC high school chemistry 12 or CHEM 111 or CHEM 110 (or 101). Students may not count both CHEM 120 and 121 for credit. Recommended: MATH 151 (or 154) and PHYS 120 (or 101) as a corequisite.

CHEM 121-4 General Chemistry and Laboratory I
Atomic and molecular structure; chemical bonding; thermochemistry; elements; periodic table; gases, liquids, solids, and solutions. This course includes a laboratory component. Prerequisite: BC high school chemistry 12 or CHEM 111 (or 101 and 106). Students may not count both CHEM 120 and 121 for credit. Recommended: MATH 151 (or 154) and PHYS 120 (or 101) as a corequisite.

CHEM 122-2 General Chemistry II
Chemical equilibria; electrochemistry; chemical thermodynamics; kinetics. Students who intend to take further laboratory courses in chemistry should take CHEM 122 concurrently with CHEM 126. Prerequisite: CHEM 121 or 120 (or 102). Recommended: MATH 152 (or 153) and PHYS 121 (or 102) as a corequisite.

CHEM 126-2 General Chemistry Laboratory II
Experiments in chemical equilibria, acids and bases, qualitative analysis, electrochemistry and chemical kinetics. Prerequisite: CHEM 121 (or 102 and 115). Corequisite: CHEM 122.

CHEM 215-4 Introduction to Analytical Chemistry
The principles of analytical chemistry and their practical application to solution samples. Titrimetric and electrochemical methods. Prerequisite: CHEM 122 (or 103) and 126 (or 118) as a corequisite.

CHEM 230-3 Inorganic Chemistry
The chemistry of the elements and their inorganic compounds in terms of fundamental concepts of periodicity of properties, valence, ionization potential, electron affinity, electronegativity, stability of oxidation states, bonding, structure and stereochemistry. Co-ordination complexes and organometallic chemistry. Prerequisite: CHEM 122 (or 103).

Corequisite: students who expect to take further courses in inorganic chemistry should take the laboratory course CHEM 236 concurrently with 230.

CHEM 236-2 Inorganic Chemistry Laboratory
An introduction to the synthetic and spectroscopic techniques used in the preparation and
characterization of both main group and transition metal compounds. Prerequisite: CHEM 122 and 126 (or 103 and 118). Corequisite: CHEM 230.

**CHEM 260-4 Atoms, Molecules, Spectroscopy** Elements of physical chemistry from the molecular point of view. Introduction to quantum chemistry, atomic and molecular structure, and spectroscopy. Prerequisite: CHEM 122 (or 103), MATH 152, PHYS 121. Recommended: MATH 232.

**CHEM 281-1 Organic Chemistry I** Structure, bonding, physical and chemical properties of simple organic compounds. Introduction to spectroscopy. Prerequisites: CHEM 282 (or 250), or permission of the department. Corequisite: CHEM 291.


**CHEM 286-2 Organic Chemistry Laboratory** Laboratory work chosen to complement CHEM 282. Prerequisite: CHEM 281. Corequisite: CHEM 282.

**CHEM 306-0 Practicum I** This is the first semester of work experience in a co-operative program. Prerequisite: CHEM 306 and completion of 42 credit hours toward a BSc degree. Minimum CGPA 2.0 or permission of co-op coordinator.

**CHEM 307-0 Practicum II** This is the second semester of work experience in the Chemistry Co-operative Education Program. Prerequisite: CHEM 306 and completion of 42 credit hours toward a BSc degree. Minimum CGPA 2.0 or permission of co-op coordinator.

**CHEM 316-4 Introductory Instrumental Analysis** Principles and applications of basic analytical instrumentation based upon spectroscopy, chromatography and electrochemistry. Prerequisite: CHEM 215 (or 218) and CHEM 260, or permission of the department. Students may not count both CHEM 316 and 416 for credit.

**CHEM 317-2 Analytical Environmental Chemistry** Principles and applications of the methodologies of analytical chemistry employed in the determination of substances in water, air, and soil, with particular emphasis upon sampling and sample preparation. Prerequisite: CHEM 316 and 371. Corequisite: CHEM 372 should be taken concurrently.

**CHEM 332-3 The Chemistry of Transition Metals** The synthesis and characterization of classical and organometallic complexes of the transition metals, and their physical and chemical properties. Prerequisite: CHEM 230, 236 and 260, or permission of the department.

**CHEM 333-3 Inorganic Chemistry of Biological Processes** An introduction to the principles governing the formation, properties and investigation of metal-ligand complexes with special reference to the role of metals in biological processes. Prerequisite: MBB 321 (or BCH 301, or 321); or CHEM 282 (or 250) and CHEM 230 (or 232).

**CHEM 336-2 Advanced Inorganic Chemistry Laboratory** Laboratory experiments in coordination, organometallic and solid state chemistry, involving synthesis, characterization and spectroscopy. Prerequisite: CHEM 236. Corequisite: CHEM 332 must precede or be taken concurrently.

**CHEM 340-3 Materials Chemistry** Bonding in solid state materials. Introduction to symmetry and its applications in materials science. Structure and physical properties of solid state materials. Prerequisite: completion of 60 credit hours in a science or applied science program, including first year chemistry, physics and calculus.

**CHEM 360-3 Thermodynamics and Chemical Kinetics** Elements of physical chemistry from the macroscopic point of view. Thermodynamics, and its applications to chemical equilibrium. Chemical kinetics and reaction rate theories. Prerequisite: CHEM 122 (or 103), MATH 152 (or 155), PHYS 121 (or 102). Recommended: MATH 251.

**CHEM 366-2 Physical Chemistry Laboratory I** Experiments in thermodynamics, chemical kinetics, electrochemistry, and atomic and molecular structure. Prerequisite: CHEM 260. Corequisite: CHEM 360.

**CHEM 367-2 Physical Chemistry Laboratory II** Continues CHEM 366. Prerequisite: CHEM 366.

**CHEM 371-3 Chemistry of the Aqueous Environment** An introduction to chemical processes in the aqueous environment. Quantitative treatment of the variables determining the composition of natural systems. Chemistry of aqueous toxic agents, wastewater treatment, and related matters. Prerequisite: CHEM 281 (or 150) and CHEM 360 (or 261).

**CHEM 372-3 Chemistry of the Atmospheric Environment** Quantitative treatment of chemical and physical processes in the atmospheric environment. Chemistry of the troposphere including air pollution and climate change. Chemistry of the stratosphere including ozone depletion. Environmental radioactivity. Current topics. Prerequisite: CHEM 281 (or 150) and CHEM 360 (or 261).

**CHEM 380-4 Chemical and Instrumental Methods of Identification of Organic Compounds** Basic principles of infrared, ultraviolet, nuclear magnetic resonance and mass spectroscopy as applied to the identification of organic compounds. Prerequisite: CHEM 260 and 282 and 286 (or 250 and 255), or permission of the department.

**CHEM 381-4 Intermediate Organic Chemistry** An intermediate level course in modern organic chemistry, including both classical and contemporary topics in synthetic routes and practical training in the laboratory. The central topics to be discussed include methods to form carbon-carbon bonds, use of organometallic reagents, asymmetric synthesis, pericyclic reactions, the use of enzymes in organic synthesis, and the automation of synthetic organic chemistry. Prerequisite: CHEM 380.

**CHEM 406-0 Practicum III** This is the third semester of work experience in the Chemistry Co-operative Education Program. Prerequisite: CHEM 307 and completion of 56 credit hours toward a BSc degree. Minimum CGPA 2.0 or permission of co-op coordinator.

**CHEM 407-0 Practicum IV** This is the fourth semester of work experience in the Chemistry Co-operative Education Program. Prerequisite: CHEM 306 and completion of 56 credit hours toward a BSc degree. Minimum CGPA 2.0 or permission of co-op coordinator.

**CHEM 416-3 Special Topics in Analytical Chemistry** An in-depth treatment of a current topic in inorganic chemistry. Contact the department for information regarding the topic to be covered in a given semester. Prerequisite: CHEM 332.

**CHEM 440-3 Solid State Materials Chemistry** The study of the detailed chemistry of solid state inorganic materials in terms of crystal structures, bonding, preparative methods, analytical and characterization techniques, mixed valence states, solid solutions, defects and non-stoichiometry, molecular mechanisms of the optical, electronic, ionic, magnetic and dielectric properties, and materials applications in advanced technology. Prerequisite: CHEM 340.

**CHEM 442-3 Polymeric Materials Chemistry** The course covers the detailed chemistry of polymers, including polymer structure, studies of polymer solutions, molecular weight determination, and the synthesis of polymers. In addition, topics of current interest in polymer science will be discussed. Prerequisite: CHEM 282.

**CHEM 444-3 Organic Materials Chemistry** Emphasis will be placed on the synthesis and properties of materials that are useful in the design of electrotechnical devices, such as light emitting diodes (LEDs) and liquid crystal displays (LCDs). Topics to be discussed will include liquid crystals, conjugated polymers, and the assembly of thin film materials. A case study approach will be employed in order to provide an overview of these areas of research, with examples taken from the primary literature. Prerequisite: CHEM 282.

**CHEM 450-3 Physical Organic Chemistry** A study of the structures, synthesis and conformation of molecules and their effect on the reactivity of organic molecules. The physical basis of organic chemistry. Prerequisite: CHEM 360 (or 261) and 380.

**CHEM 452-3 Bio-organic Chemistry** An advanced treatment of the use of enzymes in organic synthesis, the use of stable and radioactive isotopes in the study of enzymatic processes and the design of enzyme inhibitors. Prerequisite: CHEM 381 or permission of the department.

**CHEM 455-3 Synthetic Organic Chemistry** This course teaches the principles involved in the planning and execution of the synthesis of organic molecules. Emphasis is on synthesis of naturally occurring compounds of biological importance. Prerequisite: CHEM 381 or permission of the instructor.

**CHEM 459-3 Special Topics in Organic Chemistry** An advanced, in-depth treatment of a specialized area of organic chemistry. Prerequisite: CHEM 380 or permission of the instructor.

**CHEM 460-3 Advanced Physical Chemistry** Statistical thermodynamics, kinetic theory of gases, transport properties, intermolecular forces, electrical properties of molecules, properties of ionic solutions, Debye-Hückel theory, electrochemistry. Prerequisite: MATH 251; CHEM 260 and 360, or PHYS 385 and 344 (or 244).

Symmetry classification of molecules and their energy levels. Prerequisite: CHEM 260 or PHYS 385.

CHEM 464-3 Quantum Chemistry
Fundamentals of quantum mechanics and its principal results and techniques as applied to atoms and molecules: atomic structure, molecular bonding, rotation and vibrations of molecules, symmetry of atomic and molecular orbitals. Prerequisite: CHEM 260, MATH 232, 251; or PHYS 385. Recommended: MATH 310.

CHEM 465-3 Electrochemistry
Modern techniques and concepts in electrochemistry. Topics include equilibrium and dynamic electrochemistry, ion transport and voltammetry. Electrochemical systems of increasing importance including chemically modified electrodes, fuel cells and solar energy conversion applications will also be discussed. Prerequisite: CHEM 360.

CHEM 468-3 Special Topics in Physical Chemistry
Selected topics of physical chemistry not regularly covered in the chemistry undergraduate course offerings. Topics may vary from year to year and may include (but are not limited to) chemical kinetics, electrochemistry, magnetic resonance, polymer chemistry, surface chemistry. Prerequisite: CHEM 260 and 360, or permission of the instructor.

CHEM 469-3 Special Topics in Physical Chemistry
Selected topics of physical chemistry not regularly covered in the chemistry undergraduate course offerings. Topics may vary from year to year and may include (but are not limited to): chemical kinetics, electrochemistry, magnetic resonance, polymer chemistry, surface chemistry. Prerequisite: CHEM 260 and 360 (or 261 and 361) or permission of the instructor.

CHEM 481-5 Undergraduate Research
Experimental and/or theoretical research; preparation of a written report and oral presentation in research seminar format. Admission requires selection of a faculty supervisor and submission of a research proposal. Prospective students must contact the chemistry advisor to register their interest in this course before the last day of classes of the previous semester. The research proposal is due by the end of the examination period preceding the research semester. Prerequisite: permission of the department; knowledge of chemistry at an advanced level. Normally taken after completion of 300 level course requirements.

CHEM 482-3 Directed Study — Advanced Topics of Chemistry
Directed reading in a topic chosen in consultation with a supervisor. Admission requires selection of a faculty supervisor and submission of a study topic to the department a least one month prior to the start of the semester in which the course will be taken. Prerequisite: permission of the department. Normally taken during the fourth year of study.

CHEM 483-5 Honors Research
Experimental and/or theoretical research; preparation of a written report and oral presentation in research seminar format. Admission requires selection of a faculty supervisor and submission of a research proposal. Prospective students must contact the chemistry advisor to register their interest in this course before the last day of classes of the previous semester. The research proposal is due by the end of the examination period preceding the research semester. Prerequisite: CHEM 481 and permission of the department. Credit for this course may only be applied to the honors chemistry program.

CHEM 740-3 Solid State Materials Chemistry
The study of the detailed chemistry of solid state inorganic materials in terms of crystal structures, bonding, preparative methods, analytical and characterization techniques, mixed valence states, solid solutions, defects and non-stoichiometry, molecular mechanisms of the optical, electronic, ionic, magnetic and dielectric properties, and materials applications in advanced technology.

CHEM 742-3 Polymeric Materials
The course covers the detailed chemistry of polymers, including polymer structure, studies of polymer solutions, molecular weight determination, and the synthesis of polymers. In addition, topics of current interest in polymer science will be discussed.

CHEM 744-3 Organic Materials Chemistry
This is an advanced level course in modern organic materials chemistry. Emphasis will be placed on the synthesis and properties of materials that are useful in the design of electrooptical devices, such as light emitting diodes (LEDs) and liquid crystal displays (LCDs). Topics to be discussed will include liquid crystals, conjugated polymers, and the assembly of thin film materials. A case study approach will be employed in order to provide an overview of these areas of research, with examples taken from the primary literature.

CHEM 750-3 Physical Organic Chemistry
An advanced treatment of mechanism and structure in organic chemistry and the use of physical methods as probes of structure, stereochemistry and conformation.

CHEM 752-3 Bio-organic Chemistry
An advanced treatment of the use of enzymes in organic synthesis, the use of stable and radio isotopes in the study of enzymatic processes, and the design of enzyme inhibitors.

CHEM 754-3 Carbohydrate Chemistry
A detailed treatment of the structure and reactions of monosaccharides, the use of carbohydrates as chiral templates in organic synthesis, advances in glycoside synthesis, the occurrence, chemistry, and conformational analysis of complex carbohydrates and their role in biological systems.

CHEM 755-3 Synthetic Organic Chemistry

CHEM 759-3 Special Topics in Organic Chemistry
An advanced treatment of specific topics related to the study of organic compounds. Topics which will be discussed will vary from one semester to the next.

CHEM 801-3 Student Seminar
Discussion of recent literature in chemistry through student seminars.

CHEM 802-3 Student Seminar II
CHEM 819-3 Special Topics in Analytical Chemistry
In-depth coverage of a particular area of analytical chemistry. Example subject areas include separation science, mass spectrometry, optical spectroscopy, electrochemistry, or surface science. Occasionally the subject matter of this course will be a survey of recent advances in the field.

CHEM 832-3 Organometallic Chemistry
An advanced treatment of the synthesis, structures, reactions and spectroscopic identification of inorganic compounds.

CHEM 833-3 Recent Advances in Main Group Chemistry
Important developments in main group chemistry in recent years will be examined in the context of the basic chemistry of the elements involved; not every element or group will necessarily be discussed.

CHEM 839-3 Special Topics in Inorganic Chemistry
An advanced, in-depth treatment of a specialized area of inorganic chemistry.

CHEM 842-3 Special Topics in Radiochemistry
Theory and practical techniques of the current uses of radioactive isotopes in systems of chemical interest.

CHEM 863-3 Magnetic Resonance
Principles, techniques and applications of NMR and ESR.

CHEM 864-3 Quantum Chemistry
Non-relativistic quantum mechanics. Atomic and molecular structure, perturbation theory, variation method.

CHEM 865-3 Electrochemistry
Modern techniques and concepts in electrochemistry. Topics include equilibrium and dynamic electrochemistry, ion transport and voltammetry. Electrochemical systems of increasing importance including chemically modified electrodes, fuel cells and solar energy conversion applications will also be discussed.

CHEM 869-3 Special Topics in Physical Chemistry
A specialized area of physical chemistry will be selected from a list of topics.

CHEM 881-0 Co-op Practicum I
First semester work experience term for graduate students. Prerequisite: completion of MSc thesis including defence.

CHEM 882-0 Co-op Practicum II
Second semester work experience term for graduate students. Prerequisite: completion of MSc thesis including defence.

CHEM 898-6 MSc Thesis
A thesis for the MSc degree may be written on a topic in either chemistry or chemical education. Students electing to write a thesis in chemical education, are required to complete satisfactorily 10 hours of course work in the Faculty of Education in addition to the minimum chemistry degree requirements. The 10 units of course work in the Faculty of Education may not be used for credit towards the PhD degree in Chemistry if the student transfers into the PhD program.

CHEM 899-6 PhD Thesis

Chinese CHIN

Faculty of Arts and Social Sciences
Department of Linguistics
Language Training Institute

CHIN 100-3 Mandarin Chinese I
Introduction to the study of Mandarin Chinese and to the development of basic oral and written skills. The course will study phonetics, vocabulary, syntax, grammar and culture. Prerequisite: permission of the instructor.

CHIN 101-3 Mandarin Chinese II
Continues to build on all four language skills acquired in CHIN 100. Prerequisite: CHIN 100 or permission of the department.

CHIN 151-3 Spoken Mandarin for Speakers of Other Chinese Dialects
This course is especially designed for native speakers of Chinese Dialects other than Mandarin who, though able to read and write Chinese fluently, have no knowledge of spoken Mandarin. Speakers of a Chinese dialect who have taken Mandarin courses should not take this course. Prerequisite: ability to read, write and speak a Chinese dialect.
COGS 221-3 Media and Audiences
An introduction to the study of popular culture and mass media, with a focus on the organization and role of audiences. Prerequisite: CMNS 110 and 130.

CMNS 223-3 Advertising as Social Communication
An introductory examination of the significance of advertising as a social message system in our consumer society. The course proposes an analytical method for appreciating the changing styles and functions of advertising in the 20th century. Prerequisite: CMNS 110 or 130.

CMNS 226-3 Digital Media Communication Techniques
This course introduces students to a variety of digital media communication technologies and techniques, including image and sound capturing and manipulation, Internet-based publishing and research, digitizing, editing and archiving. Design and management tasks involved in communicating using digital media are also introduced, including strategic and research planning, data integrity management, file structuring and packaging, and work presentation. Prerequisite: CMNS 110 and 130. Recommended: CMNS 220.

CMNS 230-3 Communication Media in Canada
Provides an overview of the development of broadcasting and telecommunication systems in Canada and their relationship to contemporary society. Topics covered include the history of the CBC, cable television, the domestic film production industry, Canadian satellite development, and alternative media in Canada. Prerequisite: CMNS 130.

CMNS 235-3 Introduction to Journalism in Canada
An overview of journalism as a social, cultural and political institution in Canada. Topics include: themes of news; print and electronic journalism; journalism and politics; history of Canadian journalism; legal, technological, professional, corporate and ethical influences. Prerequisite: CMNS 130.

CMNS 240-3 The Political Economy of Communication
Examination of the political and economic processes that have generated the policies and structures of mass media, telecommunications and related industries; the relationship between the dichotomies of state and market, citizen and consumer, capitalism and democracy, global and local, and sovereignty and globalization in media industries and policies; overview of influences on State and international policies towards the media (lecture/tutorial). Prerequisite: CMNS 110 and 130.

CMNS 247-3 International Communication
A survey and analysis of opportunities and constraints in the field of international communication. The course will consider perspectives from which to understand and address regional differences, universal patterns of communication in international relations, and in development co-operation. Comparative and contrastive examples will be drawn from communication practices current in the Asia-Pacific region. Prerequisite: CMNS 110 and 130. Students with credit for CMNS 346 (September 1988 to August 1997) may not take this course for further credit.

CMNS 253-3 Introduction to Information Technology: New Media
An introduction to new communication/information technologies, seen as new media of communication, including image and sound capturing and manipulation, Internet-based publishing and research, digitizing, editing and archiving. Design and management tasks involved in communicating using digital media are also introduced, including strategic and research planning, data integrity management, file structuring and packaging, and work presentation. Design and management tasks involved in communicating using digital media are also introduced, including strategic and research planning, data integrity management, file structuring and packaging, and work presentation. Design and management tasks involved in communicating using digital media are also introduced, including strategic and research planning, data integrity management, file structuring and packaging, and work presentation. Design and management tasks involved in communicating using digital media are also introduced, including strategic and research planning, data integrity management, file structuring and packaging, and work presentation. Design and management tasks involved in communicating using digital media are also introduced, including strategic and research planning, data integrity management, file structuring and packaging, and work presentation. Design and management tasks involved in communicating using digital media are also introduced, including strategic and research planning, data integrity management, file structuring and packaging, and work presentation. Design and management tasks involved in communicating using digital media are also introduced, including strategic and research planning, data integrity management, file structuring and packaging, and work presentation. Design and management tasks involved in communicating using digital media are also introduced, including strategic and research planning, data integrity management, file structuring and packaging, and work presentation. Design and management tasks involved in communicating using digital media are also introduced, including strategic and research planning, data integrity management, file structuring and packaging, and work presentation. Design and management tasks involved in communicating using digital media are also introduced, including strategic and research planning, data integrity management, file structuring and packaging, and work presentation. Design and management tasks involved in communicating using digital media are also introduced, including strategic and research planning, data integrity management, file structuring and packaging, and work presentation. Design and management tasks involved in communicating using digital media are also introduced, including strategic and research planning, data integrity management, file structuring and packaging, and work presentation. Design and management tasks involved in communicating using digital media are also introduced, including strategic and research planning, data integrity management, file structuring and packaging, and work presentation. Design and management tasks involved in communicating using digital media are also introduced, including strategic and research planning, data integrity management, file structuring and packaging, and work presentation. Design and management tasks involved in communicating using digital media are also introduced, including strategic and research planning, data integrity management, file structuring and packaging, and work presentation. Design and management tasks involved in communicating using digital media are also intro
CMNS 258-3 Introduction to Electroacoustic Communication
An introduction to the tape medium as a communicational tool and to electroacoustic aspects of communication in general. Specific techniques of field recording, interviewing, editing, tape transformations, sound object manipulation, and basic studio techniques will be presented and students will use the school's studio facilities. Applications of the tape medium to such areas as media analysis, aural history, social documentation, interpersonal communication, and tape music composition will be discussed.
CMNS 259-3 Acoustic Dimensions of Communication
A course designed to develop the student's perception and understanding of sound and its behavior in the interpersonal, social, environmental, media and creative fields. The acoustic and psychoacoustic bases of sound will be introduced with special reference to acoustic design, the electroacoustic media, and sonic environments.
CMNS 260-3 Empirical Communication Research Methods
An introduction to empirical research methods in diverse traditions of communication enquiry. Some methods recognize communication as everyday interactions; others recognize communication as a process; still others blend traditional scientific empiricism with analytical and critical methods derived from the arts and humanities. Topics include: ethics, paradigms, conceptualizing and operationalizing research, sampling, interviews, surveys, unobtrusive observation, content analysis, and the role of statistics in communication research. Prerequisite: CMNS 110 or 130.
CMNS 261-3 Documentary Research in Communication
Media and communication studies often utilize historical, governmental and corporate records. The course introduces the techniques necessary to analyze the primary source documents. Topics include: ethics, documentary discourse analysis, Canadian and international documentary searches on NGOs, governments, corporations; writing of policy briefs. Prerequisite: CMNS 110 or 130.
CMNS 262-3 Design and Method in Qualitative Communication Research
Examination of a wide range of approaches to research in media and cultural studies, including a discussion of ethical issues. Topics may include: historical methods, field work methods, textual analysis, case studies, Prerequisite: CMNS 110 or 130. Students who have credit for CMNS 286 in Spring 2004 may not take CMNS 262 for further credit.
CMNS 286-3 Selected Topics
Analysis of a particular topic in the general area of communication. Prerequisite: CMNS 110 and 130.
CMNS 287-3 Selected Topics
Analysis of a particular topic in the general area of communication. Prerequisite: CMNS 110 and 130.
CMNS 304-4 Communication in Everyday Life
An introduction to context theory and media literacy. Films and documentaries are used as texts for the study of communication and popular culture. Prerequisite: 45 credit hours including CMNS 266 and 130. Recommended: CMNS 220 and 221.
CMNS 310-4 Media and Modernity
An examination of the development of communication theory in western social thought from the eighteenth century to the early twentieth century. Discussion is focused around a series of debates about the changing nature of human communication in modernity with specific reference to the rise of modern mass media. Topics discussed include the so-called growth of mass society in modernity; the emergence of Marxism; the origins of modern linguistics; and the rise and reformation of behavioural approaches to communication research. Prerequisite: Two of CMNS 210, 221, 240.
CMNS 320-4 Children, Media and Culture
The course examines the role of popular communication media in children's lives by reviewing the debates and research in this field. Specific attention will be paid to the issues of violence, literacy, imagination, quality and marketing, and the examination of the critical writing and advocacy movements which have arisen around the problem of children's media. Prerequisite: 60 credits including two of CMNS 220, 221, 223, 226. Strongly recommended: CMNS 362 or 363.
CMNS 321-4 Cultural Production of Popular Music
Examination of the cultural production of popular music with emphasis on the relationship between the nature and strategies of popular music production and the patterns of its audience consumption. Prerequisite: CMNS 223.
CMNS 322-4 Cultural Dimensions in Advertising
This course develops a critical overview of the contemporary debates about the consumer society. This exploration of consumer culture begins by examining recent characterizations of the psycho-social dynamics of consumption in consumer culture. It goes on to trace the historical formation of advertising as a key cultural practice, mediating the market transactions between producers and consumers. The marketing communication model is the focus of a detailed examination of the increasingly sophisticated co-ordination of communication and consumer research activities. Prerequisite: 60 credit hours, including two of CMNS 220, 221, 223 or 226. Strongly recommended: CMNS 362 or 363.
CMNS 324-4 Media, Sports and Popular Culture
An examination of the changing relationships between media, sport and popular culture in both a North American and a global context (lecture/tutorial). Prerequisite: Two of CMNS 210, 220, 221, 223, 224. Cannot be taken for further credit: student has taken CMNS 386 under same title.
CMNS 326-4 Applied Media Workshop:
On the Hill
This course provides an opportunity for students to build on the knowledge they have acquired in Digital Media Communication Techniques (CMNS 226), and apply that knowledge to the production of the School of Communication's web based news magazine and documentary program On The Hill (www.sfu.ca/oth). Students will draw on their understanding of public communication in democracies and media analysis skills to create new and innovative visual and aural journalism. In addition, students will learn to build teamwork skills as they produce segments for the shows in groups. The course seminars will emphasize communication design, and the social and ethical issues which arise when working with documentary and news material for public dissemination. Prerequisite: permission of instructor, and 60 credit hours including CMNS 226 and 235.
CMNS 331-4 News Discourse and Political Communication
An examination of journalism and the news media as a set of institutions with important political and ideological roles. The course explores theoretical perspectives and selected theoretical concepts to such topics as influences on media content, how news generates meaning, ideological aspects of media frames, and the evaluation of journalism's performance in relation to normative expectations of democratic political communication. Prerequisite: two of CMNS 230, 235 and 240.
CMNS 333-4 Broadcast Policy and Regulation—Global Context
Television—in broadcast, cable and video-on-demand formats—has dominated the cultural industries of Canada. Traditionally seen as important to political and cultural self-determination, broadcasting strategy, business and government policies are now being adapted in view of globalization of technologies which are altering the production, financing, and distribution of new and existing information and entertainment services. This course focuses on developing applied business and public policy analytic skills. Tools of on-line searches, presentation software, the rudiments of strategic analysis of industrial sectors (strengths, weaknesses, threats, opportunities) and technical policy writing will be covered. A simulation will be staged around a convergence theme drawn from technology, business, or public interest policy issues. Prerequisite: CMNS 240 and 261. Recommended: CMNS 230.
CMNS 334-4 Cultural Policy
Examination of the modern foundations and current policy processes of federal, provincial and municipal policies for the arts, cultural industries and heritage. Related social policies, such as bilingualism and multiculturalism, and the international context of Canadian cultural policy, will also be addressed. Prerequisite: CMNS 261 and one of CMNS 230 or 240.
CMNS 336-4 Telecommunication Regulation in North America
Development of the theory and practice of regulation of the telecommunications industry in Canada and the USA. Prerequisites: CMNS 240 and 261. Recommended: CMNS 230. Students who have taken CMNS 436 in the past may not take this course for further credit.
CMNS 342-4 Science and Public Policy: Risk Communication
The course examines communication in the relation between science (technology) and public policy, and more particularly, in the evaluation of risk. Prerequisite: Two of CMNS 260, 261, 262.
CMNS 346-4 Communication and Development
An introduction to explanations and interpretations of the roles of communication in development, and the historical framework through which such analysis is made. It shows how an unequal structure of world political economy is conserved in association with ever increasing amounts of information and new means to communicate. Examples from Canada and other countries will be used. Prerequisite: 60 credit hours including CMNS 110 and 130. Recommended: CMNS 240. Students who have taken CMNS 345 may not take CMNS 346 for further credit.
CMNS 347-4 Communication in Conflict and Intervention
The role of communication, and in particular the mass media, in various types of conflict and the uses of communication-based strategies, such as in the intervention, arbitration and mediation of those conflicts. Prerequisite: 60 credit hours including CMNS 110 and 130. Recommended: CMNS 247 and 362.
CMNS 353-4 Social Contexts of Information Technology
Examination of a particular application of information/communication technology, focusing on the technology itself and its capabilities; how it is implemented, and what social impacts it has on the people who use it. Emphasis is placed on understanding how the system works in the ongoing social context in which it is developed, installed and used. The specific application studied may vary from

Graduate courses are numbered 500-999

Course Catalogue – Communication CMNS 343

Simon Fraser University 2005 - 2006
semester to semester. Prerequisite: CMNS 253; and CMNS 261 or 362.

CMNS 354-4 Communication and Social Issues in Design

This course will explore social issues and values in designing technology, through a focus on both the objects and processes of design. Emphasis will be placed on communication between participants in the design process, and identification of social issues and values that influence design. Students will work in cross-disciplinary groups during labs. Lab exercises will emphasize making decisions that occur during the design process explicit, and making values that enter into design processes explicit. Prerequisite: 60 credit hours, including any one of CMNS 253; CMPT 275; KIN 201, 205 or ENSC 100. CMNS students must also have completed CMNS 362 or 363.

CMNS 358-4 Sound Tape Recording: Theory and Uses

An intermediate level studio workshop to develop the student's skills in the tape medium and his/her understanding of the communicational implications of sound and space in that medium. Prerequisite: CMNS 258 with a grade of B or higher, and approval of instructor.

CMNS 359-4 Acoustic Dimensions of Communication II

A special topics course and small class work group at an intermediate level in acoustic communication dealing intensively with specific problems in psychoacoustics, acoustic design, soundscape studies, noise in the community, acoustic aspects of social organization, the acoustic aspects, language and interpersonal communication, electronic sound production, media analysis, theories of sound cognition, and information processing. Prerequisite: CMNS 259.

CMNS 362-6 Evaluation Methods for Applied Communication Research

Research design and techniques for the study of the introduction, uses and consequences of new media and technologies, new communication policies and practices in their socio-economic and cultural context, and communication in innovation and change. Prerequisite: at least 60 credit hours, including two of CMNS 253, 260 or 261.

CMNS 363-6 Approaches to Media and Audience Research

A survey and application of research approaches to media and audience analysis including content analysis, textual analysis, agenda setting, effects research, focus group and survey research, message evaluation and audience studies. Prerequisite: at least 60 credit hours, including one of CMNS 220, 221 or 223, and CMNS 260.

CMNS 371-4 The Structure of the Book Publishing Industry in Canada

An analysis of the various facets of the book publishing industry in Canada including ownership patterns, legal foundations, criteria for book selection and marketing. Includes examination of both commercial and educational publishing. The industry will be analyzed within the framework of Canadian cultural and other government policies affecting the industry. Prerequisite: 60 credit hours, including CMNS 110 and 130.

CMNS 372-4 The Publishing Process

Students will learn the book publishing process from the acquisition and editing of manuscripts through to production, promotion and distribution. Each topic proceeds from basic concepts and precepts to case studies of particular kinds of publishing companies, e.g., literary, regional and general trade and particular types of books (e.g., children's, genre, fiction and poetry). The publishing decision-to-publish process is simulated. Required readings focus on the history of book publishing, as well as on current developments. Prerequisite: 60 credit hours, including CMNS 110 and 130.

CMNS 375-4 Magazine Publishing

This course addresses the basic concepts and practices used in the magazine publishing industry in the areas of business, writing, editing, design, marketing, advertising, distribution, and production. It emphasizes readership and editorial policy, new technology and changing costs and revenue patterns. Prerequisite: 60 credit hours.

CMNS 386-4 Special Topics in Communication

Intensive analysis of a particular topic in the general area of communication. Prerequisite: Depends on topic, published before registration.

CMNS 387-4 Special Topics in Communication

Intensive analysis of a particular topic in the general area of communication. Prerequisite: depends on topic, published before registration.

CMNS 395-0 Communication Practicum I

First semester of work experience in the School of Communication's Co-operative Education Program. Prerequisite: Students must complete Bridging Online (visit www.sfu.ca/coop/brid for further details) at least two semesters before their anticipated co-op placement. Students must then register with the co-op program by the second week of the semester preceding the work semester of application, and have a minimum GPA of 2.70. Graded as pass/fail (P/F).

CMNS 396-0 Communication Practicum II

The second semester of work experience in the School of Communication Co-operative Education Program. Prerequisite: CMNS 395. Graded as pass/fail (P/F).

CMNS 408-4 Communication Network Project Group

An advanced workshop in network analysis focused on applied research. Prerequisite: two upper division CMNS courses and permission of the instructor.

CMNS 410-4 Media and Ideology

An advanced seminar in media studies focusing upon theoretical debates about the allegedly ideological character of mass media and mass culture. Prerequisite: 75 credit hours, including CMNS 310. Recommended: CMNS 331 and SA 327. Students who have taken CMNS 422 may not take this course for further credit.

CMNS 425-4 Applied Communication for Social Issues

An advanced seminar in applied communication that focuses on the research and strategic design of media messages, campaigns and programs for public awareness, education, and social change. This course involves the application of theories and approaches in critical media analysis to the tasks of media design and media use for public understanding, engagement and participation around social issues. Prerequisite: 75 credit hours, including CMNS 221 and one of CMNS 260, 261 or 262.

CMNS 426-4 Video Design for Social Communication

The workshop examines the growing role that video is playing in a variety of public relations, industrial, advocacy and educational contexts. The emphasis of this course is on issues of communication design in relation to the goals and values in specific communication forums. Prerequisite: 75 credit hours, including CMNS 226 and two of CMNS 220, 326, 358.

CMNS 428-4 Media Analysis Project Group

An advanced workshop in media analysis focused on applied research. Prerequisite: two upper division CMNS courses and permission of instructor.

CMNS 431-4 News Research and Analysis

Applied research seminar using techniques of textual and contextual analysis to test media themes and explore patterns of coverage and omission in Canada's new media. Students also have an opportunity to publicize their work through the NewsWatch Canada Project. Prerequisite: instructor's permission, normally granted on the basis of CGPA of at least 3.0, and 75 credit hours, including at least one of CMNS 235, 331 or 335, and at least one of CMNS 261 or 363.

CMNS 433-4 Issues in Communication/Cultural Policy

Advanced seminar on current issues in communication policy. Topics will be selected from among current policy issues in local, national and international aspects of broadcasting, the cultural industries, the arts and heritage. Prerequisite: 75 credit hours including CMNS 333 or 334.

CMNS 435-4 Information Rights in the Information Age

An advanced seminar to examine key information policy issues and the actors involved in setting policy (governments, information industry, news media, libraries, citizen groups) in Canada, with international comparisons. Prerequisite: 75 credit hours, including CMNS 261 and one of CMNS 240, 333, 334 or 353.

CMNS 437-4 Media Democratization: From Critique to Transformation

An advanced seminar on the normative debates, social bases, and strategic potential for media democratization in the context of emerging social movements and developed liberal democracies like Canada and the United States. This course complements other courses which critically examine state communication policies and the political economy and allegedly ideological character of corporate media. Here, we focus on campaigns and movements in civil society to define and build alternative communicative forms based on equality, democratic participation and/or human rights. Prerequisite: 75 credit hours, including CMNS 225, 240 or 311. Cannot be taken for further credit if student has taken CMNS 428 or 487 under the same title.

CMNS 438-4 Communication Policy Project Group

An advanced workshop in communication policy in media and information technology focussed on applied research. Prerequisite: two upper division CMNS courses and permission of the instructor.

CMNS 444-4 Political Economy of International Communication

An examination of the domestic and international implications of the development of mass media and telecommunications and the differential impact of the free flow of technology and information. Prerequisite: 75 credit hours, including CMNS 240, and 261 or 262.

CMNS 445-4 Media and Popular Culture in China

An exploration of the media and popular culture scene in reform-era China. A wide range of media and popular culture forms and practices (including films, television shows, lifestyle magazines, street tabloids, and popular rhymes) are analyzed in their theoretical and cultural context. The course will consider concrete institutional settings and dynamic relationships with official ideologies, market imperatives, and the everyday struggles and cultural sensitivities of various social groups during a period of epochal transformation in China. Prerequisite: 75 credit hours including CMNS 240, and 261 or 262; and one of CMNS 310, 331, 345, or 346. Students who have taken CMNS 428, 486 or 487 with this topic may not take CMNS 445 for further credit.

CMNS 446-4 The Communication of Science and the Transfer of Technology

Evaluation of the communication of scientific knowledge and the transfer of technology, both within industrialized settings and to non-industrialized settings. Specific reference to the communication of scientific knowledge in the context of the biotechnology industry, and new and emerging information technologies.
values related to the use of technologies and the role of science and technology in international development. Prerequisite: 75 credit hours, including CMNS 345 or 346, and one of CMNS 260, 261 or 262. Recommended: CMNS 253 and 362.

CMNS 447-4 Negotiation and Dialogue as Communication
This course provides frameworks and tools with which to understand and evaluate negotiation and evaluate negotiation as a form of communication. The objective of the course is an understanding of the role of communication in the negotiating process, and the consequences of different kinds of negotiation strategies in intercultural, international, competitive, and conflictual situations. It combines theoretical discussion with practical case studies, involves guest negotiators and analysts, and provides an appreciation of the world-wide scale and importance of negotiation as a basis for clarifying relationships. Prerequisite: 75 credit hours, including CMNS 347 and 362.

CMNS 448-4 International Communication Project Group
An advanced workshop in international communication and development focused on applied research. Prerequisite: two upper division CMNS courses and permission of the instructor.

CMNS 453-4 Issues in the Information Society
Advanced seminar to discuss issues in the interplay between contemporary society and new computer/communication technologies, at the level of comprehensive theories of society, on one hand, and major public policy, on the other. Prerequisite: 75 credit hours, including CMNS 353 and 362.

CMNS 454-4 Computer Mediated Work and Workplace Communication
An investigation of the content, quality and character of jobs and workplace communication systems that involve computers. An examination of the influence of managerial goals and workplace relations on the design and choice of hardware and software for: office automation; computer-aided and computer-integrated manufacturing systems; computer-aided design, expert systems, and electronic networks. Prerequisite: 75 credit hours, including CMNS 253. Recommended: CMNS 353 and 362.

CMNS 455-4 Women and New Information Technologies
In the 1970s, technological change came under the scrutiny of a wide range of interest groups. Research concerned with women and technological change documented that women were affected differently by technology than men, and that, in general, women occupy different positions in the technological change process than men. As interest in women and technological change has grown in the past 25 years, the benefits of focusing on gender as a variable of study have extended beyond making women’s experiences visible. Focusing on gender offers the possibility of discovering theoretical limitations which, when addressed, have implications that extend beyond the interests of women. Prerequisite: 75 credit hours, including any one of CMNS 253, 353, or 453; CMPT 320; WS 204.

CMNS 456-4 Communication to Mitigate Disasters
An examination of the special role communication and information systems play in efforts to mitigate effects of major emergencies and disasters. Topics include: Canadian and international disaster management processes and issues; principles of emergency communication planning and operation, and the application and influence of new communication and information technologies (including electronic networks) in hazard information gathering, interpretation, exchange and management. Prerequisite: 75 credit hours, including two of CMNS 230, 240, 253, and 353.

CMNS 458-4 Information Technology Project Group
An advanced workshop in applied information technology and its evaluation focussed on applied research. Prerequisite: two upper division CMNS courses and permission of instructor.

CMNS 472-4 Books, Markets and Readers
This course will examine the major markets for the sale of books, book buying and book reading. Special emphasis will be placed on popular genres and successful authors and outlets such as independent and chain bookstores, book clubs, libraries and specialty stores. Prerequisite: 75 credit hours including CMNS 372.

CMNS 473-4 Publication Design and Print Production
An examination of theory, principles and applications in publication design and print production including computer applications. The course focuses on magazines, books and electronic formats. Creative, marketing and production strategies in the design will all be explored. Prerequisite: 75 credit hours.

CMNS 474-4 The Business of Publishing
This course examines business practices within publishing firms. It emphasizes financial planning and operations, acquisitions, marketing and promotion. Prerequisite: 75 credit hours, including CMNS 372.

CMNS 478-4 Publishing Project Group
An advanced workshop in publishing analysis or design focussed on applied research. Prerequisite: two upper division CMNS courses and permission of the instructor.

CMNS 480-2 Directed Study
Independent reading and research on topics selected in consultation with the supervising instructor. Prerequisite: two upper division CMNS courses and consent of instructor. No more than 10 hours of directed study may be taken.

CMNS 481-3 Directed Study
Independent reading and research on topics selected in consultation with the supervising instructor. Prerequisite: two upper division CMNS courses and consent of instructor. No more than 10 hours of directed study may be taken.

CMNS 482-4 Directed Study
Independent reading and research on topics selected in consultation with the supervising instructor. Prerequisite: two upper division CMNS courses and consent of instructor. No more than 10 hours of directed study may be taken.

CMNS 483-5 Directed Study
Independent reading and research on topics selected in consultation with the supervising instructor. Prerequisite: two upper division CMNS courses and consent of instructor. No more than 10 hours of directed study may be taken.

CMNS 486-4 Special Topics in Communication
Intensive analysis of a particular topic in the general area of communication and/or attention to the work of a particular writer or school of thought. Prerequisite: Depends on topic; published before registration.

CMNS 487-4 Special Topics in Communication
Intensive analysis of a particular topic in communication and/or attention to the work of a particular writer or school of thought. Prerequisite: Depends on topic; published before registration.

CMNS 488-4 Selected Topics in Communication
Intensive analysis of a particular topic in the general area of communication. Prerequisite: depends on topic; published before registration.

CMNS 489-4 Field Placement
For students who have at least 24 upper level credit hours in communication, this course offers the opportunity to work under faculty supervision in a field placement situation related to one of the areas of concentration in communication. Arrangements for field placement and faculty supervision are the responsibility of the student, and enrolment will depend upon the availability of faculty resources in any semester. Prerequisite: 75 credit hours and permission of the school.

CMNS 494-0 Communication Practicum III
The third semester of work experience for students in the School of Communication Co-operative Education Program. Prerequisite: CMNS 396. Graded as pass/fail (P/F).

CMNS 495-0 Communication Practicum IV
The fourth semester of work experience for students in the School of Communication Co-operative Education Program. Prerequisite: CMNS 494. Graded as pass/fail (P/F).

CMNS 496-0 Communication Practicum V
An optional fifth semester of work experience for students in the School of Communication Co-operative Education Program. Prerequisite: CMNS 495. Graded as pass/fail (P/F).

CMNS 497-5 Honors Research Proposal
Preparation for honors research project, including literature review, ethics approval (if necessary), and presentation of work in progress at end of semester. Prerequisite: students accepted into honors program only.

CMNS 498-10 Honors Research Project
Intensive work in a particular topic in the general field of communication. Involves an extensive individual research project under the direct supervision of at least two committee members (at least one of whom is a CMNS faculty member) who will provide guidance and critical feedback as necessary. Presentation of completed project at end of semester. Prerequisite: successful completion of CMNS 497.

CMNS 800-5 Contemporary Approaches in Communication Studies
This course surveys current interdisciplinary perspectives in communication studies and theory. It is normally offered in the fall term, and expected in the first year of graduate study.

CMNS 801-5 Design and Methodology in Communication Research
A survey course which examines the problems, methods and theoretical assumptions in communication research using case studies of research design and methods. Students may design a research project and conduct a small pilot study in a selected area. Normally offered in the spring semester and expected in the first year of graduate study.

CMNS 802-5 History of Communication Theory
A survey of classic works, issues and debates in the history of communication theory.

CMNS 804-5 Seminar in Advanced Communication Theory

CMNS 805-5 CMNS Research Methods and Techniques
Survey of research methodology and techniques used in empirical communication studies. Includes research design, measurement, and the use of the computer in evaluation.

CMNS 815-5 Social Construction of Communication Technologies
A study of the social theory of information technologies, examining issues affecting computer-mediated communication.
**CMNS 830-5 Popular Culture and Media Theory**
Examines recent debates in popular culture and media theory, including post-modernism, hegemony, resistance and culture at the margin.

**CMNS 840-5 Political Economy of Communications**
A study of the political, economic and social process that produces the structure and policies of mass media, and of telecommunication agencies in their historical setting.

**CMNS 845-5 Communication, Knowledge Systems and Development**
A study of communication development, with a special emphasis on indigenous knowledge systems, the processes of globalization and cross-cultural communication, and the sustainability of local cultures. Prerequisite: one of CMNS 800, 801, 802.

**CMNS 850-5 Directed Readings and Research**
Pursuance of particular areas of interest related to a student's program.

**CMNS 851-5 Directed Studies**
Pursuance of interest in specific areas, including field studies related to the student's program. May include work and study in supervised professional settings.

**CMNS 855-5 Selected Topics in Communication Studies**
Specialized one-time graduate course offerings on topics related to the current research of school faculty of visiting professors.

**CMNS 856-5 Graduate Seminar**
Advanced work in an area of specialization. Review and evaluation of research in progress.

**CMNS 857-5 Selected Topics in Communication Studies**
Specialized graduate course offering on a topic related to the current research of school faculty or visiting professor.

**CMNS 858-5 Selected Topics in Communication Studies**
Specialized graduate course offering on a topic related to the current research of school faculty or visiting professor.

**CMNS 859-5 Acoustic Dimensions of Communications**
Special topics in sound and communication studies with emphasis on specific problems in psycho-acoustics, theories of sound cognition and information processing, soundscape studies, acoustic design, community noise surveys, media analysis and related technology. Students will gain experience in designing and conducting research projects in one of these areas. Prerequisite: CMNS 358 or equivalent.

**CMNS 860-2 Graduate Colloquium**
Discussion of essentials of researching, writing, and defending a thesis. Presentation by students of thesis related research plans or results, thesis architecture, of finished chapters for critical review by faculty and students. MA students must complete this course once before proceeding to a thesis defence. S/U standing only.

**CMNS 880-5 Directed Readings and Research**
Supervised enquiry in concentrated areas of specialization.

**CMNS 881-5 Research Internship**
Work and study in an approved professional setting.

**CMNS 882-5 Research Field Work**
External research beyond regular contact with the University.

**CMNS 891-0 Co-Op Practicum I**
**CMNS 892-0 Co-Op Practicum II**
**CMNS 895-6 Comprehensive Examination**
Examination of three areas of which one must be on the theoretical or methodological framework/procedures indicated by the proposed dissertation. S/U standing only. The exam may be retaken once in the event of unsatisfactory performance.

**CMNS 898-6 MA Thesis**
**CMNS 899-6 PhD Thesis**

**Community Economic Development CED**

**Faculty of Arts and Social Sciences**

**CED 201-3 Introduction to Community Economic Development**
A survey of community economic development. The focus of this course is on understanding the strengths and weaknesses of conventional approaches to economic development; the rationale for alternative approaches to economic development; the varying definitions and interpretations of community and of development; and the components which must be addressed by any coherent economic development strategy. Prerequisite: CED certificate program approval, 30 credit hours or permission of the Centre for Sustainable Community Development (CSCD). Corequisite: certificate students may not take this course concurrently with upper division CED courses.

**CED 301-4 Sustainable Community Development**
A more sophisticated theoretical foundation for understanding sustainable development at the community level, including an integrated approach to environmental, economic, and social aspects of development. The course includes sections on natural and social capital, and on making community policy (e.g., the role of local government, economic instruments, etc) which are essential for the subsequent 400 level courses in the program. Prerequisite: CED certificate program approval and CED 201 or CED diploma program approval or completion of 60 credit hours.

**CED 401-4 Concepts, Techniques and Principles for CED Practice**
Study of concepts and techniques which are essential for the subsequent 400 level courses in the program.

**CED 403-4 Models and Cases in Community Economic Development**
An integration of social, economic and ecological issues from previous CED courses with the methods for case studies of communities and their socio-economic development processes. Prerequisite: CED 301, or permission of Centre for Sustainable Community Development (CSCD).

**CED 404-4 Project in Community Economic Development**
Provides a situation in which a student applies ideas and models acquired in the program to a practical problem in community economic development. Prerequisite: CED 301, 401, and 403.

**CED 410-4 Special Topics in Community Economic Development**
A specific topic within the field of CED, not covered by regularly scheduled, required courses in the program. Prerequisite: CED 301 or permission of the Centre for Sustainable Community Development (CSCD).

**CED 412-4 Directed Studies in Community Economic Development**
An individual study designed to permit students to significantly expand their knowledge base and apply their critical thinking in CED. The student must develop a readings list in consultation with the CSCD's academic supervisor and obtain approval for it. A critical, annotated bibliography must be regularly submitted throughout the semester, and a final paper will be required. Non post baccalaureate diploma students must apply for special permission to take this course. Enrollment is limited. Prerequisite: community economic development post baccalaureate diploma program approval, CED 301 and 401.

**Computing Science CMPT**

**Faculty of Applied Sciences**

**CMPT 001-3 Computers and the Activity of People**
Concerned with computer literacy and appreciation. What are computers? What do they do? How do they do it? How will they affect us? Illustrations given of applications of computing in the arts, commerce, industry, science and everyday activity. Programming is introduced but not emphasized; instead, students will be exposed to a variety of computer hardware and software elements that are in wide use. No special preparation. Students must be enrolled in BC high school computer science 12, or those who have obtained credit for or are currently enrolled in any other Computing Science course may not take CMPT 001 for further credit.

**CMPT 100-3 Software Packages and Programming**
Introduction to the fundamentals of computer operation and computer programming. The use of software packages is emphasized, focussing on spreadsheets, databases, and presentation graphics. Techniques of solving problems using structured programs in a modern database programming environment are introduced. Prerequisite: BC mathematics 12 or MATH 100 or MATH 110. Students with credit for CMPT 101, 102, 103, 120, 126 or 128 may not take CMPT 100 for further credit.

**CMPT 102-3 Introduction to Scientific Computer Programming**
A programming course which will provide the science student with a working knowledge of a scientific programming language and an introduction to computing concepts, structured programming, and modular design. The student will also gain knowledge in the use of programming environments including the use of numerical algorithm packages. Corequisite: MATH 152 or 155 (or 158). Students with credit for CMPT 101, 102, 103, 120, 126 or 128 may not take CMPT 102 for further credit.

**CMPT 110-3 Event Driven Programming in Visual Basic**
Introduction to programming in the event-driven paradigm using the Visual Basic language. Forms, controls, events, menus, objects; subprograms, modular design; decisions and repetition; file and data management; special features. Students who have obtained credit for, or are currently enrolled in a computing science course at the 200 level or higher may not take CMPT 110 for further credit except with permission of the School of Computing Science. Prerequisite: BC mathematics 12 (or equivalent) or MATH 100 or MATH 110.

**CMPT 116-3 Introduction to Object-Oriented Program and SmallTalk**
This is a self-study course that introduces students to object-oriented design and programming using the SmallTalk programming language. A study guide is provided and the student will have regular meetings with the instructor. Prerequisite: CMPT 101 or 102 or 103. This course may not be taken for credit if the student has studied SMALLTALK in a previous course.

**CMPT 117-3 Introduction to Internet Programming - Java**
This is a course for students who wish to learn about the Java programming language and how to develop internet based applications. Students who have...
CMPT 128-3 Introduction to Computing Science and Programming for Engineers

An introduction to computing science and computer programming, suitable for students wishing to major in Engineering Science or a related program. This course introduces basic computing science concepts, and fundamentals of object oriented programming. Topics include: fundamental algorithms and problem solving; abstract data types and elementary data structures; basic object-oriented programming and software design; elements of empirical and theoretical algorithmics; computation and computability; specification and program correctness; and history of computing science. Prerequisite: BC MATH 12 (or equivalent). Students with credit for CMPT 101, 104, 125, or 128. Recommended: CMPT 201 or 225.

CMPT 150-3 Introduction to Computer Design

Digital design concepts are presented in such a way that students will learn how logic blocks can be designed and used to construct a simple computer. Topics covered include: basic Von Neumann computer architecture; an introduction to assembly language; combinational logic design; and sequential logic design. An interactive logic simulation environment will be provided for assignments. Assembly language programming is introduced. This course is identical to ENSC 150 and students cannot take both courses for credit. Students who have taken CMPT 290 cannot take this course for further credit.

CMPT 165-3 Introduction to Multimedia and the Internet

The goal of this course is to serve as an introduction to the use of computers in everyday life. Concepts underlying the use of multimedia and the Internet are examined, as are their applications in various fields. Students who have obtained credit for, or are currently enrolled in a computing science course at the 200 level or higher may not take CMPT 165 for further credit. Students who have taken CMPT 118 may not take CMPT 165 for further credit.

CMPT 212-3 Object-Oriented Applications Design in C++

Introduction to object-oriented software design concepts, principles, the use of the C++ language, other advanced C++ features, and object-oriented programming and software design. Topics include: the object oriented programming environment; and history of computing science. Prerequisite: BC MATH 12 (or equivalent) and CMPT 120. Students with credit for CMPT 101, 104 or any course numbered CMPT 200 or higher may not take this course for further credit.

CMPT 216-3 Special Topics in Computing Science

Special topics in computing science which are of current interest or are not covered in the regular curriculum will be offered from time to time depending on availability of faculty and on student interest. (lecture/tutorial) Prerequisite: CMPT 201 or 205

CMPT 225-3 Data Structures and Programming

Introduction to a variety of practical and important data structures and methods for implementation and for experimental and analytical evaluation. Topics include: stacks, queues and lists; search trees; hash tables and algorithms; efficient sorting; object-oriented programming; time and space efficiency analysis; and experimental evaluation. Prerequisite: CMPT 101, 104, 125, 126, or 128. MACM 101, 104, 201, 225, or CMPT 201 may not take this course for further credit.

CMPT 250-3 Introduction to Computer Architecture

This course deals with the major concepts embodied in computer hardware architecture. In particular, the organization, design and limitations of the major building blocks in modern computers is covered in detail. Topics will include: processor organization; control logic design; memory systems; and architectural support for operating systems and programming languages. A hardware description language will be used to describe and work with design concepts. Prerequisite: CMPT/ENSC 150, or CMPT 290 or 105 with permission of instructor. This course is identical to ENSC 250 and students cannot take both courses for credit. Students who have taken CMPT 390 may not take CMPT 250 for further credit.
CMPT 305-3 Computer Simulation and Modeling
Introduces the techniques for modelling and computer simulation of complex systems. The philosophy and practice of computer simulation and intuition of Monte Carlo simulation will be reviewed. The student will learn at least one simulation language (Simula, Simscript, GPSS, CCS or other languages implemented at Simon Fraser University), apply it to a model, and simulate a non-trivial system from his/her area of interest. Prerequisite: CMPT 201 or 225, MACM 101, STAT 270.

CMPT 307-3 Data Structures and Algorithms
Analysis and design of data structures for lists, sets, trees, dictionaries, and priority queues. A selection of topics chosen from sorting, memory management, graphs and graph algorithms. Prerequisite: CMPT 201 or 225, MACM 201, MATH 152 and MATH 232.

CMPT 308-3 Computability and Complexity
This course introduces students to formal models of computations such as Turing machines and RAMs. Notions of tractability and intractability are discussed both with respect to computability and resource requirements. The relationship of these concepts to logic is also covered. Prerequisite: MACM 201.

CMPT 310-3 Artificial Intelligence Survey
Provides a unified discussion of the fundamental approaches to the problems in artificial intelligence. The topics considered are: representation and search methods; game playing, heuristic programming; pattern recognition and classification; theorem-proving; question-answering systems; natural language understanding; computer vision. Prerequisite: CMPT 201 or 225.

CMPT 318-3 Special Topics in Computing Science
Special topics in computing science at the 300 level. Topics that are of current interest or are not covered in regular curriculum will be offered from time to time depending on availability of faculty and student interest. Prerequisite: CMPT 201 or 225.

CMPT 320-3 Social Implications – Computerized Society
An examination of social processes that are being automated and implications for good and evil, that may be drawn from the evolution of society, and the implications of various systems and systems design. Prerequisite: CMPT 201 or 225, MACM 101.

CMPT 340-3 Computers in Biomedicine
The principles involved in using computers for data acquisition, real-time processing, pattern recognition and experimental control in biology and medicine will be developed. The use of large data bases and simulation will be explored. Prerequisite: completion of 80 credits including CMPT 101, 125, 126 or 128 (or 102 or 104 with a grade of B or higher).

CMPT 341-3 Introduction to Computational Biology
This course introduces students to the computing science principles underlying computational biology. The emphasis is on the design, analysis and implementation of computational techniques. Possible topics include algorithms for sequence alignment, database searching, gene finding, phylogeny and structure analysis. Prerequisite: CMPT 201 or 225, MACM 201.

CMPT 354-3 Database Systems I
Logical representations of data records. Data models. Studies of some popular file and database systems. Document retrieval. Other related issues such as database administration, data dictionary and security. Prerequisite: CMPT 201 or 225, MACM 101.

CMPT 361-3 Introduction to Computer Graphics
This course provides an introduction to the fundamentals of computer graphics. Topics include graphics display and interaction hardware, basic algorithms for 2D primitives, anti-aliasing, 2D and 3D geometrical transformations, 3D projections/viewing, Polygonal and hierarchical models, hidden-surface removal, basic rendering techniques (color, shading, raytracing, radioactivity), and interaction techniques. Prerequisite: CMPT 201 or 225 and MATH 232. Students with credit for CMPT 351 may not take CMPT 361 for further credit.

CMPT 363-3 User Interface Design
This course provides a comprehensive study of user interface design. Topics include: goals and principles of UI design (systems engineering and human factors), historical perspective, current paradigms (widget-based, mental model), graphic design, ergonomics, metaphor, constructivist/iterative approach, and visual languages) and their evaluation, existing tools and packages (dialogue models, event-based systems, prototyping), future paradigms, and the social impact of UI. Prerequisite: CMPT 201 or 225.

CMPT 365-3 Multimedia Systems
Multimedia systems design, multimedia hardware and software, issues in effectively representing, processing, and retrieving multimedia data such as text, graphics, sound and music, image and video. Prerequisite: completion of 60 credits including CMPT 201 or 225.

CMPT 370-3 Information System Design
This course focuses on the computer-related problems of information system design and procedures of design implementation. Well-established design methodologies will be discussed, and case studies will be used to illustrate various techniques of system design. Prerequisite: CMPT 275 and 354.

CMPT 371-3 Data Communications and Networking
Data communication fundamentals (data types, rates, and transmission media). Network architecture for local and wide areas. Communications protocols suitable for various architectures. ISO protocols and internetworking. Performance analysis under various loadings and channel error rates. Prerequisite: CMPT 201 or 225. CMPT/ENSC 150 and MATH 151 or 220 or 230.

CMPT 379-3 Principles of Compiler Design
This course covers the key components of a compiler for a high level programming language. Topics include lexical analysis, parsing, type checking, code generation and optimization. Students will work in teams to design and implement an actual compiler making use of tools such as lex and yacc. Prerequisite: MACM 201, CMPT 150 and 201 or 225.

CMPT 383-3 Comparative Programming Languages
Various concepts and principles underlying the design and implementation of programming languages are considered in the context of procedural, object-oriented, functional and logic programming languages. Topics include data and control structures, facilities for modularity and data abstraction (polymorphism), and formal semantics. Prerequisite: CMPT 201 or 225, MACM 101.

CMPT 384-3 Symbolic Computing
This course considers modelling and programming techniques appropriate for symbolic data domains such as mathematical expressions, logical formulas, grammars and programming languages. Topics include recursive and functional programming style, grammar-based data abstraction, simplification and reduction transformations, conversions to canonical form, environment data structures and interpreters, metaprogramming, pattern matching and theorem proving. Prerequisite: CMPT 201 or 225; MACM 101.

CMPT 401-3 Operating Systems
II
This second course on operating systems studies in depth some of the issues introduced in CMPT 300, as well as new, more advanced topics in modern operating systems. Topics may include interprocess communication, threads, remote procedure calls, language constructs for concurrency, deadlocks, virtual machines, distributed systems, distributed concurrency control, group communication, issues in file system design, security and protection, performance evaluation. Prerequisite: CMPT 300 and 371.

CMPT 405-3 Design and Analysis of Computing Algorithms
Models of computation, methods of algorithm design; complexity of algorithms; algorithms on graphs, NP-completeness, approximation algorithms, selected topics. Prerequisite: CMPT 307.

CMPT 406-3 Computational Geometry
Mathematical preliminaries; convex hull algorithms; intersection problems; closest-point problems and their applications. Prerequisite: CMPT 307.

CMPT 407-3 Computational Complexity
Machine models and their equivalences, complexity classes, separation theorems, the polynomial hierarchy, Cook’s theorem, NP-completeness, the polynomial time hierarchy, boolean circuit models and parallel complexity theory, other topics of interest to the students and instructor. Prerequisite: CMPT 307.

CMPT 408-3 Theory of Computer Networks/Communications
Network design parameters and goals, dynamic networks and permutations, routing in direct networks, structured communication in direct networks, other topics of interest to the students and instructor. Prerequisite: CMPT 307 and 371.

CMPT 409-3 Special Topics in Theoretical Computing Science
Current topics in theoretical computing science and computer science. Prerequisite: CMPT 307.

CMPT 411-3 Knowledge Representation
Formal and foundational issues dealing with the representation of knowledge. Syntactical and computational systems are covered. Questions of semantics, incompleteness, non-monotonicity and others will be examined. As well, particular approaches, such as procedural or semantic system, may be discussed. Prerequisite: completion of nine credit hours in Computing Science upper division courses or, in exceptional cases, permission of the instructor.

CMPT 412-3 Computational Vision
Computational approaches to image understanding will be discussed in relation to theories about the operation of the human visual system and with respect to practical applications in robotics. Topics will include edge detection, shape from shading, stereopsis, optical flow, Fourier methods, gradient space, three-dimensional object representation and constraint satisfaction. Prerequisite: MATH 152, and nine credit hours in Computing upper division courses or permission of the instructor.

CMPT 413-3 Computational Linguistics
This course examines the theoretical and applied problems of constructing and modeling systems, which aim to extract and represent the meaning of natural language sentences or of whole discourses, but drawing on contributions from the fields of linguistics, cognitive psychology, artificial intelligence and computing science. Prerequisite: completion of nine credit hours in Computing Science upper division
courses or, in exceptional cases, permission of the instructor.

CMPT 414-3 Model-Based Computer Vision
This course covers various topics in computer vision with the emphasis on the model-based approach. Main subjects include 2-D and 3-D representations, matching, reconstruction, model-based vision systems. State-of-the-art robot vision systems will be used extensively as study cases. The solid modelling and CAD aspects of this course should also interest students of computer graphics. Prerequisite: MATH 152 and nine credit hours in CMPT upper division courses, or permission of the instructor.

CMPT 415-3 Special Research Projects
To be individually arranged.

CMPT 416-5 Special Research Projects
To be individually arranged.

CMPT 417-3 Intelligent Systems
Intelligent Systems using modern constraint programming and heuristic search methods. A survey of this rapidly advancing technology as applied to scheduling, planning, design and configuration. An introduction to constraint programming, heuristic search, constructive (backtrack) search, iterative improvement (local) search, mixed-initiative systems and combinatorial optimization. Prerequisite: CMPT 201 or 225.

CMPT 418-3 Computational Cognitive Architecture
Computationally-oriented theories of human cognitive architecture are explored, beginning with neurologically inspired (neural network) models of "low-level" brain processes, and progressing upwards to higher-level symbolic processing, of the kind that occurs in rule-following and problem solving. Arguments concerning the need for modular processing and combinatorially adequate forms of mental representation are examined at length. Prerequisite: CMPT 201. Recommended: CMPT 310.

CMPT 419-3 Special Topics in Artificial Intelligence
Current topics in artificial intelligence depending on faculty and student interest. Prerequisite: CMPT 310 or permission of the instructor.

CMPT 426-0 Practicum I
First semester of work experience in the School of Computing Science Co-operative Education Program. Prerequisite: Students must complete Bridging Online (visit www.sfu.ca/comp/bridging for further details) at least two semesters before their anticipated co-op placement. Students must then register with the co-op program by the second week of the semester preceding the work semester. Normally, students will have completed a minimum of 45 credit hours by the end of the semester of application, CMPT 275 and have a minimum CGPA of 2.70. Graded as pass/fail (P/F).

CMPT 427-0 Practicum II
The second semester of work experience for students in the Computing Science Co-operative Education Program. Prerequisite: CMPT 426, CGPA of 2.70. Graded as pass/fail (P/F).

CMPT 428-0 Practicum III
The third semester of work experience for students in the Computing Science Co-operative Education Program. Prerequisite: CMPT 427, CGPA of 2.70. Graded as pass/fail (P/F).

CMPT 429-0 Practicum IV
The fourth semester of work experience for students in the Computing Science Co-operative Education Program. Prerequisite: CMPT 428, CGPA of 2.70. Graded as pass/fail (P/F).

CMPT 430-0 Practicum V
An optional fifth semester of work experience for students in the Computing Science Co-operative Education Program. Prerequisite: CMPT 429, CGPA of 2.70. Graded as pass/fail (P/F).

CMPT 454-3 Database Systems II
An advanced course on database systems which covers crash recovery, concurrency control, transaction processing, distributed database systems as the core material and a set of selected topics based on the new developments and research interests, such as object-oriented data models and systems, extended relational systems, deductive databases, and knowledge integrity. Prerequisite: CMPT 300 and 354.

CMPT 459-3 Special Topics in Database Systems
Current topics in database information systems and databases according to the interests of the faculty and student interest. (lecture/laboratory) Prerequisite: CMPT 354.

CMPT 461-3 Advanced Computer Graphics
This course covers advanced topics and techniques in computer graphics. Topics include: solid modelling, curves and surfaces, fractals, particle systems, advanced rendering techniques (color spaces, shading, raytracing, radiosity, texture mapping, stereoscopy), animation, and post-production techniques. Applications in virtual reality, human figure animation, CAD, scientific visualization, and other research areas will be discussed. Prerequisite: CMPT 361, MACM 201 and 316. Students with credit for CMPT 451 may not take CMPT 461 for further credit.

CMPT 466-3 Animation
Topics and techniques in animation, including: the history of animation, computers in animation, traditional animation approaches, and computer animation techniques such as geometric modelling, interpolation, camera controls, cinematics, dynamics, constraint-based animation, realistic motion, temporal aliasing, digital effects and post production. Prerequisite: CMPT 361 and MACM 316 or permission of the instructor.

CMPT 469-3 Special Topics in Computer Graphics
Current topics in computer graphics depending on faculty and student interest. Prerequisite: CMPT 361.

CMPT 470-3 Web-based Information Systems
This course examines: two-tier/multi-tier client/server architectures; the design and development of Web-based information system: web servers/browsers; programming/scripting tools for clients and servers; database access; transport of programming objects; messaging systems; security; and applications (such as e-commerce and on-line learning). Prerequisite: CMPT 354 and 371.

CMPT 471-3 Networking II
This course covers the fundamentals of higher level network functionality such as remote procedure/object calls, name/address resolution, network file systems, network security and high speed connectivity/bridging/switching. Prerequisite: CMPT 300 and 371.

CMPT 475-3 Software Engineering II
Students will study in-depth the techniques, tools and standards needed in the management of software development. Topics will include software process and quality standards, life cycle models, requirements specification issues, project estimation, planning and tracking, project management tools, team dynamics and management, configuration and change management techniques and tools, metrics, quality assurance and test techniques, professional and legal issues. Prerequisite: CMPT 275 and 15 semester hours of upper division courses. Recommended: co-op experience.
two other qualified faculty members. Prerequisite: Enrolment in Graduate Diploma in Bioinformatics. This course is identical to MBB 611 and students can not take both courses for credit.

CMPT 612-6 Research Rotation II
One semester of original bioinformatics research conducted in the lab of a designated mentor. Students are required to write their results in a scientific journal format and defend these results before a panel consisting of the project mentor plus two other qualified faculty members. Prerequisites: Enrolment in Graduate Diploma in Bioinformatics. This course is identical to MBB 612 and students can not receive credit for both courses.

CMPT 613-6 Research Rotation III
One semester of original bioinformatics research conducted in the lab of a designated mentor. Students are required to write their results in a scientific journal format and defend these results before a panel consisting of the project mentor plus two other qualified faculty members. Prerequisites: Enrolment in Graduate Diploma in Bioinformatics. This course is identical to MBB 613 and student can not receive credit for both courses.

CMPT 701-3 Computability and Logic
Deep connections between logic and computation have been evident since early work in both areas. More recently, logic-based methods have led to important progress in diverse areas of computing science. This course will provide a foundation in logic and computability suitable for students who wish to understand the application of logic in various areas of CS, or as preparation for more advanced study in logic or theoretical CS.

CMPT 705-3 Design and Analysis of Algorithms
The objective of this course is to expose students to basic techniques in algorithm design and analysis. Topics will include greedy algorithms, dynamic programming, advanced data structures, network flows, randomized algorithms.

CMPT 706-3 Parallel Algorithms
The fundamentals of the design and analysis of parallel algorithms. Topics will include a introduction of parallel models (like PRAM, networks), communication complexity, parallel complexity theory, geometric algorithms..

CMPT 710-3 Computational Complexity
This course provides a broad view of theoretical computing science with an emphasis on complexity theory. Topics will include a review of formal models of computation, NP-completeness, parallel and distributed complexity theory; design and analysis of efficient algorithms; survey of structural complexity including complexity hierarchies, NP-completeness, and oracles; approximation techniques for discrete problems.

CMPT 720-3 Artificial Intelligence
Artificial Intelligence brings concepts such as computation, process, sub-procedure, data structure, and debugging to bear upon questions traditionally raised by psychologists, linguists, and philosophers. In this course we will study a representative sample of computational intelligence concerned with how knowledge can be represented and manipulated by reasoning programs. This course addresses problems dealing with the design of languages for representing knowledge, the formal interpretation of these languages and the design of computational mechanisms for making inferences. Since much of Artificial Intelligence requires the specification of a large body of domain-specific knowledge, this area lies at the core of AI. Recommended: CMPT 310 or CMPT 710.

CMPT 725-3 Logical Methods in Computational Intelligence
Provides an in-depth introduction on several new developments in computational logic for intelligent systems. In particular, we shall cover three areas of strategic importance: natural language processing, objective logic programming and constraint-based logic programming. The purpose is to introduce graduate students to the frontiers of computational logic research and applications.

CMPT 730-3 Foundations of Programming Languages
This course will cover basic concepts in the area of programming languages. The course will be largely of a theoretical nature and will concentrate on fundamental concepts of lasting importance, rather than topics of current interest.

CMPT 731-3 Functional Programming
This course will cover functional programming including introduction to a functional programming language, program transformation and verification, implementation of functional programming languages, and other selected topics which may include parallel evaluation of functional programs, analysis of performance, and advanced applications. Students who have taken CMPT 831 may not take this course for further credit.

CMPT 740-3 Database Systems
Introduction to advanced database system concepts, including query processing, transaction processing, distributed and heterogeneous databases, object-oriented and object-relational databases, data mining and data warehousing, spatial and multimedia systems and Internet information systems.

CMPT 741-3 Foundations of Data Mining
The student will learn basic concepts and techniques of data mining. Unlike data management required in traditional database applications, data analysis aims to extract useful patterns, trends and knowledge from raw data for decision support. Such information are implicit in the data and must be mined to be useful..

CMPT 745-3 Software Engineering
This course examines fundamental principles of software engineering and state-of-the-art techniques for improving the quality of software designs. With an emphasis on methodological aspects and mathematical foundations, the specification, design and test of concurrent and reactive systems is addressed in depth. Students learn how to use formal techniques as a practical tool for the analysis and validation of key system properties in early design stages. Applications focus on high level design of distributed and embedded systems.

CMPT 750-3 Computer Architecture
Parallel processing: SIMD & MIMD systems, pipelining, data flow architecture; micro programming; control memory minimization, optimization and verification of micro-programs.

CMPT 755-3 Compiler Theory
Precedence, LL(k), LR(k) grammars; SLR(k), LALR(k), I(k)LR(k) parsing techniques; translation grammars; compiler organization, code generation and optimization; memory allocation for object programs; garbage collection. Students who have taken CMPT 830 may not take this course for further credit.

CMPT 760-3 Operating Systems
This course will discuss design issues relating to the functionality and performance of modern workstation operating systems, such as methods for sharing memory, file and data objects, and choice of communication protocols. The special needs of high performance multiprocessor systems and real time systems will also be addressed.

CMPT 765-3 Computer Communication Network
This course will cover the fundamentals and recent advances in computer communication networks. The emphasis will be on the design and analysis of networks, especially switching, routing, and network topology.

CMPT 770-3 Computer Graphics
This course covers advanced topics and techniques in computer graphics. Students will be expected to understand the fundamental concepts of graphics, curves and surfaces, fractals, particle systems, advanced rendering techniques, animation and post-production techniques. Research topics in virtual reality, human figure animation, CAD, scientific visualization and other areas will also be discussed. Students with credit for CMPT 461 or equivalent may not take CMPT 770 for further credit.

CMPT 773-3 User Interface Design
This course provides an overview of a number of research areas in human-computer interaction. Topics may include: overview of HCI (historical/intellectual, GUI, case studies), interactive systems (design, evaluation, software development), interaction methods (vision, graphic design, touch, speech, etc.), human factors (information processing, capabilities), research frontiers (computer supported co-operative work, intelligent systems, hypertext, multimedia, virtual reality, cyberspace). Recommended: CMPT 363 or equivalent (instructor discretion). Students who have taken CMPT 873 may not take this course for further credit.

CMPT 775-3 Scientific Visualization
This course presents advanced topics in the field of scientific visualization. Topics include: an introduction to visualization (importance, basic approaches and existing tools), abstract visualization methodology, 2D and 3D display and interaction, advanced techniques (polygon reduction, volume rendering, multivariate representations, parallel algorithms, etc.) and virtual reality. Prerequisite: CMPT 316, CMPT 461 or equivalent (by permission of instructor). Students who have taken CMPT 878 may not take this course for further credit.

CMPT 813-3 Computational Geometry
This course covers recent developments in discrete, combinatorial, and algorithmic geometry. Emphasis is placed on developing techniques and solving specific problems. Open problems and applications will be discussed.

CMPT 814-3 Algorithmic Graph Theory
Algorithm design often stresses universal approaches for general problem instances. If the instances possess a special structure, more efficient algorithms are possible. This course will examine graphs and networks with special structure, such as chordal, interval, and permutation graphs, which allows the development of efficient algorithms for hard computational problems.

CMPT 815-3 Algorithms of Optimization
This course will cover a variety of optimization models, that naturally arise in the area of management science and operations research, which can be formulated as mathematical programming problems.
CMPT 816-3 Theory of Communication Networks
This course investigates the design, classification, modelling, analysis, and efficient use of communication networks such as telephone networks, interconnection networks in parallel processing systems, and special-purpose networks.

CMPT 817-3 Knowledge Bases with Visual and Natural Language
This course examines recent significant advances in knowledge bases, focusing in particular on knowledge representation, reasoning, and integration of knowledge bases with friendly front ends such as visual and natural language interfaces. It is expected that students who complete the course will gain sufficient background to begin research projects at the master's or doctoral levels in the topics covered. Students from computing science, mathematics, linguistics, education, philosophy, psychology, cognitive science and engineering science are especially encouraged to register for this course.

CMPT 820-3 Multimedia Systems
This seminar course covers current research in the field of multimedia computing. Topics include multimedia data representation, compression, retrieval, network communications and multimedia systems. Computing science graduate student or permission of the instructor.

CMPT 821-3 Robot Vision
This course discusses issues and research results pertinent to robot vision. Topics include depth recovery for robot navigation, three dimensional object recognition and scene analysis, model-based approaches, parallel vision algorithms and architectures, and case studies of contemporary robot vision systems.

CMPT 822-3 Computational Vision
A seminar based on the artificial intelligence approach to vision. Computational vision has the goal of discovering the algorithms and heuristics which allow a two dimensional array of light intensities to be interpreted as a three dimensional scene. By reading and discussing research papers — starting with the original work on the analysis of line drawings, and ending with the most recent work in the field — participants begin to develop a general overview of computational vision, and an understanding of the current research problems.

CMPT 823-3 Formal Topics-Knowledge Representation
This course surveys current research in formal aspects of knowledge representation. Topics covered in the course will centre on various features and characteristics of encodings of knowledge, including incomplete knowledge, non monotonic reasoning, inexact and imprecise reasoning, meta-reasoning, etc. Suggested preparation: a course in formal logic and a previous course in artificial intelligence.

CMPT 825-3 Natural Language Processing
In this course, theoretical and applied issues related to the development of natural language processing systems and specific applications are examined. Investigations into parsing issues, different computational linguistic formalisms, natural language syntax, semantics, and discourse related phenomena will be considered and an actual natural language processing system will be developed.

CMPT 826-3 Automated Learning and Reasoning
This course covers topics shared both by AI and cognitive science. Current AI research papers are examined from the perspective of cognitive science, and vice versa. Topics covered in a given semester will vary, depending upon the instructor, but most of the following topics will be addressed in any given semester: connectionist models of intelligence; 'human-like' automated deduction; reasoning by analogy; topics in natural language; automated concept learning; and computational approaches to semantics. Prerequisite: at least one graduate or undergraduate AI course, or instructor's permission.

CMPT 827-3 Intelligent Systems
Intelligent systems are knowledge-based computer programs which emulate the reasoning abilities of human experts. This introductory course will analyse the underlying artificial intelligence methodology and survey advances in rule-based systems, constraint solving, incremental reasoning, intelligent backtracking and heuristic local search methods. We will look specifically at research applications in intelligent scheduling, configuration and planning. The course is intended for graduate students with a reasonable background in symbolic programming.

CMPT 829-3 Special Topics in Bioinformatics
Examination of recent literature and problems in bioinformatics. Within the CIHR graduate bioinformatics training program, this course will be offered alternatively as the problem-based learning course and the advanced graduate seminar in bioinformatics (both concurrent with MBB 829).

Prerequisite: Permission of the instructor.

CMPT 842-3 Concurrency Control in Database Systems
Transactions, recoverability, serializability theory, schedulers, locking, timestamping, optimistic, schedulers, multiversion database systems; recovery, commit protocols, termination protocols; replicated database systems, quorum based concurrency control; distributed snapshot taking, distributed deadlock detection, reliable storage systems; concurrency control in object oriented database systems.

CMPT 843-3 Database and Knowledge-Base Systems
An advanced course on database systems which focuses on data mining and data warehousing, including their principles, designs, implementations, and applications. It may cover some additional topics on advanced database system concepts, including deductive and object-oriented database systems, spatial and multimedia databases, and database-oriented Web technology.

CMPT 852-3 VLSI Systems Design
This course links two fields that traditionally have been considered two separate entities: computer architecture and integrated circuit design. The vehicle used to demonstrate the interaction of layout issues and architectural concepts is metal oxide semiconductor technology.

CMPT 853-3 Computer-Aided Design/Design Automation
Algorithms for logic synthesis and physical CAD/DA. Emphasis on routing, placement, partitioning, and gate level logic synthesis.

CMPT 860-3 Special Topics in Computing Science
This course aims to give students experience to emerging important areas of computing science. Prerequisite: instructor discretion.

CMPT 880-3 Special Topics in Theoretical Computer Science
CMPT 881-3 Special Topics in Artificial Intelligence
CMPT 881-3 Special Topics in Database Systems
CMPT 885-3 Special Topics in Computer Architecture
CMPT 886-3 Special Topics in Operating Systems
CMPT 887-3 Special Topics in Hardware Design

CMPT 888-3 Special Topics in Computer Graphics
This course introduces graduate students to specialized topics in computer graphics. In most cases, such topics will build upon those discussed in previous graphics classes, or of prime interest to faculty (such as current research topics).

CMPT 889-3 Special Topics in Interdisciplinary Computing
CMPT 893-1 Advanced Seminar I
Grade given: S (satisfactory) or U (unsatisfactory).

CMPT 894-3 Directed Reading
CMPT 897-6 MSc Project
CMPT 898-6 MSc Thesis
CMPT 899-6 PhD Thesis

Contemporary Arts FPA
Faculty of Arts and Social Sciences

FPA 104-3 Music Fundamentals
This course is designed to provide a basic understanding of the elements of music and teaches the skill of reading music notation. An introduction to music theory and exposure to the application of music materials in a wide spectrum of music literature will be accompanied by practical exercises. The course is designed for students with no formal music training. May be of particular interest to students in other departments.

FPA 111-3 Issues in Fine and Performing Arts
This course introduces students to some basic issues in the fine and performing arts through the presentation and discussion of selected works in dance, film, music, theatre and visual art. It is designed to give students an opportunity to extend further study in one or more of these arts some familiarity with critical issues affecting all of them. It is a recommended preparation for the school's upper division history and critical courses. May be of particular interest to students in other departments.

FPA 120-3 Introduction to Contemporary Dance
Development of movement skills through fundamentals of contemporary dance technique, explorations in improvisation, and short composition studies. An introduction to the literature will focus on selected topics. May be of particular interest to students in other departments.

FPA 122-4 Contemporary Dance I
First of two studio courses in contemporary dance and ballet technique. Introduces theoretical approaches to contemporary dance. (studio) This is one of four courses required for entry into the dance major and minor programs. Prerequisite: prior approval as a result of an audition. Co-requisite: FPA 122 and FPA 129 must be taken concurrently.

FPA 123-4 Contemporary Dance II
Continues and expands on the work undertaken in FPA 122. Emphasizes work in contemporary dance and ballet technique with attention to theoretical approaches to contemporary dance. (studio) Prerequisite: FPA 122. Co-requisite: FPA 123 and FPA 124 must be taken concurrently.

FPA 124-3 Dance Improvisation
Selected dance improvisational skills will be explored in a variety of solo, duet, small group and large group forms through structured movement themes. Emphasis will be on sensory awareness, elements of movement, and literal and abstract imagistic stimuli. (studio) This is one of four courses required for entry into the BFA dance major and extended minor. Recommended: dance or theatre experience.
COURSES

FPA 129-3 Fundamental Integration of Human Movement
This studio/theory course incorporates techniques of body awareness, centering, and structural realignment. The emphasis is on body conditioning and body connectedness. This course will be of interest to dancers, actors, kinesiologists, and athletes. (seminar/studio) This is one of four courses required for entry into the dance major and extended minor program.

FPA 130-4 Fundamentals of Film
Introduces students to the basic components of filmmaking through lectures, film screenings and creative projects in the various media that combine to form cinema. Prerequisite: prior approval through formal application. Students who have taken FPA 132, 133, 134 or 230 may not take FPA 130 for further credit. A laboratory fee is required. Students should be advised that course activities may require additional costs.

FPA 131-4 Filmmaking I
An introductory course in 16 mm, film production, emphasizing creative use of the medium. Each student is expected to conceive, direct and edit a short film with a non-synchronous sound track, as well as participate in the making of class exercises and other student projects. Prerequisite: FPA 130 and prior approval. A laboratory fee is required. Students should be advised that film production will probably incur significant costs in addition to lab fees. Students who completed FPA 230 The Crafts of Film I in spring 1990 or earlier may not take this course for further credit.

FPA 135-3 Introduction to Cinema
An introductory course designed to facilitate a fundamental understanding of film technique, style and form in order to develop the skills with which to analyze films of all genres. Through lectures and screenings, it provides an overview of the social, aesthetic and technical development of motion pictures, introducing tools for the formal analysis of the elements of cinema: cinematography and lighting, art direction, performance, editing, sound and the screenplay. The formal and historical elements of documentary, avant-garde and dramatic films will be addressed. The course will involve the screening and discussion of several complete feature films and shorts, as well as excerpts from others.

FPA 136-3 The History and Aesthetics of Cinema I
This course will examine the early development of cinema from 1890 until about 1945, with particular emphasis on the fundamental principles of film as an art form. A substantial number of films will be shown during laboratory sessions. Students with credit for FPA 236 offered in 1982/83 and prior years may not take this course for further credit. May be of particular interest to students in other departments.

FPA 137-3 The History and Aesthetics of Cinema II
This course will examine selected developments in cinema from 1945 to the present, with attention to various styles of artistic expression in film. A substantial number of films will be shown during laboratory sessions. Students with credit for FPA 237 offered in 1982/83 and prior years may not take FPA 137 for further credit. May be of particular interest to students in other departments.

FPA 140-3 Music in the 20th Century
An introductory survey of major historical trends and practices of music in the 20th century as revealed by the study of selected music examples. Critical issues fundamental to an understanding of contemporary composition will be examined (e.g. impressionism, twelve-tone music, indeterminacy, the role of technology, impersonation). Prerequisite: FPA 104.

FPA 145-3 Intro to Music Composition and Theory
This course introduces basic concepts of music composition such as melody and pitch organization, harmony, rhythm, form and style. The fundamental principles of theory and acoustics (e.g. voice-leading, overtone structure, metre) will be studied with particular reference to composition. Students will compose short works within given guidelines that address specific compositional issues. Prerequisite: FPA 104.

FPA 147-3 Introduction to Electroacoustic Music
An introduction to the application of electroacoustic technology to music, including the concepts of the audio signal, signal processing and sound synthesis in their musical applications. The techniques of tape music, electronic music and computer music composition will be introduced and their role in both studio composition and live performance will be discussed. Practical experience in several of these areas is included in the lab component.

FPA 150-3 Introduction to Acting I
An approach to the elements of acting based on improvisation, with some attention to working from established texts. Focus will be placed on the development of the actor's instrument. The work will include the development of individual powers of expression — vocally, physically, intellectually, imaginatively, and emotionally. May be of particular interest to students in other departments.

FPA 151-3 Introduction to Acting II
Expands the work of Acting I with an increased emphasis on text, leading to scene work. Prerequisite: FPA 150. Students who have completed FPA 152 may not take 151 for further credit. May be of particular interest to students in other departments.

FPA 160-3 Introductory Studio in Visual Art I
A hands-on studio course modeled on the progressive development of artistic practice from simple mark-making to full scale installation. Through a process of continuous transformation, an original idea is developed in a sequence of methods, materials and scales. Some research is required. A course materials fee is required. (studio)

FPA 161-3 Introductory Studio in Visual Art II
A continuation of the work begun in FPA 160, with emphasis on particular problems in the visual arts worked through a series of projects, culminating in the Campus Project, a site-specific public work designed, built and installed at the end of the semester. Some research is required. Prerequisite: FPA 160. A course materials fee is required. May be of particular interest to students in other departments.

FPA 167-3 Visual Art and Culture I
An introduction to the visual arts of the nineteenth century. Formal and thematic approaches to the arts will be introduced, with attention to the social, institutional, national, and international contexts of art. (lecture)

FPA 168-3 Visual Art and Culture II
A study of the visual arts from the twentieth century to the present, with attention to the artists, artworks, movements, and discourses that re-defined the functions and meanings of art. The debates of modernism, postmodernism, postcolonialism, feminism, and the avant-garde will be systematically explored. (lecture)

FPA 170-3 Introduction to Production Technology
An introduction to the processes, tools and technology used in the production and presentation of the fine and performing arts. Course requirements will include hands-on assignments in the production of theatre, dance, music and visual art events. Students will work directly with equipment and materials, and are expected to be involved in work on productions and exhibitions outside of lecture and lab hours. A laboratory fee is required. May be of particular interest to students in other departments.

FPA 171-3 Stage and Production Management
An introduction to the management, and organization, of the performing arts. This course will provide a grounding for students who wish to become further involved in the administration of the performing arts and will include practical experience. Students will be expected to be involved in production work outside of regular seminar hours. May be of particular interest to students in other departments.

FPA 210-3 Artworks, Theories, Contexts
Introduces theoretical concepts and historical issues that have informed the creation, perception, interpretation, and analysis of selected artworks in formative epochs, such as the Renaissance, Romanticism, Modernism, or Postmodernism. (lecture/tutorial) Prerequisite: 24 credit hours including six in the history or theory of the fine or performing arts. Students with credit for FPA 211 Introduction to Contemporary Theory in the Arts cannot take this course for further credit.

FPA 220-4 Contemporary Dance III
The first studio course in a series designed for students pursuing a major or extended minor in dance. Emphasizes work in contemporary dance and is designed to develop technical facility in movement and acquaint the student with form and style in contemporary dance. (studio) Prerequisite: FPA 122, 123, 124, 129 and prior approval by interview.

FPA 221-4 Contemporary Dance IV
The second studio course in a series designed for students pursuing a major or extended minor in dance. Expands on the work undertaken in FPA 220-4 Contemporary Dance III and aims to develop technical facility in movement and acquaint the student with form and style in contemporary dance. (studio) Prerequisite: FPA 220.

FPA 224-3 Dance Composition I
Study in the craft of dance composition emphasizing specific problems in space, time, dynamics, structure and imagery. Students will work individually and in groups on critical analysis and participate in the rehearsal and performance of their colleagues' compositions. Prerequisite: FPA 122, 123, 124 and 129 and interview.

FPA 226-3 Dancing in Cyberspace
This is an on-line course which introduces students to the virtual body in cyberspace and its creative potential. A 3-D human animation software program will be utilized to explore human movement through experientially designed sequences. Aesthetic and socio-technological issues of the human body representation will be addressed. Prerequisite: basic computer skills. May be of particular interest to students in other departments.

FPA 227-3 History of Dance: The 20th Century
Study of the development of modern dance and the reformation of the ballet in the 20th century. Emphasis will be placed on seminal dance artists and the impact their work has had upon the art form in western theatre dance. Students with credit for FPA 328 may not take this course for further credit. Recommended: FPA 127. May be of particular interest to students in other departments.

FPA 229-3 Selected Topics in Dance I
A specific topic in dance which is not otherwise covered in depth in regular courses. The work will be practical (studio), theoretical, or a combination of the two, depending on the particular topic in a given semester. Prerequisite: FPA 220 or prior approval.
FPA 230-5 Filmmaking II
The first of two courses (FPA 231-5 is the second) which form an intensive study of the craft of sync-sound 16 mm filmmaking, with an emphasis on production planning, creative development and the shooting and editing of short films. In-class exercises and film screenings will lead to the production of several original films. Each student will be expected to play major creative and technical roles in these productions. Prerequisite: FPA 131, one of FPA 136 or 137 and prior approval. Students should be advised that film production will probably incur significant costs in addition to lab fees. Students who have taken FPA 330 for credit may not take FPA 230 for further credit. Corequisite: FPA 233. A laboratory fee is required.

FPA 231-5 Filmmaking III
This course continues the work begun in FPA 230-5 Filmmaking II. Students will acquire proficiency in film technique through lab exercises, readings and film screenings. As well, all students will participate in the completion of short original sync-sound 16 mm films which were begun in FPA 230. Emphasis is placed on the development of means for creative expression supported by technical skills. Prerequisite: FPA 230, 233 and approval. Students should be advised that film production will probably incur significant costs in addition to lab fees.

FPA 232-3 Film Sound
Through lectures, demonstrations and studio work, students will be introduced to several aspects of location sound recording and audio post production for film and video. Topics will include synchronization systems and techniques, editing, music scoring, mixing and both analog and digital sound technology. Prerequisite: FPA 131 or 147 and prior approval. Students who have completed FPA 330 may not take FPA 232 for further credit. Recommended: CMNS 258.

FPA 233-2 The Techniques of Film
This course covers the technical aspects of basic 16 mm production skills: camera, lighting, sound, editing, lab processes. These skills are taught as discrete units of instruction, with lab exercises and exams at the end of each unit. Prerequisite: FPA 131 and prior approval. Laboratory fee required. This course is not a duplicate of FPA 233 Video Production. Corequisite: FPA 230.

FPA 236-3 Cinema in Canada
Examines the achievements of both documentary and experimental filmmaking in Canada from the earliest days until the present. Special attention will be paid to the cinemas of Quebec and western Canada, and to the cultural, political and theoretical traditions that have shaped contemporary cinema in Canada. Prerequisite: FPA 136 or 137, or 30 credit hours. May be of particular interest to students in other departments.

FPA 237-3 Selected Topics in Film and Video Studies
This course will cover a specific topic within the field of film and video studies not covered in depth in regularly scheduled courses, such as: a national cinema; film and politics; Quebec cinema; documentary film and video, etc. Weekly sessions. The course may be repeated for credit if a different topic is taught. Prerequisite: FPA 136 or 137.

FPA 238-3 Screenwriting
This course introduces the methodologies of writing for the screen in various styles, including dramatic, documentary and experimental forms, with an emphasis on structure and the creative expression of visual ideas. Students will perform a variety of writing assignments and each will be expected to complete one or more short original scripts. Prerequisite: one of FPA 136, 137 or 253 and prior approval. Students who have taken FPA 332 for credit may not take FPA 238 for further credit.

FPA 240-3 Contemporary Music Performance I
Performance of works from the contemporary music repertoire for instruments and voice. A range of material will be covered from more improvisational pieces to conventionally notated scores. Prerequisite: audition/interview.

FPA 243-3 Gamelan I
Practical and theoretical study of music for gamelan ensemble, based on, but not limited to, traditional Javanese music. This course is designed as an introduction to the study of the music of non-Western cultures and as a method of developing ensemble musicianship. Prerequisite: prior approval. May be of particular interest to students in other departments.

FPA 244-3 Theory of Contemporary Music
The theoretical investigation of the basic materials of the tempered chromatic scale, alternative tuning systems, and contemporary practices of texture and rhythm. Analysis of a wide range of music, score-reading and exposure to recorded music will be part of the course. Prerequisite: FPA 140 and 145.

FPA 245-3 Music Composition I
Composition for small instrumental groups, electroacoustic resources or combinations of instruments and electronics. Students are also encouraged to do work involving collaboration with dance, film, theatre and visual art. In addition to individual composition lessons, students will be required to attend a composition seminar where the practice of composition will be discussed. Seminar topics will include orchestration, world repertoire, and issues of music technology. Prerequisite: FPA 145 and prior approval.

FPA 246-3 Music Composition II
This course is a continuation of FPA 245. Prerequisite: FPA 245.

FPA 247-3 Electroacoustic Music I
The theory and practice of electroacoustic music technology and composition. In addition to expanding upon the issues introduced in FPA 147, the course will examine through lecture and studio work the following topics: analog and digital synthesis, microcomputer use, the multi-track studio, signal processing, communication protocols such as MIDI and sampling techniques. Prerequisite: FPA 147.

FPA 249-3 Selected Topics in Music I
A specific topic which is not otherwise covered in depth in regular courses. The work may be practical (studio), theoretical or a combination of the two, depending on the particular topic in a given semester. Prerequisite: FPA 140 and/or prior approval.

FPA 250-3 Acting I
Beginning the concentrated work of training the actor in both the freedom and the control of voice and body. This is accomplished through: work on the self as a source of personal imagery and as a potential wellspring of characters, work with other actors in ensemble relationships, work on text as a blueprint for expression, scene study as a vehicle for the realization of the specific dramatic content and overall shape of a play. Prerequisite: prior to registration in this course, the student must pass a successful audition. Corequisite: FPA 254.

FPA 251-3 Acting II
Continues and expands upon the work undertaken in Acting I. Prerequisite: FPA 250 and 254. Corequisite: FPA 255.

FPA 252-3 Playmaking I
Introduces ensemble playmaking such as self scripting, mask exploration, clowning and political theatre. The objective is to enable students to make their own theatre. Prerequisite: admission to FPA 250 or prior approval. Laboratory fee required.

FPA 253-3 Playmaking II
Expands the work undertaken in Playmaking I emphasizing writing skills and story structure. Prerequisite: FPA 150, 151 and prior approval.

FPA 254-2 Theatre Laboratory I
This is the first of four courses in performance research, each of which is ‘attached’ to one of the four courses: FPA 250, 251, 350 and 351. The work comprises voice and speech training. Prerequisite: prior approval. Corequisite: FPA 250 and 129.

FPA 255-3 Theatre Laboratory II
This is the second of four courses in performance research. The work comprises voice and speech training. Prerequisite: FPA 250 and 254. Corequisite: FPA 251.

FPA 257-3 Context of Theatre I
A conceptual approach to a selected body of dramatic works focussing on the detailed structural analysis of dramatic texts, their historical context, their development and production histories. Particular emphasis will be placed upon the evolving relationship between theatre and its audience. May be of particular interest to students in other departments.

FPA 260-3 Studio in Visual Art I
This course permits students to work extensively in a mature critical studio environment on a combination of freely chosen and assigned projects in various contemporary media. Reading will be required. Prerequisite: FPA 111, 161, 168 and prior approval. A course materials fee is required.

FPA 261-3 Studio in Visual Art II
Continues work done in FPA 260-3. Work will combine freely chosen and assigned projects in a variety of contemporary media. Readings will be required as an integral part of studio work. Prerequisite: FPA 260 and status as an approved visual art major. A course materials fee is required.

FPA 262-3 Methods and Concepts: Drawing-based Practices
A studio course introducing drawing practices as they relate to practical, conceptual, aesthetic and historical issues in contemporary art. Prerequisite: FPA 161 and status as an approved major or extended minor in visual art. A course materials fee is required. Students will receive credit for either FPA 262 or 362, but not both.

FPA 263-3 Methods and Concepts: Painting-based Practices
A studio course introducing painting practices as they relate to practical, conceptual, aesthetic and historical issues in contemporary art. Prerequisite: FPA 161 and status as an approved major or extended minor in visual art. A course materials fee is required. Students will receive credit for either FPA 263 or 363, but not both.

FPA 265-3 Methods and Concepts: Photo-based Practices
A studio course introducing photographic practices as they relate to practical, conceptual, aesthetic and historical issues in contemporary art. Prerequisite: FPA 161 and status as an approved major or extended minor in visual art. A course materials fee is required. Students will receive credit for either FPA 265 or 365, but not both.

FPA 268-3 Methods and Concepts: Spatial Presentation
A studio course introducing spatial presentation practices as they relate to practical, conceptual, aesthetic and historical issues in contemporary art. Prerequisite: FPA 161 or 170. A course materials fee is required. Students can only receive credit for one of FPA 163, 268 or 368.
FPA 269-3 Methods and Concepts: Selected Topics
A studio course introducing topics in art-making practices as they relate to practical, conceptual, aesthetic, and theoretical issues in contemporary art. This course may be taken more than once for credit under a different topic. (Studio) Prerequisite: FPA 161 and status as an approved major or extended minor in visual art. A course materials fee is required.

FPA 270-3 Technical Theatre
For students who have had a basic familiarity with technical theatre. The course will offer continued training in staging, audio and lighting for theatre, dance and music presentations. Prerequisite: FPA 170. May be of particular interest to students in other departments.

FPA 271-3 Stage Management Practice
Provides in-depth training for stage management in the performing arts. Intended for students who have some familiarity with theatrical production and will be of value to any student interested in the management of public presentations. Continues the exploration of stage management techniques begun in FPA 171 and uses both academic and professional productions as subjects for investigation. Prerequisite: FPA 171.

FPA 289-3 Selected Topics in the Fine and Performing Arts
A specific topic in fine or performing arts which is not otherwise covered in depth in regular courses and which is not appropriately placed within a single arts discipline. The work will be practical (studio), theoretical, or a combination of the two, depending on the particular topic in a given semester. Prerequisite: will vary according to the topic. May be of particular interest to students in other departments.

FPA 290-3 Video Production I
This course will give students a grounding in technical aspects of video production. The course will be organized around a series of labs and demonstrations that will give students an opportunity to gain hands-on experience in video production and post production. It is expected that individuals will complete this course with sufficient technical training to be able to apply this information successfully to their own artistic pursuits. Prerequisite: six hours credit in FPA and prior approval. Students who have taken FPA 233 Video Production for credit may not take FPA 290 for further credit. Laboratory fee required.

FPA 310-4 The Interdisciplinary Methods
An examination of interdisciplinary methods that have been used to research the fine and performing arts. The course is an in-depth study of approaches to interdisciplinary research, including conceptual concerns, theoretical directions, contextual issues, and analytical processes. Prerequisite: FPA 210 and two of FPA 167, 168, 136, 137. Students who have taken FPA 310-5 prior to 1999-2 may take this course for further credit.

FPA 311-4 Interdisciplinary Studies in the Arts
An historical, theoretical or thematic topic in the fine and performing arts presenting an in-depth investigation of interdisciplinary approaches to the study of art and culture. Prerequisite: 45 credit hours including six credits in history or theory courses within the School for the Contemporary Arts. The course may be repeated when different topics are offered. Recommended: FPA 210.

FPA 312-3 Intermediate Seminar in Art and Culture
Investigates a selected thematic topic in art and culture studies, for example, postcolonial theory and the arts; perception and embodiment; art activism and social issues in contemporary art; Prerequisite: will vary according to the topic. Students who have taken FPA 312-5 prior to 1999-2 may take this course for further credit.

FPA 313-5 Arts, Audience, Patronage, Institutions
An investigation of the fine and performing arts, their audiences, patronage and institutions in a specific historical context. Students will gain an in-depth understanding of a selection of art works and their relationship to their specific cultural context. Prerequisite: 45 credit hours which must include 6 credits in the history or theory of the fine or performing arts. The course may be repeated when different topics are offered. Students who have completed FPA 313 prior to 1998 may take this course for further credit only if the topic differs from the former course. Recommended: FPA 210.

FPA 314-3 Readings in the History of Art and Culture
Investigates a selected historical topic in art and culture. Prerequisite: will vary according to the topic. Students who have taken FPA 314-5 prior to 1999-2 may take this course for further credit.

FPA 320-4 Contemporary Dance V
The first of four upper division courses which build upon the movement vocabulary of contemporary dance. Prerequisite: FPA 221.

FPA 321-4 Contemporary Dance VI
Continues and expands upon the work undertaken in FPA 320. Prerequisite: FPA 320.

FPA 322-3 Ballet I
Explores the vocabulary and movement range of classical ballet technique at the intermediate level. Further attention will be given to the understanding of body placement, balance, flexibility and strength. Practical studio experience is offered within the context of specific theoretical principles. (Studio) Prerequisite: acceptance into the dance major or extended minor program, or prior approval.

FPA 323-3 Ballet II
Continuation of FPA 322, with an emphasis on expanding the vocabulary and movement range of classical ballet technique at the intermediate level. Further attention will be given to the understanding of body placement, balance, flexibility and strength. Practical studio experience is offered within the context of specific theoretical principles. (Studio) Prerequisite: FPA 322, or prior approval.

FPA 324-3 New Dance Composition
Students will be introduced to traditional choreographic structures and explore new directions in composition. Emphasis will be on the creation and analysis of work generated by extending the parameters of source, style and form in contemporary dance. Prerequisite: FPA 224, plus one of 224, 230, 240, 245, 252, 253 or 260.

FPA 325-3 Special Project in Dance Composition
A specific topic or set of ideas will form the basis for the choreographic exploration. Students will create one or more works and participate in research and critical analysis, depending on the particular topic in a given semester. Prerequisite: 40 credits in FPA courses.

FPA 326-4 Repertory I
One of two courses which provide advanced level dance students the opportunity to work as an ensemble rehearsing and preparing for a series of public performances. Chorea and/or selected by a faculty director. (Studio) Prerequisite: acceptance into the dance major or extended minor, and prior approval. Corequisite: students must be concurrently enrolled in a technique course at an appropriate level.

FPA 327-4 Repertory II
One of two courses which provide advanced level dance students with the opportunity to work as an ensemble rehearsing and preparing for a series of public performances. Chorea will be created and/or selected by a faculty director. (Studio) Prerequisite: acceptance into the dance major or extended minor and prior approval. Corequisite: students must be concurrently enrolled in a technique course at an appropriate level.

FPA 329-5 Selected Topics in Dance II
A specific topic in dance which is not otherwise covered in depth in regular courses. The work will be practical (studio), theoretical or a combination of the two, depending on the particular topic in a given semester. Prerequisite: FPA 221 or prior approval.

FPA 331-4 Cinematography and Lighting
This course emphasizes advanced 16 mm. production skills in cinematography and lighting. Students are expected to participate in intensive camera exercises, as well as to play significant crew roles on fourth year films. Prerequisite: FPA 231 and prior approval. Students who have taken FPA 331 The Crafts of Film III may not take this course for further credit. Laboratory fee required.

FPA 335-4 Introduction to Film Theory
This course is concerned with the systematic understanding of the general phenomenon called Cinema rather than with the properties or techniques of individual films. Various theoretical positions will be assessed and compared in terms of cinematic practice and its ideological functions. Prerequisite: six credits from among FPA 136, 137, 211, 236, 237. Students who have taken FPA 234 for credit may not take FPA 335 for further credit. Recommended: FPA 211. May be of particular interest to students in other departments.

FPA 337-3 Intermediate Selected Topics in Film and Video Studies
An intermediate course in critical studies, addressing a variety of topics under this number; for instance, specific genre or area studies (comedy, film noir, science fiction, etc.); national cinemas; film analysis; Third World film, video art, experimental film, etc. The course may be taken again for credit if the topic changes. (Lecture/Seminar) Prerequisite: will vary according to the topic. Students who have taken FPA 339 Selected Topics in Film for credit may not take the same topic under FPA 337 for further credit.

FPA 338-3 Screenwriting II
This course will present advanced theory and techniques for writing dramatic, experimental and documentary film and video scripts. Additional topics covered include script analysis, production breakdown, and the writing of treatments and proposals. Prerequisite: one of FPA 238 or 353 or 457 and prior approval. Recommended: strongly recommended for all students developing projects for production in FPA 430.

FPA 339-3 Directing and Acting for Film and Video
This course acquaints intermediate level students in film, video and theatre with techniques of dramatic performance. Students will be expected to perform as both actors and directors on stage in experimental class. Topics covered include auditioning, script analysis, role preparation, rehearsal, blocking for the camera, and directing techniques. Prerequisite: FPA 131 or 151 and prior approval. Students who have completed Directing and Acting for Film as FPA 379 in spring 1990 or earlier, may not take this course for further credit. This course is not a duplicate of FPA...
in a series of public presentations. Prerequisite: second year standing in a studio discipline and prior approval.

FPA 354-2 Theatre Laboratory III This is the third of four courses in performance research comprising voice and speech training. Prerequisite: FPA 251, 255. Corequisite: FPA 350.

FPA 355-2 Theatre Laboratory IV This is the fourth of four courses in performance research, comprising voice and speech training. Prerequisite: FPA 350, 354. Co-requisite: FPA 351.

FPA 357-3 Context of Theatre II A conceptual approach to a selected body of dramatic work. The detailed structural analysis of dramatic texts, their historical context, their development and production histories. Particular emphasis will be placed upon the evolving relationship between theatre and its audience. Prerequisite: 24 lower division credit hours or prior approval. May be of particular interest to students in other departments.

FPA 359-3 Selected Topics in Theatre II A specific topic in theatre which is not otherwise covered in depth in regular courses. The work may be practical (studio), theoretical or a combination of the two, depending on the particular topic in a given semester. Prerequisite: FPA 250 and/or prior approval.

FPA 360-3 Studio in Visual Art III An open critical studio course. Students are required to have a program of work prepared at the beginning of the semester. This program will constitute the basis of the student's work in the course, and will be the subject of continuing critical discussion. This discussion will be integrated with theoretical studies in the parallel seminar course, FPA 366. Those students who have satisfactorily completed the lower division requirements for the major may apply for entry into the third year studio/seminar stream. Admission is by portfolio assessment and course achievement review in the spring semester before third year. Prerequisite: FPA 167, 168, 210, and prior approval. Corequisite: FPA 366.

FPA 361-3 Studio in Visual Art IV An open critical studio course. It will continue and extend work done in FPA 360. Students are required to have a program of work prepared at the beginning of the semester. This program will form the basis of the student's work in the course, and will be the subject of continuing critical discussion. This discussion will be integrated with theoretical studies in the parallel seminar course, FPA 367. Prerequisite: FPA 360 and 366. Corequisite: FPA 367. A course materials fee is required.

FPA 362-3 Methods and Concepts: Drawing-based Practices Presents drawing practices as they relate to practical, conceptual, aesthetic and historical issues in contemporary art. Additional assignments will be required for students taking the course at this level. (studio) Prerequisite: FPA 161 and status as an approved major or extended minor in visual art. A course materials fee is required. Students will receive credit for either FPA 262 or 362, but not both.

FPA 363-3 Methods and Concepts: Painting Practices Presents painting practices as they relate to practical, conceptual, aesthetic and historical issues in contemporary art. Additional assignments will be required for students taking the course at this level. (studio) Prerequisite: FPA 161 and status as an approved major or extended minor in visual art. A course materials fee is required. Students will receive credit for either FPA 263 or 363, but not both.

FPA 364-3 Methods and Concepts: Sculptural Practices Presents sculptural practices as they relate to practical, conceptual, aesthetic and historical issues in contemporary art. Additional assignments will be required for students taking the course at this level. (studio) Prerequisite: FPA 161 and status as an approved major or extended minor in visual art. A course materials fee is required. Students will receive credit for one of FPA 264, 179, or 364.

FPA 365-3 Methods and Concepts: Photo-based Practices Presents photo-based practices as they relate to practical, conceptual, aesthetic and historical issues in contemporary art. Additional assignments will be required for students taking the course at this level. (studio) Prerequisite: FPA 161 and status as an approved major or extended minor in visual art. A course materials fee is required. Students will receive credit for either FPA 265 or 365, but not both.

FPA 366-3 Seminar in Visual Art I A seminar course to be taken by all students in FPA 360. It deals with visual arts topics of an historical, critical and theoretical nature which concern practising artists in the contemporary context. Students will be required to present research papers. Each research subject will be studied in connection with the student's own artistic work. Senior students in other disciplines with appropriate background may request approval to take this course. Those students who have satisfactorily completed the lower division requirements for the major may apply for entry into the third year studio/seminar stream. Admission is by portfolio assessment and course achievement review in the spring semester before third year. Prerequisite: FPA 167, 168, 210, and prior approval. Corequisite: FPA 366.

FPA 367-3 Seminar in Visual Art II A seminar course to be taken by all students in FPA 361. It deals with visual arts topics of an historical, critical and theoretical nature which concern practising artists in the contemporary context. Students will be required to present research papers. Each research subject will be studied in connection with the student's own artistic work. Senior students in other disciplines with appropriate background may request approval to take this course. Prerequisite: FPA 366. Visual art major students transferring into the third year may request approval to take FPA 211 concurrently. Corequisite: FPA 361.

FPA 369-3 Methods and Concepts: Selected Topics A studio course presenting topics in art-making practices as they relate to practical, conceptual, aesthetic and historical issues in contemporary art. This course may be taken more than once for credit under a different topic. (studio) Prerequisite: FPA 161 and status as an approved major or extended minor in visual art. A course materials fee is required.

FPA 372-3 Technical Production I Students with basic production and design experience will undertake intermediate level responsibilities. As crew chiefs, stage management personnel and designers, students will be required to research problems, select a design and organization of production and to apply their solutions within the production process. Prerequisite: FPA 270 or 271 and prior approval.

FPA 373-3 Technical Production II A continuation of FPA 372-3. Students with some intermediate level technical theatre experience will undertake further production responsibilities. Prerequisite: FPA 372 and prior approval.

FPA 374-3 Stage Lighting This course explores contemporary stage lighting for theatre, dance and opera. Participants will review the
principles of theatrical lighting instruments and control systems and will experiment with the components of lighting design in a variety of studio projects. This course will require a practicum in an actual performance. Prerequisite: FPA 270 and prior approval. Students with credit for FPA 371 may not take FPA 374 for further credit. Laboratory fee required.

FPA 375-3 Stage Design
For students with an intermediate level of knowledge of technical installation, this course will study various scenicographic techniques and be required to solve theoretical problems related to aspects of production. Prerequisite: FPA 270. Students with credit for FPA 370 may not take FPA 375 for further credit. Laboratory fee required.

FPA 383-3 Selected Topics in the Fine and Performing Arts II
A specific topic in fine and performing arts which is not otherwise covered in depth in regular courses and which is not appropriately placed within a single arts discipline. The work will be practical (studio), theoretical, or a combination of the two, depending on the particular topic in a given semester. Prerequisite: will vary with the topic. May be of particular interest to students in other departments.

FPA 390-3 Video Production II
This course is intended for students interested in video as a means of artistic expression. Students will be encouraged to challenge accepted notions of the video medium and explore the creative possibilities of multi channel presentations. The course comprises a series of technical workshops, screenings and group seminars whose purpose is to develop an awareness of the creative and conceptual possibilities of the medium of video. Students will be expected to initiate and complete a short video project based on an idea of their own choosing. Projects which involve school-wide interdisciplinary collaborations will be encouraged. Prerequisite: prior approval through written proposal for a ten minute video project or installation; an interview; plus FPA 290 or equivalent video experience. A laboratory fee is required. Students should be advised that video production may require personal funding beyond the lab fee.

FPA 393-2 Techniques of Video
This is an intermediate course that teaches the fundamentals of digital video production and post-production. Students will be introduced to DV camera technology and non-linear editing, and will have an opportunity to become familiar with and explore the potential of digital video technology. This course is intended for third year film students preparing for their fourth year productions. Prerequisite: FPA 290 or equivalent video experience. A laboratory fee required.

FPA 400-3 Directed Studies (Studio)
An opportunity for advanced students to carry out an independent project which is planned and completed in close consultation with the supervisory instructor. Before registration, the student must submit a written proposal outlining the project in detail to the chosen supervisor for approval. Directed studies courses may not be used as a substitute for existing courses. Prerequisite: 60 credit hours plus a minimum standing of completion of second year in any of the programs offered in the School for the Contemporary Arts and prior approval.

FPA 402-4 Directed Studies (Studio)
Provides an opportunity for advanced students to carry out an independent project which is planned and completed in close consultation with the supervisory instructor. Before registration, the student must submit a written proposal outlining the project in detail to the chosen supervisor for approval. Directed Studies courses may not be used as a substitute for existing courses. Prerequisite: 60 credit hours plus a minimum standing of completion of second year in any of the programs offered in the School for the Contemporary Arts and prior approval.

FPA 403-4 Directed Studies (Theory/History)
This course is intended to provide opportunity for advanced students to carry out an independent project which is planned and completed in close consultation with the supervisory instructor. Before registration, the student must submit a written proposal outlining the project in detail to the chosen supervisor for approval. Directed Studies courses may not be used as a substitute for existing courses. Prerequisite: 60 credit hours plus completion of second year in any of the programs offered in the School for the Contemporary Arts and prior approval.

FPA 404-5 Directed Studies (Studio)
Provides an opportunity for advanced students to carry out an independent project which is planned and completed in close consultation with the supervisory instructor. Before registration, the student must submit a written proposal outlining the project in detail to the chosen supervisor for approval. Directed Studies courses may not be used as a substitute for existing courses. Prerequisite: 60 credit hours plus a minimum standing of completion of second year in any of the programs offered in the School for the Contemporary Arts and prior approval.

FPA 411-3 Interdisciplinary Studies in the Contemporary Arts
An interdisciplinary investigation of key issues in the contemporary arts. Prerequisite: At least 55 credit hours, which must include FPA 210 and one of FPA 310 or 311.

FPA 412-4 Advanced Seminar in Art and Culture Studies
Provides an in-depth investigation of a selected theoretical, historical or thematic topic in art and culture studies. This course requires independent research leading to a substantial paper, as well as directed reading preparation for seminars. Topics will vary from semester to semester. The course may be repeated when different topics are offered. Prerequisite: eight upper division credit hours including one of FPA 311 or 313. May be of particular interest to students in other departments.

FPA 414-3 Advanced Topic in the History of Art and Culture
An in-depth investigation of a selected topic in the history of art and culture. Prerequisite: will vary according to the topic.

FPA 416-3 Practices in Art and Culture
Investigates specific practices in art and culture, and combines work on a project with theoretical and historical research. The course will focus on the history, theory, and practices of, for example, curating, writing, or making audio-visual artworks. Prerequisite: will vary according to the topic.

FPA 420-4 Contemporary Dance VII
The third of four upper division courses which build upon the movement vocabulary of contemporary dance. Prerequisite: FPA 321.

FPA 421-4 Contemporary Dance VIII
Continues and expands the work undertaken in FPA 420. Prerequisite: FPA 420.

FPA 425-4 Intensive Studies in Performance
Advanced performance studies in intensive specialized workshops and/or participation in choreographic projects culminating in public performance. Course content may include interdisciplinary collaborations and a variety of performance styles and techniques. Prerequisite: FPA 330, 343 or 327 with prior approval by application. Students must be concurrently enrolled in a dance technique course at the appropriate level.

FPA 426-3 Dance/Movement Analysis
An introduction into the theory and practice of movement analysis based on recognized theories of analysis. Experiential work may be included in the course and a dance or similar movement background is necessary. (studio/seminar) Prerequisite: FPA 124 or 151 or prior approval.

FPA 427-3 Ballet III
An extension of classical ballet technique on an upper intermediate level. Understanding of basic principles is assumed and attention will be paid to combinations of movement, musicality and performance. (studio) Prerequisite: FPA 323, or prior approval.

FPA 428-3 Ballet IV
An advanced course. Students must have a thorough background in the vocabulary and technique of classical ballet. Attention will be given to movement sequences from the ballet repertoire. (studio) Prerequisite: FPA 427, or prior approval.

FPA 430-5 Filmmaking IV
The first half of a two-semester project in advanced film and/or video production. Students are expected to participate in the realization of one or more projects during the two semesters. Students seeking entry into this course are required to present a completed script (for a drama) or detailed proposal (for a documentary or experimental film) prior to registration. The exact nature of each student’s participation will be determined in consultation with the instructor. Prerequisite: FPA 231 and 10 credit hours in film or video studies plus prior approval. This course is open only to approved film majors. Students should be advised that film production will probably incur significant financial costs in addition to required lab fees.

FPA 432-5 Filmmaking V
This course is intended for completion of film and video projects begun in FPA 430. Particular emphasis will be given to advanced film craft in the post-production phase. The exact nature of each student’s participation will be determined in consultation with the instructor. Prerequisite: FPA 430. A laboratory fee is required. Students should be advised that film production will probably incur significant costs in addition to lab fees.

FPA 436-3 Advanced Seminar in Film and Video Studies
This course features intensive study and analysis of selected topics in film theory, history, criticism and aesthetics. Examples include: work of specific directors or periods; theories of narrativity; ideological analysis; particular aspects of national cinemas, etc. is taught. Prerequisite: FPA 335 or permission of instructor.

FPA 443-3 Gamelan III
Continuation of FPA 343 with emphasis on the technique of the elaborating instruments of the gamelan ensemble. Prerequisite: FPA 343.

FPA 445-3 Music Composition V
This course is a continuation of FPA 346. Prerequisite: FPA 346.
FPA 446-3 Music Composition VI
This course is a continuation of FPA 445. Prerequisite: FPA 445.

FPA 447-3 Computer Music Composition
The theory and practice of digital techniques and computer systems as applied to sound synthesis and music composition. The course will consider the major types of hardware and software systems developed for music from 1955 to the present, and will discuss such issues as machine programmability, user interaction, acoustic models for sound synthesis, and compositional algorithms. Students will have the opportunity for practical compositional work. Prerequisite: FPA 347. Recommended: CMPT 001 or 110.

FPA 450-3 Advanced Studio Skills
Primarily a course in public performance, with the option of focusing on other advanced studio skills. The objective is to integrate and implement the techniques acquired in the earlier studios. Prerequisite: prior approval or audition.

FPA 453-Theory and Practice of Directing
Primarily a course in the fundamentals of directing leading to public performance of student directed projects. The course allows the option of public performance with a professional director. The focus is to integrate and implement the techniques acquired in the earlier studios. Prerequisite: FPA 150, 151, and prior approval.

FPA 457-Context of Theatre III
An analytical approach to a selected body of dramatic work. Course content includes an intensive consideration of practical dramatic techniques such as story structure and dramaturgy. Prerequisite: 45 credit hours and prior approval.

FPA 460-3 Studio in Visual Art V
This course permits students to work in an open studio situation. Students propose an independent program of work in the media of their choice at the beginning of the semester and develop it in critical dialogue with the instructor(s). Prerequisite: FPA 361, 367 and status as an approved major in visual art. A course materials fee is required.

FPA 461-5 Studio in Visual Art VI
Permits students completing the visual art major to work in an open and critical studio situation. Students continue to develop the body of work begun in FPA 460 for their graduating exhibition at the end of the semester. Preparation and installation of the exhibition is part of the course requirement. Prerequisite: FPA 460 and status as an approved major in visual art. A course materials fee is required.

FPA 472-3 Technical Production III
Senior students with extensive experience in production and design will be assigned major production responsibilities. As senior designers and production management personnel, students will be required to apply their skills in a major production role. Prerequisite: FPA 373 and prior approval.

FPA 473-5 Technical Production IV
Students with extensive experience in production and design will be assigned major production responsibilities. As senior designers and production management personnel, students will be required to apply their skills in a major production role. Prerequisite: FPA 373 and prior approval.

FPA 489-5 Interdisciplinary Project in FPA
This course permits students to explore the relationships among the arts by undertaking creative projects involving more than one art form. Students will work under the close supervision of one or more faculty and will be required to discuss their work on a regular basis with others involved in the course. Prerequisite: will vary according to the topic.

FPA 811-5 Interdisciplinary Graduate Seminar I
Critical study of contemporary issues in the fine and performing arts, with emphasis on concerns common to diverse artistic disciplines and the interaction between art and society.

FPA 812-5 Interdisciplinary Graduate Seminar II
Continuation of FPA 811. Prerequisite: FPA 811.

FPA 813-5 Interdisciplinary Graduate Studio
A selected topics studio course with an emphasis on interdisciplinary artistic projects. Prerequisite: FPA 811 or 812.

FPA 877-5 Selected Topics in Fine and Performing Arts
Study of particular artistic techniques or issues. The topic varies from semester to semester.

FPA 883-5 Studio in Fine and Performing Arts I
Intensive studio work, concentrated in a particular art discipline, but with opportunity to involve interdisciplinary materials and techniques.

FPA 885-5 Studio in Fine and Performing Arts II
Continuation of FPA 883. Prerequisite: FPA 883.

FPA 887-5 Selected Topics in Fine and Performing Arts
Study of particular artistic techniques or issues. The topic varies from semester to semester.

FPA 889-5 Directed Study in Fine and Performing Arts
FPA 890-10 Master of Fine Arts Graduating Project

Criminology CRIM Faculty of Arts and Social Sciences
CRIM 101-3 Introduction to Criminology
Topics will include: examination of different terms and concepts commonly used in criminology, such as crime, delinquency, deviance, criminal, victim, rehabilitation and treatment. Criminology as a body of knowledge and as a profession. Position and subject matter of criminology. Relationship between criminology and other academic disciplines. Specificity of criminology. Relationship between theory and practice. Evolution of criminal thought. Elements of continuity and discontinuity between classical and modern theories of criminality. Levels of explanations in criminology. Practical applications of criminology. The foundations of a modern criminal policy. Prerequisite: students who have completed any or all of CRIM 101, 103 and 104 may not register for CRIM 100 or 102.

CRIM 103-3 Psychological Explanations of Criminal and Deviant Behavior
An introduction to, and critical examination of, biogenetic, psychodynamic, and psychological explanations of criminal and deviant behavior. Special attention will be given to the hypothesized links between criminality and genetics, physiology, the endocrine system, mental disorders, personality, moral development, and other forms of social learning. Students who have completed any or all of CRIM 101, 103 and 104 may not register for CRIM 100 or 102. Recommended: PSYC 100 and 102.

CRIM 104-3 Sociological Explanations of Criminal Behavior
A survey of some major sociological perspectives on crime and deviance that will include both mainstream and critical theories. These will include: anomie, neutralization, control, group conflict, sub-cultural, ecological, functionalist and critical theories. Critical analysis of the assumptions upon which each theory is based. Examination of the similarities and differences between/among the various explanations. Students who have completed any or all of CRIM 101, 103 and 104 may not register for CRIM 100 or 102. Recommended: SA 150.

CRIM 131-3 Intro to the Criminal Justice System
Introductory analysis of the structure and operation of the Canadian criminal justice system. Examination of the patterns of crime and victimization; police operations, discretion and decision making; the criminal courts, including sentencing; the corrections system, including correctional institutions and community-based models; the youth justice system. Patterns of contact and conflict between various social groups and the criminal justice system.

CRIM 135-3 Introduction to Canadian Law and Legal Institutions
A general introduction to the fundamental and competing principles of jurisprudence and to the basic legal institutions of Canada. Prepares students for those law and law related courses offered within the School of Criminality and will consider the history of Canadian law, the development of the Canadian constitution, the system of Canadian courts and the roles and responsibilities of members of the legal profession. In addition, the course will consider the nature of legal reasoning, the doctrine of precedent, principles of statutory interpretation and will also introduce the fields of contract, torts, administrative law, and family law. Also examines the process of law reform in Canada.

CRIM 161-0 Practicum I
First semester of work experience in the Criminology Co-operative Education Program. Prerequisite: 30 semester hours (at least fifteen completed at Simon Fraser University) including CRIM 101, 220, 131, 135 and one of PSYC 210, STAT 101 or 203, with a cumulative grade point average of not less than 2.75. Students should apply to the Faculty of Arts co-op co-ordinator one semester in advance.

CRIM 203-3 Historical Reactions to Crime and Deviance
Historical review of society’s reaction to crime and deviance, relating this history to religious, political, social and philosophical movements and schools of thought. Consideration of the history and evolution of punishment and penal methods and the historical forces influencing the development, implementation, and modification of these methods. Prerequisite: any 100 level CRIM course.

CRIM 210-3 Law, Youth and Young Offenders
An analysis of the definition and control of youthful misconduct in an historical and contemporary context. Attention is focused upon: the social construction of juvenile delinquency; the decline of the concept, and the emergence of the concept of the ‘young offender’; the Young Offenders Act and related legislation; the growth of the welfare state and the role of social workers in ‘policing’ youth and families; ecological, developmental, genetic, and biogenetic theories for the criminality of young persons; state and private sector programs designed to deal with such behavior. Prerequisite: any 100 level CRIM course.

CRIM 213-3 Women and Criminal Justice
This course offers an historical and analytical overview of women and crime, taking into account the role of gender in both criminality and social responses to crime. Specific emphasis will be given to feminist theories. Attention will focus on the specific crimes and patterns of control and punishment. Prerequisite: any 100 level CRIM course.

CRIM 220-3 Research Methods in Criminology
An introduction to criminological research that is intended to develop the student’s research and analytical skills. Specifically, the course will focus on...
the theory of inquiry, the logic, and structure of criminological inquiry, research design, data gathering, analysis and reporting. Students with credit for CRIM 120 may not take CRIM 220 for further credit. Recommended: any 100 level CRIM course.

CRIM 230-3 Criminal Law
Nature, purpose, scope, sources and basic principles of the criminal law. Study of certain fundamental legal concepts such as mens rea, negligence and strict liability. Concept of criminal responsibility in Canada. Critical examination of the legislative policies expressed in the Criminal Code. Study of the basic elements of a criminal offence. Examination of the legal principles relating to certain specific crimes and to certain major defences. Impact of Canadian Charter of Rights and Freedoms on the criminal law. Prerequisite: CRIM 135.

CRIM 231-3 Introduction to the Judicial Process
A critical examination and evaluation of the judicial process. An introduction to the criminal courts and the legal profession. The structure and functions of the criminal court system and its relationship to other branches of government. The role of the criminal court judge, prosecutor, lawyer, jury, witness, expert, etc. Appraisal of the courts as a source of social control; the social psychology of the courts; the jury system; plea bargaining; judicial behavior of the courts; the courts and the community; public opinion, attitudes and images of the courts; the mass media and the courts. Prerequisite: CRIM 131. Recommended: CRIM 135.

CRIM 241-3 Introduction to Corrections
An examination of the organization, structure and operation of contemporary Canadian corrections. A consideration of the history and development of provincial and federal correctional systems. The role of sentencing in the correctional process and alternative means to crime prevention. Consideration of the social organization of correctional institutions, including the inmates, correctional officers, correctional treatment staff and administrators. Parole board decision making and the issues surrounding the re-entry of offenders into the community. Community-based corrections programs and outcomes. Prerequisite: CRIM 131.

CRIM 251-3 Introduction to Policing
An examination of the organization and operation of contemporary policing. Consideration of the history and development of policing in Canada, the role of the police in Canadian society and the police occupation, including recruitment and training. Discussion of police decision making and the exercise of discretion. The concept of accountability. Managing the police organization. Examination of police-community relations and crime prevention initiatives. Prerequisite: CRIM 131. Students with credit for CRIM 151 may not take CRIM 251 for further credit.

CRIM 251-0 Practicum II
Second semester of work experience in the Criminology Co-operative Education Program. Prerequisite: successful completion of CRIM 161 and 45 credit hours with a minimum CGPA of 2.75.

CRIM 300-3 Current Theories and Perspectives in Criminology
A detailed examination of current theories and perspectives in criminology. The content of the course will change with developments in the area. Students can expect to study biological, psychological and sociological theories and perspectives, as well as those from other relevant disciplines and fields of inquiry (e.g., geography, political science and cultural studies). Prerequisite: one of CRIM 100, 101 or 102.

CRIM 301-3 Crime in Contemporary Society
Contemporary issues, problems and themes pertinent to the field of criminology. Development, character and function of crime as an academic and professional discipline. Status of criminology in the Canadian context. Selected issues of the study of crime, law and justice which will vary depending on instructor. This course may not be taken by students who are majoring or minoring in Criminology.

CRIM 302-3 Critical Approaches to Crime and Deviance
Critique of traditional criminological theory and of the conventional approaches to the problems of crime and punishment. Critique of classical and etiological criminology. Examination of the relationships between crime, class and power. The criminal as a scapegoat for the system. The stereotype of the criminal. Street crime vs. corporation and state crime. Criticism of treatment ideology and techniques. Comparison of conservative and radical criminal policy. The concept of the danger of a value-free social science and the political commitment of the social scientist. Prerequisite: one of CRIM 100, 101 or 102.

CRIM 310-3 Young Offenders and Criminal Justice: Advanced Topics
This course is designed for a one-semester basis, some of the more complex contemporary issues relating to young offenders and justice. For any given semester, the content of the course will reflect current controversies as well as faculty and student interests. Topics may include social control theory and juvenile justice; an assessment of theories of rehabilitation; the legal philosophy of the young offenders legislation and its Impact on Juvenile justice; and an evaluation of diversion, deinstitutionalization and de-legalization in Canada and the United States. Prerequisite: one of CRIM 100, 101 or 102; 210.

CRIM 311-3 Minorities and the Criminal Justice System
An analysis of political, economic, and ethnic minorities and their relationship with the criminal justice system. Critical analysis of possible disadvantage, disharmony or conflict between ethnic and racial minorities such as Native Indians, Inuit, Metis, Doukhobor and others and the legal and social norms of the 'host' majority. Women and the criminal justice system. Prerequisite: one of CRIM 100, 101 or 102.

CRIM 312-3 Criminological Perspectives on Social Problems
Involves detailed study of forms of deviance that have been commonly defined as constituting 'social problems.' Consideration of drug abuse (alcohol, nicotine, heroin and others), suicide, prostitution, obscenity, gambling and abortion. Justifications for present legislative policy and the relationship between these activities and the criminal justice system. Prerequisite: one of CRIM 100, 101 or 102.

CRIM 313-3 Specific Types of Crimes
Critical analysis of a specific type of crime with particular emphasis on the nature, the incidence, correlates, control and prevention. Special attention may be given to white collar crime, computer crime, organized crime, violent crime, sexual crimes, professional crimes, mortality crime, etc. Prerequisite: one of CRIM 100, 101 or 102.

CRIM 314-3 Mental Disorder, Criminality and the Law
Critical examination of the impact of psychiatry and related clinical professions on the criminal justice system. Relationship between institutions of mental health and legal control. The relevance of psychiatric theory and decision-making for the processing of mentally disordered offenders. The role of forensic clinicians in the courts, prisons, mental hospitals and related agencies. Specific issues and cases addressed in this course will include psychiatric assessment, criminal responsibility, fitness to stand trial, prediction of dangerousness, treatment of mentally ill criminals and the penal and therapeutic commitment of the insane. Prerequisite: one of CRIM 100, 101 or 102. Recommended: CRIM 131.

CRIM 315-3 Restorative Justice
An examination of the principles, assumptions, key concepts and applications of restorative (Transformative) justice. The course will cover a range of restorative justice methodologies, including the dominant retributive/punitive model of justice and provide an introduction to a variety of both established and emerging expressions of restorative justice including, victim/offender reconciliation programs, family/group conferencing and circle remedies. Prerequisite: CRIM 131 and one of CRIM 100 or 101 or 102.

CRIM 320-3 Quantitative Research Methods in Criminology
A detailed examination of the quantitative research methods and techniques most frequently used in criminological research. Advantages and disadvantages of each method and the appropriateness of each technique for criminological research. Problems of pure and applied research. Specific issues of interdisciplinary research. Critical evaluation of qualitative methods used in certain major criminological studies. Prerequisite: one of CRIM 100, 101 or 102; one of CRIM 120 or 220. CRIM 320 may be taken concurrently with CRIM 321.

CRIM 321-3 Qualitative Research Methods in Criminology
A detailed examination and application of qualitative research methods and techniques most frequently used in criminological research. Advantages and disadvantages of each method and the appropriateness of each technique for criminological research. Ethics of criminological research. Specific issues of interdisciplinary research. Critical evaluation of qualitative methods used in certain major criminological studies. Prerequisite: one of CRIM 100, 101 or 102; one of CRIM 120 or 220. This course may be taken concurrently with CRIM 320.

CRIM 330-3 Criminal Procedure and Evidence
Critical examination of selected topics in criminal procedure and evidence, including jurisdiction, police powers of search and seizure, the right to counsel and pre-trial and trial procedures. Brief review of the system of rules and standards for each area in which the admissibility of evidence is determined. Close examination of the Charter of Rights and Freedoms and its impact on criminal procedure and evidence. Prerequisite: one of CRIM 100, 101 or 102; 230.

CRIM 331-3 Advanced Criminal Law
An extension of CRIM 230, this course will examine Canadian criminal law in greater depth as well as in comparison with other jurisdictions. Each semester several substantive areas will be analyzed closely. The areas to be examined will be determined by student interest but may include sexual offences, public order offences, mental disorder and the criminal process, property offences, etc. Prerequisite: one of CRIM 100, 101 or 102; 230.

CRIM 332-3 Sociology of Law
Introduction to the theory of sociology of law. Law and social structure. Law as a product of a social system and as an instrument of social change. Social functions of the law. Relationship between law and the structure and function of various other social institutions. The process of law-making. Process by which various interests become translated into legal rules. The social reality of the law; the law in action. Social sciences findings into the operation and practice of the law. Critical and feminist perspectives on law. Public knowledge, awareness, opinions and attitudes to the law, sanctions and the criminal justice
system. Prerequisite: one of CRIM 100, 101 or 102; 135.

CRIM 333-3 Women, Law and the State
This course will provide an in-depth consideration of feminist perspectives on the relationship of women to the state and the law. The nature of the construction of crimes and the family law to the reproduction of gender relations will be analyzed. The implications of legal intervention and non-intervention in family relations, sex-specific and sex-related legislation will be examined. Theoretical concepts and issues such as patriarchal relations, sexuality and reproduction, and formal and informal control will be addressed. Prerequisite: one of CRIM 100, 101 or 102; 135.
Recommended: CRIM 213.

CRIM 335-3 Human Rights and Civil Liberties
A study of the relationship between the government and the individual. Focus upon the Canadian Charter of Rights and Freedoms and its interpretation by the judiciary. Examination of the issues of equality before the law, freedom of speech, freedom of religion and freedom of expression. A study of human rights at the international, federal and provincial levels. Prerequisite: CRIM 330.

CRIM 336-3 Corporate Crime and Corporate Regulation
An examination and analysis of the nature, scope and impact of corporate crime, the principal organizational, political and economic factors involved in the definition and commission of such crime, and the ways in which governments and organizations respond to the problem. Particular types of corporate crime will be used as vehicles for exploring the legal and administrative framework that defines and regulates corporate wrongdoing. Prerequisite: one of CRIM 100, 101 or 102; 135.
Recommended: CNS 280 or ECON 101.

CRIM 338-3 Philosophy of Law
Introduction to the philosophy of law. Concepts of law, constitution and sovereignty. The nature and sources of the law. Examination of natural law, legal positivism, Kelsen's pure theory of law, legal realism, modern normative and analytical theories, critical legal theory and feminist theory. Prerequisite: one of CRIM 100, 101 or 102; 135.

CRIM 343-3 Correctional Practice
An in-depth consideration of a range of factors influencing contemporary correctional practice. The fundamental tension between the interests of offenders and the requirements of those managing correctional programs is placed in the context provided by underlying theoretical assumptions about correctional practice and by influences such as public perceptions, politics and the economy. Prerequisite: one of CRIM 100, 101 or 102. Recommended: CRIM 241.

CRIM 345-3 Theoretical Perspectives on Punishment
Examines theories of punishment in Western societies, with a particular emphasis on the 'revisionist' literature i.e. that which explains punishment techniques in terms of social-structural relationships rather than the rhetoric of reformers. The course also examines competing explanations of the demise of corporal punishment and the ascendance of incarceration at the end of the eighteenth and beginning of the nineteenth century, the advent of various kinds of 'community corrections' through the twentieth century, and changes in punishment and social control with the advent of 'risk society.' Prerequisite: one of CRIM 100, 101 or 102.

CRIM 350-3 Techniques of Crime Prevention I
Techniques of mobilizing community resources for crime prevention. Organizing, implementing and managing citizen efforts to reduce crime. Recruiting citizen assistance, training requirements, establishing and operating citizen organizations, evaluating results. Organizing programs for reducing criminal opportunity, programs for education, employment and recreation. Operating youth services centres, residential programs, crisis intervention and emergency centres. Prerequisite: one of CRIM 100, 101 or 102.

CRIM 352-3 Environmental Criminology: Theory and Practice
Explores the history of the field of environmental criminology and critically examines the theoretical approaches within the field. Special emphasis is placed upon the relationship between crime, fear and the environment, the criminality of place and the decision processes involved in criminal events. Prerequisite: one of CRIM 100, 101 or 102.

CRIM 355-3 The Forensic Sciences
This course will examine the use and interpretation of physical forensic evidence in court. It will critically examine and evaluate the major forensic sciences used in criminal investigations today, as well as look at the crime scene. Subjects examined will include forensic pathology, odontology, biology, DNA evidence, firearms evidence, toxicology chemistry and questioned documents. Techniques will be illustrated with case studies. Prerequisite: one of CRIM 100, 101 or 102.

CRIM 361-0 Practicum III
Third semester of work experience in the Criminology Co-operative Education Program. Prerequisite: successful completion of CRIM 261 and 60 credit hours with a minimum CGPA of 2.75.

CRIM 369-4 Professional Ethics and Interpersonal Skills
Immediate ethical issues confronting the professional in the criminal justice system are examined. Such concerns include privileged communications and confidentiality in fields and research situations; the conflict between the professional's duty to protect society and her/his duty to the client; ethics of decision-making; research ethics; situation ethics; professional ethical codes and legal constraints on professional conduct. Different modes of personal interaction in selected parts of the criminal justice system are examined and taught. Mixed problems of skill and ethics are explored in controlled laboratory settings. Prerequisite: one of CRIM 100, 101 or 102; reserved for criminology majors and honors. This course is a prerequisite for CRIM 462. Completion of this course does not guarantee admission to field practice.

CRIM 370-3 Directed Readings
Independent readings in a selected field of study, under the direction of a single faculty member. Papers will be required. Prerequisite: CRIM 320 and 330, and written application to the school no later than the last day of classes of the preceding semester. CRIM 370 and 470 may not be taken concurrently.

CRIM 402-3 Biological Explanations of Crime
Examines possible biological factors that could result in a predisposition towards criminal behavior. These include not only the genetic factors that affect behavior and therefore could potentially predispose towards crime, but also biochemical, neurological, nutritive and accidental effects such as head injuries. This course will look critically at all evidence both for and against any possible biological predispositions for criminogenic behaviors, together with the interaction between the environment. In particular, moral and ethical issues will be considered and debated. Prerequisite: one of CRIM 100, 101 or 102. Students with credit for CRIM 416 in the summer 2000 or 2001 semester may not take CRIM 402 for credit.

CRIM 410-3 Decision-Making in Criminal Justice
Examination of the factors which influence decision making in the criminal justice system. The exercise of discretion by criminal justice personnel; the role of organizational policies and priorities in decision making; the involvement of victims and the public. Consideration of decision making at specific stages of the criminal justice process. Prerequisite: CRIM 131.

CRIM 411-3 Crime and Victimization of the Elderly
The elderly in conflict with the law: analysis of specific behavioral changes associated with old age likely to bring the elderly person in conflict with the law. An examination of certain types of offenses sometimes committed by the elderly. Treatment and prevention strategies. The elderly as victims: proneness and vulnerability to victimization, patterns of victimization, individual and environmental correlates of victimization, consequences of victimization, fear of victimization. Treatment and preventive strategies. Prerequisite: one of CRIM 100, 101 or 102.

CRIM 412-3 Crime, the Media and The Public
Focus is upon the relationship among the content of media, especially books, films and TV. There will be an examination of the type and frequency of crimes associated with displays in the media, whether coincidentally or causally, and the perception by and impact upon the public of such relationships (physically and psychologically). In addition, there will be an examination of the nature of political efforts by members of the public to alter this inferred relationship through law enforcement and legislative measures. Prerequisite: one of CRIM 100, 101 or 102.

CRIM 413-3 Terrorism
This course will consider the nature, extent, and basis of terrorism as an official crime throughout the world and its impact upon criminal justice systems. Theoretical explanations in a comparative perspective will be employed to examine the impact of terrorism on various countries and the response of governments to it. Prerequisite: one of CRIM 100, 101 or 102.

CRIM 416-3 Current Issues in Criminology and Criminal Justice
A critical analysis of certain 'hot' issues in criminology and criminal justice. The topics covered change from semester to semester. (Seminar) Prerequisite: one of CRIM 100, 101 or 102. A student may not take for credit toward the degree more than three special topics courses (i.e. CRIM 416, 417 418).

CRIM 417-3 Current Issues in Criminology and Criminal Justice
A critical analysis of certain 'hot' issues in criminology and criminal justice. The topics covered change from semester to semester. (Seminar) Prerequisite: one of CRIM 100, 101 or 102. A student may not take for credit toward the degree more than three special topics courses (i.e. CRIM 416, 417 418).

CRIM 418-3 Current Issues in Criminology and Criminal Justice
A critical analysis of certain 'hot' issues in criminology and criminal justice. The topics covered change from semester to semester. (Seminar) Prerequisite: one of CRIM 100, 101 or 102. A student may not take for credit toward the degree more than three special topics courses (i.e. CRIM 416, 417 418).

CRIM 419-3 Indigenous Peoples, Crime, and Criminal Justice
An in-depth examination of indigenous peoples and the criminal justice system. Historical and contemporary consideration of indigenous-white contact. Indigenous conflict with the law and involvement in the criminal justice system. Crime and the delivery of criminal justice services in the Canadian north, including the role of the RCMP and the activities of the circuit criminal court. Examination of federal and provincial policies designed to reduce over-representation of indigenous peoples in the
CRIM 420-3 Advanced Topics in Criminological Research
An extension of CRIM 220 and 320, this course will examine one or more of the following: evaluative research in the criminal justice context; techniques and efficacy of predicting delinquency and recidivism; survey research; archival, historical or legal methods; field research, etc. Prerequisite: one of CRIM 100, 101 or 102; 320 and 321.

CRIM 430-3 Judicial Administration and Planning
Theory and practice of court administration. Examination of the organization of court systems with particular attention to problems of administration and planning. Discussion of the various functions involved in court administration including court registries; court reporting; caseflow management; the role of the judiciary in administration; personnel, fiscal and records management; and information systems. Prerequisite: one of CRIM 100, 101 or 102; 131 and 231.

CRIM 431-3 Comparative Criminal Justice Systems
Critical examination of the theory and method of comparative criminal justice. Review of common law systems, civil law systems, and socialist law systems. Specific consideration of the development, structure and operation of the criminal justice systems in selected countries, which may include England, France, Federal Republic of Germany, the former Soviet Union, the People's Republic of China, and Japan. Focus on the impact of historical, social, political, religious and cultural factors on the criminal justice process. Consideration of the structure and operation of various components of the criminal justice process in selected countries, including the police, criminal courts, and corrections. Prerequisite: one of CRIM 100, 101 or 102.

CRIM 432-3 Gender in the Courts and Legal Profession
The gendered nature of law will be addressed through an examination of its underlying factual assumptions, and the effects of gender on crime research as evidenced in equality litigation. The use of the charter, human rights legislation, and other legal means to achieve gender equality through the legal system in the areas of work, employment and pay equity, and compensation for personal injuries will also be examined. This course will also examine women's struggles to gain admittance to the legal profession, and the barriers which may still prevent them from participating equally in the profession today. Prerequisite: CRIM 330.

CRIM 435-3 Adult Guardianship Law
A comprehensive examination of the law affecting adult guardianship, substitute decision-making, and adult protection in Canada, including a detailed examination of the form, content and philosophical underpinnings of the relevant legislation in British Columbia. Topics include assessing mental incapability, powers of attorney, living wills and health care directives, end of life decision-making, the law affecting consent to health care, and court-ordered guardianship for adults. Prerequisite: one of CRIM 100, 101 or 102. Recommended: one of CRIM 330 or 335. This course is identical to GERO 435 and students cannot take both courses for credit. Students with credit for CRIM 418 when offered as Adult Guardianship Law, and GERO 410 when offered as Adult Guardianship Law, may not take CRIM 435 or GERO 435 for further credit.

CRIM 436-3 Corporate Crime and Corporate Regulation: Advanced Topics
A detailed examination and analysis of particular types of corporate wrongdoing and the nature and impact of the relevant administrative framework. The topics will be selected by the particular course instructor and will, therefore, vary according to the instructor's interests as well as topicality. The areas of corporate crime which are chosen may include, but are not limited to, the following: economic crimes such as violations of statutes which regulate competition, protect intellectual property, and safeguard stock market investors; crimes against the environment such as air and water pollution; and, crimes against consumers including the marketing of hazardous products, contaminated food, or dangerous drugs and devices. Prerequisite: one of CRIM 100, 101 or 102. Recommended: CRIM 336.

CRIM 437-3 Crime and Misconduct in the Professions
This course will examine the self-regulation by professional organizations (e.g. law societies, colleges of physicians and surgeons, stock exchanges) and the increasing demand by other occupational groups and social and economic entities to be governed by similar moral and ethical principles in addition to, or in lieu of, the criminal law. It will specifically examine how the criminal law is used in the context of self-regulation and how professionals can bypass the criminal law through self-regulating organizations. The professions and processes will be examined in the context of administrative, civil and criminal law. Implications for self-regulation in other areas and the future of self-regulation will also be considered. Prerequisite: CRIM 330.

CRIM 440-3 Correctional Administration and Planning
Theory and practice of organization and administration of correctional agencies. Particular attention is given to the political/bureaucratic interface in correctional administration, management styles, labour relations, management support systems and program planning. Identification and assessment of corrections management objectives. The relationship between corrections administration and other components of the criminal justice system. Prerequisite: one of CRIM 100, 101 or 102; 131 and 241. Recommended: POL 251

CRIM 442-3 Restorative Justice Practice: Advanced Topics
An in-depth examination of the various community-based and institutional practices in promoting restorative justice. This course is based on an examination and comparison of the values, philosophical approaches and outcomes of selected western and non-western models. Practices examined will include a range of restorative justice initiatives, including victim-offender mediation, family-group conferencing, multi-party mediation, and various circle remedies. This examination will include the application of restorative justice in the community, in schools and at all levels of the legal process (pre-arrest to post conviction and reintegration). Recommended: CRIM 315 and 343.

CRIM 450-5 Techniques of Crime Prevention II
Introduction to the modern techniques of crime prevention. Emphasis will be on crime prevention and reduction in fear of crime. Crime prevention through social change. Crime prevention through environmental design. Crime prevention through physical planning and architectural design. The concept of 'defensible space.' Obstructing and reducing the opportunities for the commission of crimes. Evaluating crime prevention programs. Prerequisite: one of CRIM 100, 101 or 102.

CRIM 451-3 Advanced Techniques in Forensic Science
Looks at the advanced and sometimes more controversial areas of forensic science used in the criminal justice system today. Most areas are those outside the crime lab and require extensive and in-depth training in a very focused field. Seminars may cover areas such as the use of polygraph, blood spatter pattern analysis, entomology, pathology, odontology, anthropology, genocide investigation, facial approximation, crime scene analysis on land, underwater and mass homicide scenarios. Prerequisite: one of CRIM 100 or 101 or 102. Students with credit for CRIM 420 in 01-3, 00-3, 99-3, 98-3 or 97-3 may not take CRIM 451 for further credit. Recommended: CRIM 355.

CRIM 455-3 Law Enforcement Administration and Planning
This course will cover the following topics: theory and practice of organization and administration of law enforcement agencies. Professional police management. Internal relations. Police strikes. Problems of law enforcement manpower: recruitment, selection, education, training, manpower alternatives, forecasting manpower needs. Problems of development, promotion and assignment in law enforcement. Police-community relations. Improving police image and public attitudes towards the police. Relations with other sectors of the criminal justice system. Prerequisite: one of CRIM 100, 101 or 102; 131 and 251.

CRIM 461-0 Practicum IV
Fourth semester of work experience in the Criminology Co-operative Education Program. Prerequisite: successful completion of CRIM 361 and 75 credit hours with a minimum CGPA of 2.75.

CRIM 462-15 Field Practice
Supervised three month field practicum in selected criminal justice agencies. Students are required to complete a series of reports addressing theoretical and practical issues relating to their placement as well as to attend regular feedback seminar discussions with faculty supervisors and other field practicum students. Prerequisite: prior approval of the school and a minimum CGPA of 2.5 is required. Applicants must be formal criminology majors or honors students, and must be registered in or have completed CRIM 301, 321 and 369. A minimum grade of B- in CRIM 369 is required. Only under exceptional circumstances, to a limit of three credit hours, and with the formal written approval of the director of the undergraduate program, will registration for course work in addition to CRIM 462 be permitted.

CRIM 470-5 Directed Studies
Independent research in a selected criminological area, under the direction and supervision of at least one faculty member. A research report is required. Prerequisite: CRIM 320, 321 and 330. Written application to the school no later than the last day of classes of the preceding semester. Reserved for criminology honors and majors. Recommended: CRIM 370.

CRIM 490-5 Honors Thesis I
An in-depth investigation of a selected topic in criminology; includes a comprehensive review of the literature as well as initial and partial completion of the thesis research. Open only to students who have been admitted to the criminology honors program.

CRIM 491-5 Current Theory and Research in Criminology: Advanced Topics
A detailed and comprehensive examination of the dominant theoretical research programs currently
found in criminology. The subject matter of the seminars may change from year to year according to topicality and may include the following: biological theory and research; social psychological research programs (e.g., social learning theory); environmental criminology; left realism; feminism; post structuralism and post modernism. Students are also required to attend a weekly pro-seminar. Prerequisite: normally open only to students who have been admitted to the criminology honors program. Other students may be admitted under exceptional circumstances with the written permission of the director of undergraduate programs.

CRIM 499-12 Honors Thesis II
An honors thesis is a research report written under the supervision of a faculty member, a copy of which is to be permanently lodged in the School of Criminology. Students are required to attend a weekly seminar at which various issues associated with the linking of theory and method are examined and where students can both discuss their progress and share their research experiences. On completion, the thesis is to be orally defended in a school seminar. Open only to students who have been admitted to the criminology honors program. Students are not permitted to take this course while enrolled in this course. Prerequisite: a minimum grade of B in CRIM 490 and 491 is required.

CRIM 800-3 Theories of Crime
A comprehensive overview of theories and the development of theoretical knowledge in criminology. This seminar will familiarize students with competing levels of understanding vis-à-vis crime and deviance phenomena. The course will emphasize the integration of historical and contemporary theory, theory construction and testing, and the impact of factors such as ideology, politics and social structure on the emergence of criminological thought.

CRIM 801-3 Theories of Crime II
Intensive exposure to the major streams of criminological theory. Topics for in-depth analysis will be selected according to the availability and interest of specific course instructors. Emphasis will be placed on the relationship between ideas and social forces, as well as the interplay of theory and practice.

CRIM 810-3 The Phenomena of Crime I
Designed for the beginning graduate student, this course covers a wide variety of topics all of which deal with the phenomenon of crime historically, temporally and geographically. This course will look at the patterns of crime and victimization, and will explore crime patterns at local, provincial, national and international levels. Known characteristics of specific forms of crime will be studied.

CRIM 811-3 The Phenomena of Crime II
Topics for in-depth analysis will be selected according to the availability and interest of specific course instructors and selected from but not limited to one or more of the following topics: historical criminology; the ecology of crime; environmental criminology; the media and crime; fear of crime; victimization; organized crime; or corporate crime.

CRIM 820-3 Criminal Justice Policy Analysis
An introduction to policy development and policy analysis in the field of criminal justice, including a general review of the function of bureaucratic agencies in the public sector and the particular role of government ministries providing criminal justice services. Major topic areas include: organization theory; policy planning theory; decision theory; inter-organizational analysis as it applies to the administration of justice; and comparative analyses of criminal justice policies especially related to international or trans-national crime.

CRIM 821-3 Criminal Justice Analysis: A Systems Approach
The course will emphasize the systems approach in criminal justice problem analysis, policy development and planning. Program evaluation techniques will be applied to the major types of planning and program initiatives taken within or across criminal justice systems. Topics for in-depth analysis will be selected according to the availability and interest of specific course instructors and may be selected from any area of criminal justice practice including: law enforcement; the judiciary; court administration; corrections; or legal services.

CRIM 830-3 Law and Social Control I
An examination of the social utility of legal intervention in the instance of criminal law; the relationship between law and social order; and the process of law making and the social efficacy of specific criminal sanctions.

CRIM 831-3 Law and Social Control II
Topics for in-depth analysis will be selected according to the availability and interest of specific course instructors and selected from but not limited to one or more of the following themes: theoretical perspectives on punishment and social control; theoretical perspectives on policing; law and mental health; law and the environment; and law and gender.

CRIM 840-3 Proseminar
Examination of current theory and research by faculty in the School of Criminology.

CRIM 860-3 Research Methods I
The course will cover basic research design for criminological problems and basic techniques for the conduct of research in criminology and socio-legal study. The research methods course will comprise both quantitative and qualitative techniques. The course is intended to establish fundamental research skills to be applied in advanced research methods seminars, in other core area courses, and in the preparation of theses and dissertations.

CRIM 861-3 Research Methods II
This course covers both parametric and non-parametric statistical techniques with an emphasis on parametric analysis. Basic descriptive and inferential statistics will be covered, including univariate measures of central tendency, correlation, tests, analysis of variance, regression, and related measures. Also discussed are the experimental and statistical research strategies which produce those data. The approach will be conceptual and will emphasize the strengths, weaknesses, selection and application of various statistical, experimental and quasi-experimental techniques.

CRIM 862-3 Research Methods III
This course will address a range of research techniques generally subsumed under the rubric of ‘qualitative’ research including field research, interview techniques, historical and legal research, and documentary analysis. Emphasis will be on the logic underlying such inquiry, the advantages and limitations associated with different sources of information and procedures, and the processes by which analytical rigor is achieved.

CRIM 863-3 Research Methods IV
Advanced topics, issues and techniques in criminological and socio-legal research. The subject matter of this course will vary according to instructor interests and specialization. Specific areas of concentration may include the following: advanced multivariate statistical techniques, documentary and historical methods, evaluative and predictive research, participant methods, geography, systems analysis, and computer simulation modeling. Prerequisite: CRIM 860, 861, 862, or by permission of the instructor.

CRIM 869-3 Professionalism and Criminal Justice
This course is designed for students entering a field practicum placement via CRIM 880 and is a required component of the MA by coursework, project and Practicum option. It introduces the student to the legal and ethical issues relevant to professionalism and leadership in the field of Criminology. Related professional roles and functions are examined. The course integrates theory and practice from a case study perspective.

CRIM 870-3 Directed Readings
Intensive readings under the supervision of a faculty member, in areas of interest related to the student’s program.

CRIM 871-3 Selected Topics
Concentrated studies in areas of student specialization.

CRIM 872-3 Selected Topics
Concentrated studies in areas of student specialization.

CRIM 873-3 Selected Topics
Concentrated studies in areas of student specialization.

CRIM 880-3 Field Practicum
A semester of full time advanced and intensive practicum experience supervised by selected faculty and justice system personnel. Students will assume a large measure of responsibility and participate in a range of activities related to the placement. Prerequisite: CRIM 869.

CRIM 885-3 Master’s Project
MA by coursework, project and practicum paper. Prerequisite: CRIM 869.

CRIM 898-6 MA Thesis
CRIM 899-6 PhD Thesis

Undergraduate Semester in Dialogue DIAL

DIAL 390-5 Undergraduate Semester: Dialogue
The Dialogue component of the Undergraduate Semester at the Centre for Dialogue will immerse students in the art and practice of thinking and communicating. The focus will be on strategies and methods to use in understanding diverse perspectives. Students will have an opportunity to expand their verbal and written communication skills as well as explore dialogue as a developing academic field. The specific focus of the course and the assignments will be linked and interwoven with the current semester’s offering of DIAL 391 and 392, which must be taken simultaneously with DIAL 390. Prerequisite: 45 credit hours prior to beginning the Undergraduate Semester at the Centre for Dialogue. Students should apply two semesters before the semester in which they wish to enroll. Corequisites: DIAL 391, 392.

DIAL 391-5 Undergraduate Semester: Seminar
Topics covered each semester will vary, but generally each course will examine a subject that encourages broad approaches and probes provocative issues. The course will consist of discussions led by faculty, frequent visits from relevant off-campus experts, a heavy reading load, and a number of individual and group student projects. Learning will be active rather than passive, stimulating students to research, explore and discuss rather than following a lecture format. Prerequisite: 45 credit hours prior to beginning the Undergraduate Semester at the Centre for Dialogue. Students should apply two semesters before the semester in which they wish to enroll. Corequisite: DIAL 390, 392.
EASC 101-3 Physical Geology
An introduction to the origin and character of minerals, rocks, earth structure, earth surface processes and plate tectonic theory. Students with credit for GEOG 112 cannot take this course for further credit.

EASC 103-3 The Rise and Fall of the Dinosaurs
An introductory course that deals with the class Dinosauria, and in particular, how our understanding of this extinct group of animals has been radically altered in the light of new discoveries during the last few decades. The course addresses the rise of the dinosaurs, their evolution and its recognition in the different groups, fossil data regarding dinosaur metabolism, evidence of dinosaur behavior, possible evolutionary relationships with birds and so-called feathered dinosaurs, and theories of dinosaur extinction.

EASC 104-3 Geohazards — Earth in Turmoil
An introduction to the range of geological hazards that affect the Earth, the environment and humanity. Topics covered will include the hazards and risks related to volcanic eruptions, earthquakes, landslides and avalanches, tsunamis, geomagnetic storms and other potentially cataclysmic events. The forecasting and possible mitigation of these geohazards will also be investigated. Students with credit for GEOG 312-4 may not take this course for additional credit.

EASC 106-3 Earth Through Time
An introduction to the changes that the Earth has experienced, from its initial formation to the present day, intended for non-majors. Topics include changes in plate tectonic style, mountain building periods, glaciations during Earth history, formation of life, the nature of plate tectonics on a sphere; the Earth’s magnetic field and its use in reconstruction of past plate motions; earthquake seismology and understanding the deep interior, gravity and lithospheric flexure, radioactive decay and an absolute geologic time scale; heat loss and mantle convection; structure of oceanic lithosphere; structure of continental lithosphere; the early Earth and the tectonics of other planets. Prerequisite: EASC 207 or permission of instructor.

EASC 301-3 Igneous and Metamorphic Petrology
Mineralogy, petrology, significance of igneous rocks; classification of igneous rocks. Mineralogy and textures of metamorphic rocks; hand sample and thin sections. Prerequisite: EASC 205 and 206.

EASC 302-3 Sedimentary Petrology
Description and classification, field and microscopic identification of sedimentary rocks; petrogenesis and paleoenvironmental reconstruction. Prerequisite: STAT 101, EASC 201 and 205.

EASC 303-3 Environmental Geoscience
Environmental geoscience is a branch of earth science that deals with the relationship of people to their geological habitat. Topics covered will include environmental impact of mineral extraction and logging; erosion; pollution in rural and urban environments; and mass movements in mountainous terrain. The course includes two 1-day fieldtrips that usually occur on Saturdays. Prerequisite: 75 credit hours including six credit hours in Earth Sciences and GEOG 213.

EASC 304-3 Hydrogeology
Introduction to the theory of groundwater flow; flow nets; well hydraulics; regional groundwater evaluation. Prerequisite: One of EASC 101 or GEOG 111, and PHYS 126 or 121 (or PHYS 102 with a grade of B or higher).

EASC 306-3 Field Geology II
A twelve day field camp held after final exams in the Spring semester. Students will learn how to observe, record and interpret geological features, and will carry out geological mapping and analysis. Approximately five 1-hour lectures on field methods, equipment and safety will precede the field camp. Field locations may vary from year to year. (field study) Prerequisite or corequisite: EASC 201, 204, 205, 206 and GEOG 213.

EASC 307-3 Applied Geophysics
Application of advanced concepts in applications of electrical, electromagnetic, ground penetrating radar and seismic methods for engineering and geoscience applications. Prerequisite: EASC 207.
EASC 408-3 Regional Geology of Western Canada
The stratigraphy, structure and historical geology of western Canada. Terrane analysis. Important mineral and fossil emphasis on forestry and minerals. Prerequisite: EASC 309. Students who completed EASC 305 prior to fall 1998 may not take this course for credit.

EASC 409-3 Rivers: Environments and Engineering
Fluid mechanics of open channel flow, channel formation, sediment transport and deposition, and river engineering case studies. Prerequisite: EASC 201, GEOG 313, MATH 152 and PHYS 121.

EASC 410-3 Groundwater Geochemistry and Contaminant Transport
An introduction to chemical and mass transport processes in groundwater systems. Topics include the basic principles of aqueous geochemistry, the evolution of groundwater in different natural geological environments, and contaminant hydrogeology. The processes and principles governing mass transport, including advection, dispersion and diffusion are emphasized. Prerequisite: EASC 304, CHEM 121. Recommended: CHEM 122.

EASC 411-3 Terrain Analysis
Application and role of Quaternary Geology in terrain mapping applications and will emphasize the British Columbia Terrain Classification System. Applications of terrain maps, including landslide, earthquake and volcanic hazard mapping will be discussed. The lab sessions will cover morphological mapping, surficial material genesis, geomorphic processes and finally, production of a terrain and terrain stability map. The course includes 3 days in the field to ground truth the map. Prerequisite: EASC 206, 303. Recommended: GEOG 252, 313.

EASC 412-3 Advanced Geochemistry
Application of thermodynamics to earth science problems, experimental study of mineral equilibria, theoretical development of geothermobarometers for earth systems science, the importance of aqueous and gaseous phases in the transport and precipitation of geological phases framed within the context of global tectonics, and the application of stable and radiogenic isotopes to problems within the earth sciences. Prerequisite: EASC 208, 301.

EASC 413-3 Resource Geotechnics
Application of geotechnics to the resource sector with particular emphasis on forestry and minerals. Topics covered will include: Engineering geological characterization, slope failure mechanisms in soil and rock, methods of slope stability analysis, techniques of slope reinforcement and stabilization, slope monitoring, terrain mapping and data collection, and underground excavation and petroleum geotechnics. Brief case studies will be used to illustrate the influence of geotechnics in the forestry, mining and the petroleum industries. Prerequisite: EASC 313 or permission of instructor.

EASC 416-3 Field Techniques in Hydrogeology
This course is intended to complement the theoretical aspects of physical hydrogeology and aqueous geochemistry covered in the course, with applications of the theoretical development of geothermobarometers for Earth science and plate tectonics of Western Canada; seismic surveying techniques (ground-based systems, cable systems, aerial systems, hand logging and horse logging), elements of operational logging (layout of cut blinds and road systems), and forest development plans. Prerequisite: EASC 313, 411 and 413.

EASC 418-1 Terrain Stability: Assessment and Mitigation
A field-based course dealing with site specific assessment of the areas to be logged or impacted by road construction. Topics covered will include terrain stability assessment field procedures, environmental impact and mitigation in forest terrains, forestry-related landslides, forest road construction and deactivation. Rock slope stability assessment. Prerequisite: EASC 313, 411 and 413.

EASC 419-1 Forest Harvesting Technology
A field-based course dealing with techniques used in the harvesting of timber; their impact and mitigation. Topics covered will include forest harvesting techniques (ground-based systems, cable systems, aerial systems, hand logging and horse logging), elements of operational logging (layout of cut blinds and road systems), and forest development plans. Prerequisite: EASC 313, 411 and 413.

EASC 420-3 Petroleum Geology
Elements of the petroleum system, including basin type, source rock origination, migration, and trapping mechanisms. Techniques used to identify and map potential hydrocarbon reservoirs in the subsurface, including geophysical methods, surface mapping, well log correlation, and core/chip sample descriptions will be discussed. This material will be presented in a context that demonstrates the life cycle of a hydrocarbon field from exploration (early), delineation (assessment), and production (mature) stages. Datasets available during different stages of development will be discussed in light of their pertinence to optimal reservoir performance. Prerequisite: EASC 207, 302, 304, and 309, or permission of the instructor.

EASC 491-1 Directed Readings
A course in which reading and research, and/or field work will be supervised by a faculty member. Prerequisite: 75 credit hours including 30 hours in earth sciences courses and permission of the department.

EASC 492-2 Directed Readings
A course in which reading and research, and/or field work will be supervised by a faculty member. Prerequisite: 75 credit hours including 30 hours in earth sciences courses and permission of the department.

EASC 493-3 Directed Readings
A course in which reading and research, and/or field work will be supervised by a faculty member. Prerequisite: 75 credit hours including 30 hours in earth sciences courses and permission of the department.

EASC 499-9 Honors Thesis
Will include experimental and/or theoretical research in earth sciences or a related discipline, and the preparation of a thesis (research report). Selection of a research topic and preparation of the thesis will be done in consultation with a faculty member in earth sciences. A research seminar will be delivered at the end of the semester. Prerequisite: 105 credit hours, admittance to the honors program and consent of a thesis supervisor.

EASC 600-0 Introduction to Graduate Studies
A required course designed to acquaint new graduate students with the research strengths of the program, research facilities in the University, and its vicinity. Procedures and policies relating to preparation, conduct and presentation of thesis research will be discussed.

EASC 603-3 Field Techniques in Hydrogeology
This course is intended to complement the theoretical aspects of physical hydrogeology and aqueous geochemistry covered in the course, with applications of the theoretical development of geothermobarometers for Earth science and plate tectonics of Western Canada; seismic surveying techniques (ground-based systems, cable systems, aerial systems, hand logging and horse logging), elements of operational logging (layout of cut blinds and road systems), and forest development plans. Prerequisite: EASC 313, 411 and 413.

EASC 604-3 Deformation Mechanisms and Continental Tectonics
This course will focus on increasing the level of understanding of the mechanisms by which rocks deform and the effect of environmental variables (effective pressure, temperature, strain rate, chemical environment, etc.) on these deformation mechanisms. Lectures will cover flow concepts applied to ductile deformation, grain-scale to crustal-scale strain partitioning, and models of exhumation of metamorphic rocks. The link between far-field effects such as lithosphere rheology, climate and erosion, and orogenic style will also be discussed. Prerequisite: undergraduate level courses in structural geology and global tectonics, equivalent to EASC 204 and 309 (or permission of the instructor).

EASC 606-3 Advanced Field Methods in Earth Sciences
Focuses mainly on the field description, measurement and interpretation of geological, geochemical and geophysical features, and may concentrate on certain aspects of bedrock or surficial geology. Includes methods of data acquisition, display and modeling. Field exercises may be augmented by directed readings and laboratory studies. Course costs depend on the location and duration of field work and the nature of related investigations. Prerequisite: permission of the instructor.

EASC 607-3 Exploration Seismology
Application of seismic methods of the delineation of hydrocarbon deposits and crustal structure. Travel time expressions for a layered Earth, Zoeppritz equations; 2-D and 3-D seismic surveying methods; reflection data processing, including deconvolution and migration; amplitude versus offset methods and direct hydrocarbon detection: seismic wave propagation in Earth's crust; refraction inversion; principles of seismic interpretation. Prerequisite: EASC 417 or equivalent.

EASC 608-3 Advanced Metamorphic Petrology
Field relations, nature and origin of metamorphic and metasomatic rocks, graphical methods and interpretation of mineral assemblages and heat-flow regimes in the framework of global tectonics, with...
special emphasis on derivation of pressure-temperature-fluid conditions ranging from low-grade rocks through granulates to partial melts. Laboratory: petrographic techniques applied to the study of rock suites. Prerequisite: permission of the instructor.

EASC 611-3 Sedimentology
An advanced treatment of topics which may include processes of sedimentation, facies model concepts, applications of ichnology, and depositional environments with an emphasis on siliciclastic successions. Course content will be tailored to student interest, but generally will include both non-marine and marine processes of sedimentation and resultant depositional systems. The development of effective field criteria for the interpretation of the sedimentary record will be emphasized.

EASC 612-3 Stratigraphy
Stratigraphic concepts of lithostratigraphy, biostratigraphy, chronostratigraphy and genetic stratigraphy. The course concentrates on genetic stratigraphy, with emphasis on allostratigraphy, genetic stratigraphic sequences and sequence stratigraphy. Students will critically assess each paradigm and its applicability to both the subdivision and the interpretation of the sedimentary record. Relative sea level and their effects on deposition will be discussed in relation to the preserved sedimentary record. Students will examine the utility of facies analysis in the various genetic stratigraphic frameworks and the viability of reconstructing the depositional history of sedimentary successions.

EASC 613-3 Groundwater Modelling
An introduction to groundwater modelling providing the relevant theory and practical experience to develop and test conceptual models, to recognize data requirements, and to identify the limitations of numerical models. The state-of-the-art groundwater modelling software will be used. An emphasis is placed on modelling flow in the saturated zone, but unsaturated zone hydrology, solute transport, and density dependent flow are also covered.

EASC 614-3 Subsurface Techniques
Advanced topics in subsurface exploration methods. Methods of drilling; core description and analysis; well logging.

EASC 615-3 Applied Geophysics
Instrumentation, application and limitations of electrical, seismic, radar and gravity methods in the exploration for mineral resources and in engineering applications.

EASC 616-3 Fluvial Systems
Fluid mechanics of open channel flow; physical sedimentology and sediment transport in aqueous environments. Prerequisite: appropriate standing in Applied Mathematics and in Physics.

EASC 617-3 Quaternary Geology
Environments of glacial and proglacial deposits. Quaternary stratigraphy and dating methods with emphasis on the Cordillera.

EASC 618-3 Tectonics of Sedimentary Basins
Regional processes of subsidence and basin formation from a plate tectonic viewpoint. The course will examine the origins and general characteristics of convergent, divergent, intraplate and hybrid basins. Methods of discriminating basin origins from an understanding of depositional systems, stratigraphic analysis, provenance and components will be examined.

EASC 619-3 Environmental Geoscience
An examination of the concepts, methods and techniques used in advanced case studies of environmental geology, in fields including forestry, environmental geochemistry, earthquake and volcanic hazard, and urban planning.

EASC 620-3 Volcanology
Physical, chemical and tectonic aspects of volcanology examined with emphasis on processes of magma generation and evolution, styles of eruption, environmental deposition, and interpretation of volcanic facies. Prerequisite: undergraduate course in petrology and structural geology.

EASC 621-3 Tectonics and Magmatism
Convergent Plate Margins
Geological processes at convergent plate margins are considered in the context of plate tectonic principles. Topics to be addressed include: driving forces of tectonic plates, mantle convection, geometry of subducted slabs, ridge-trench intersections, generation of volcanic arcs, causes of anomalous magmatism, accretion of terranes, and transpression of orogenic float. Prerequisite: undergraduate structural geology and petrology courses.

EASC 622-3 Principles of Ichnology
The conceptual framework of ichnology with particular emphasis on the ethological (behavioral) classification of biogenic structures, as well as its applications to the ichnologies concept and paleoenvironmental interpretation of the sedimentary record. Environmental stresses and organism responses will be integrated with conventional sedimentological approaches to highlight the complex inter-relationships between infauna and the environments they inhabit. The genetic stratigraphic applications of ichnology will also be addressed. Prerequisite: advanced undergraduate sedimentology course.

EASC 623-3 Groundwater Resource Evaluation
In addition to examining groundwater resources (exploration, evaluation and management), this course expands upon the theory and use of aquifer tests and their respective methods of analysis for evaluating groundwater resources. Advanced methodologies for partially penetrating wells, leaky aquifers, anisotropic aquifers, double porosity type and fractured aquifers will be included. Computer applications will be emphasized. Prerequisite: undergraduate course in groundwater.

EASC 624-3 Geology of the Canadian Cordillera
The stratigraphy, structure and historical geology of the Canadian Cordillera, examined from a plate tectonic perspective of development of the various terranes and related entities, and their amalgamation to form the present Cordillera, will be examined in detail. Prerequisite: An undergraduate background that includes courses at any level in structural geology, plate tectonics, geochemistry, geophysics, petrology (sedimentary, metamorphic, and igneous), plus permission from the instructor.

EASC 625-3 Issues in Canadian Cordillera Geology and Tectonics
A reading and seminar course on topics related to the development and ongoing evolution of the Canadian Cordillera. Topics will be based on student areas of interest and on current ‘hot topics’ concerning this orogenic belt. One or more field trips might be conducted if there is sufficient interest and such trips would compliment the topics of discussion. Prerequisite: An undergraduate background that preferably includes courses at any level in structural geology, plate tectonics, geochemistry, geophysics, petrology (sedimentary, metamorphic, and igneous). This background will be assessed by the instructor, whose specific permission must be obtained before registration.

EASC 627-3 Carbonate Depositional Systems
Focuses on the modern and ancient carbonate depositional system, including platform geometry, grain types, diagenesis, porosity development, climatic influence, and eustatic influence. Petrology of outcrops, cores, and thin sections will be discussed and applied to characterization of carbonate systems in the subsurface. Presents a combination of academic theory and practical applications used in the petroleum industry, especially in directed study exercises. Mandatory weekend field trip to classic carbonate outcrops in western Canada. Prerequisite: permission of instructor.

EASC 703-3 Special Topics in Earth Sciences
Prerequisite: permission of the instructor.

EASC 704-3 Special Topics
Prerequisite: permission of the instructor.

EASC 705-3 Special Topics
Prerequisite: permission of the instructor.

EASC 706-3 Special Topics
Prerequisite: permission of the instructor.

EASC 707-3 Special Topics
Prerequisite: permission of the instructor.

EASC 708-3 Special Topics
Prerequisite: permission of the instructor.

EASC 709-1 Directed Readings
Prerequisite: permission of the instructor.

EASC 710-2 Directed Readings
Prerequisite: permission of the instructor.

EASC 711-3 Directed Readings
Prerequisite: permission of the instructor.

EASC 898-6 MSc Thesis
Prerequisite: Registration in PhD Program.

EASC 901-1 PhD Research Seminar (seminar), Prerequisite: Registration in PhD Program.

EASC 998-6 PhD Thesis
Prerequisite: Registration in PhD Program.

Economics CON
Faculty of Arts and Social Sciences

ECON 101-3 The Canadian Economy
An introduction to the development of the Canadian economy and the analysis of Canadian economic problems. Students with credit for Economics courses at the 200 (or higher) division (excluding ECON 200 and 205) may not take ECON 101 for further credit.

ECON 102-3 The World Economy
An overview of the broad economic trends in the development of the world economy over the last five decades with reference to the major debates related to economic interdependence, development and growth, globalization, and the role of the major multilateral economic institutions (IMF, World Bank, OECD, ILO, UN), (lecture/tutorial) Students with credit for Economics courses at the 200 (or higher) division (excluding ECON 200 and 205) may not take ECON 102 for further credit.

ECON 103-3 Principles of Microeconomics
The principal elements of theory concerning utility and value, price and costs, factor analysis, productivity, labor organization, competition and monopoly, and the theory of the firm. Students with credit for ECON 200 cannot take ECON 103 for further credit.

ECON 105-3 Principles of Macroeconomics
The principal elements of theory concerning money and income, distribution, social accounts, public finance, international trade, comparative systems, and development and growth. Students with credit for ECON 205 cannot take ECON 105 for further credit.

ECON 110-3 Foundations of Economic Ideas
A preliminary approach designed to familiarize students with economic ideas and methods of economic analysis. The focus will vary from semester...
to semester. Students with credit for ECON 100 cannot take ECON 110 for further credit.

**ECON 208-3 History of Economic Thought**
A study of the evolution of the main concepts of economic theory. Attention will be given to the relationship between doctrines and the economic, political, and social environment in which they developed. Prerequisite: ECON 103 or 200 and 105 or 205. Students with credit for ECON 308 may not take ECON 208 for further credit.

**ECON 210-3 Money and Banking**
Banking theory and practice in a Canadian context; the supply of money; the demand for money and credit creation; monetary policy in a centralized banking system and in relation to international finance. Prerequisite: ECON 103 or 200 and 105 or 205. Students with credit for ECON 310 cannot take ECON 210 for further credit.

**ECON 250-3 Economic Development in the Pre-Industrial Period**
The pre-industrial period. History of the economic development of civilization from ancient times until the industrial revolution. Emphasis will be placed on the influence of geographical factors, discoveries and inventions, religion, and social organization and customs. Prerequisite: ECON 103 or 200 and ECON 105 or 205. Students with credit for ECON 150 cannot take ECON 250 for further credit.

**ECON 252-3 Historical Transitions to Modern Economic Growth**
The industrial period. Analysis of the main historical features of economic development from the industrial revolution to the present. Prerequisite: ECON 103 or 200 and ECON 105 or 205. Students with credit for ECON 152 cannot take 252 for further credit.

**ECON 260-3 Environmental Economics**
Economic analysis of environmental problems (water and air pollution, etc.). Evaluation of market failures due to externalities and public goods. Market and non-market regulation of environmental problems. Prerequisite: ECON 100 or 200. Students with credit for ECON 360 cannot take this course for further credit.

**ECON 261-3 Resources and Economy of British Columbia**
Review of the development of the British Columbia economy with an emphasis on the role played by natural resources. Examination of the economics of major BC natural resources and the design of policies for their exploitation. Prerequisite: ECON 103 or 200 and 105 or 205. Students with credit for ECON 201 cannot take 261 for further credit.

**ECON 278-0 Economics Practicum I**
First semester of work experience in the Economics Co-operative Education Program. Prerequisite: 30 credit hours including ECON 103 or 200 and ECON 105 or 205. At least 12 of these 30 credit hours must be completed at Simon Fraser University with a minimum CGPA of 2.75. Students should apply to the Faculty of Arts and Social Sciences co-op co-ordinator by the end of the third week of the preceding semester.

**ECON 279-0 Economics Practicum II**
This is the second semester of work experience in the Economics Co-operative Education Program. Prerequisite: economics lower division requirements and completion of 45 semester hours at least 12 of which must be completed at Simon Fraser University, with a CGPA of 2.75. Students should apply to the Faculty of Arts and Social Sciences co-op co-ordinator by the end of the third week of the preceding semester.

**ECON 282-3 Selected Topics in Economics**
The subject matter will vary from semester to semester. (lecture/tutorial). Prerequisite: ECON 103 or 200, and 105 or 205.

**ECON 290-3 Canadian Microeconomic Policy**
A general survey of Canadian microeconomic policy issues. The course covers topics such as regulation, taxation, environmental and resource policy, health care, education, and competition. Prerequisite: ECON 103 or 200 and ECON 105 or 205.

**ECON 291-3 Canadian Macroeconomic Policy**
A general survey of Canadian macroeconomic policy issues. Topics will include the costs of inflation and unemployment, monetary and fiscal policy, the effects of government debt and exchange rate policy. Prerequisite: ECON 103 or 200 and ECON 105 or 205.

**ECON 300-3 Intro to Economic Concepts and Issues**
The objective of this course is to introduce students to the economic approach to decision-making by individuals, firms and institutions. They will see how economic analysis can be used to interpret current economic issues and as an aid to the formation and evaluation of government policy. The course will focus on both microeconomic and macroeconomic concepts. By exploring economic issues, the course will encourage critical thinking and develop problem-solving skills. Prerequisite: this course is available only to students who are registered in the Integrated Studies Program.

**ECON 301-4 Microeconomic Theory I: Competitive Behavior**
Aspects of microeconomic theory involving competitive markets. Topics include the behavior of households and firms, partial equilibrium analysis of product and factor markets, and general equilibrium. (lecture/tutorial) Prerequisite: ECON 103 or 200 and ECON 105 or 205; MATH 157; two 200 division ECON or BUEC courses (excluding BUEC 232), 60 credit hours. Students with a minimum grade of A- in both ECON 103 and ECON 105 can take ECON 301 after 30 credit hours and are not required to meet the 200 level ECON or BUEC course requirements. Students seeking permission to register based on ECON 103 and 105 grades must contact the Undergraduate Advisor in Economics.

**ECON 302-4 Microeconomic Theory II: Strategic Behavior**
Aspects of microeconomic theory concerned with strategic behavior, imperfect information, and market failure. Topics include game theory and oligopoly; uncertainty and asymmetric information and market power, externalities and public goods, together with related issues in welfare economics. Prerequisite: ECON 301. Students who have taken ECON 383-3 in 1998-3 and 1999-3 cannot take this course for further credit.

**ECON 305-5 Intermediate Macroeconomic Theory**
Concepts and methods of analysis of macroeconomic variables — consumption, investment, government and foreign trade. Classical and Keynesian models compared; analysis of economic statics and dynamics. Prerequisite: ECON 103 or 200; ECON 105 or 205; MATH 157; two 200 division ECON or BUEC courses (excluding BUEC 232), 60 credit hours. Students with a minimum grade of A- in both ECON 103 and 105 can take ECON 305 after 30 credit hours and are not required to meet the 200 level ECON or BUEC course requirements. Students seeking permission to register based on ECON 103 and 105 grades must contact the Undergraduate Advisor in Economics.

**ECON 309-5 Introduction to Marxian Economics**
Examination of Marx's economic theory, with particular emphasis on capital, theories of surplus value, and the Grundrisse. Consideration of earlier work as the basis for studying the above. Identification of the critical differences between Marxian economic theory and the dominant schools of economic theory in North America. Prerequisite: ECON 103 or 200 and 105 or 205, or permission of the department; 60 credit hours.

**ECON 325-3 Industrial Organization**
Introduces students to the economics of imperfect competition. Topics covered include the theory of the firm, market structure, and various aspects of firm strategy such as pricing, advertising, product differentiation, and innovation. Related questions of public policy will also be addressed. Prerequisite: ECON 301; 60 credit hours.

**ECON 331-5 Introduction to Mathematical Economics**
The mathematical interpretation of fundamental economic concepts; demand, supply, competitive equilibrium. Application of the calculus to production and distribution theory, growth models and investment theory. Differential and difference equations in dynamic economic models. Introduction to activity analysis. Prerequisite: ECON 103, 105 and MATH 157 or 151; 60 credit hours.

**ECON 342-3 International Trade**
Topics discussed in this course are gains from trade in a classical world; the modern theory of international trade; factor price equalization; empirical tests and extensions of the pure trade model; economic growth and international trade; the nature and effects of protection; motives and welfare effects of factor movements; multinational enterprises; the brain drain; customs union theory; pollution control and international trade. Prerequisite: ECON 103 or 200 and 105 or 205; 60 credit hours or permission of the department. Students with credit for ECON 442 cannot take this course for further credit.

**ECON 345-3 International Finance**
Foreign exchange markets; determination of spot and forward exchange rates; Euro currency markets; balance of payments statistics; international adjustment theory; income price and exchange rate effects; the role of international short term capital flows; the international monetary system: gold standard, freely floating rates, dollar gold exchange standard, centrally created reserves. Prerequisite: ECON 103 or 200 and 105 or 205; 60 credit hours or permission of the department. Students with credit for ECON 445 cannot take this course for further credit.

**ECON 353-4 Economic History of Canada**
Analysis of leading issues in Canadian economic history. The historical experience of other areas will be examined when useful contrasts can be made. Prerequisite: ECON 301; 60 credit hours.

**ECON 355-4 Economic Development**
Analysis of theories of economic development. Consideration will be given to the requirements of successful development, to aspects of international co-operation, and to procedures of economic planning. Problems of emerging countries and models of various developing economies will be studied. Prerequisite: ECON 103 or 200 and 105 or 205; 60 credit hours. Students with credit for ECON 455 may not take ECON 355 for further credit.

**ECON 362-4 Economics of Natural Resources**
Application of economic analysis to natural resource problems and efficient management practice; public policy considerations in respect to development and conservation; benefit-cost analysis. Prerequisite: ECON 301; 60 credit hours.

**ECON 367-3 Transportation**
The economic function of transportation; analysis of cost, demand and pricing in various transportation industries; evaluation of public policy toward provision of transportation facilities and the regulation of transport industries. Prerequisite: ECON 103 or 200 and 105 or 205; 60 credit hours.
ECON 368-3 [Regional Economic Analysis]
Introduction to regional impact analysis. Analysis of economic models of industrial location and spatial equilibrium. Examination of regional growth theories and their policy implications. Prerequisites: ECON 301 or 200 and 105 or 205; 60 credit hours. Students with credit for ECON 365 may not take this course for further credit.

ECON 378-0 [Economics Practicum III]
This is the third semester of work experience in the Economics Co-operative Education Program. Prerequisite: Economics lower division requirements and completion of 60 credit hours, at least 12 of which must be completed at Simon Fraser University with a CGPA of 2.75. Students should apply to the Faculty of Arts and Social Sciences co-op co-ordinator by the end of the third week of the preceding semester.

ECON 379-0 [Economics Practicum IV]
This is the last semester of work experience in the Economics Co-operative Education Program. Prerequisite: ECON 301-4 or ECON 365-5 and 75 credit hours with a CGPA of 2.75. Students should apply to the Faculty of Arts and Social Sciences co-op co-ordinator by the end of the third week of the preceding semester.

ECON 381-3 [Labor Economics]
Analysis of the economics of the labor market with particular emphasis on wage determination, the concept of full employment, and manpower policies. Prerequisite: ECON 301; 60 credit hours.

ECON 382-3 [Selected Topics in Economics]
The subject matter will vary from semester to semester depending upon the interests of faculty and students. (lecture/tutorial) Prerequisite: ECON 103 or 200 and 105 or 205; 60 credit hours.

ECON 383-3 [Selected Topics in Economics]
The subject matter will vary from semester to semester. (lecture/tutorial) Prerequisite: ECON 103 or 200 and 105 or 205; 60 credit hours.

ECON 387-3 [Selected Topics in Economics]
The subject matter will vary from semester to semester. (lecture/tutorial) Prerequisite: ECON 103 or 200 and 105 or 205; 60 credit hours.

ECON 388-3 [Introduction to Law and Economics]
An introduction to the economic analysis of law, emphasizing the concepts of transaction costs and property rights. A variety of topics will be analyzed, ranging from the allocative effects of alternative property rights to contract tort and nuisance law, out-of-court settlements and alternative legal fee structures. Prerequisites: ECON 103 or 200; ECON 105 or 205; 60 credit hours.

ECON 389-3 [Selected Topics in Economics]
The subject matter will vary from semester to semester. Prerequisite: ECON 301.

ECON 390-3 [Canadian Public Policy]
Theories of government policy making as applied to the Canadian economy. Specifically, behavioral theories and current Canadian case studies are used to explore both private and public decision processes and the role of policy analysts in that context. (lecture/tutorial) Prerequisite: ECON 103 or 200 and 105 or 205; 60 credit hours.

ECON 392-3 [Public Economics: Role of Government]
The study of the normative rationale for government in a market economy through an analysis of distributional issues, public goods, externalities, non-competitive market structures, and asymmetric information. Prerequisite: ECON 301.

ECON 393-3 [Public Economics: Taxation]
The study of the public economics of taxation including the efficiency and distributional aspects of taxation, the incentive effects of taxation, tax incidence, tax evasion and fiscal federalism. Prerequisite: ECON 301.

ECON 395-5 [Comparative Economic Systems]
Economic analysis of various methods of the allocation of resources and distribution of income. Comparative study of capitalist, communist, socialist, and mixed forms of national economic organization. Prerequisite: ECON 103 or 200 and 105 or 205; 60 credit hours.

ECON 398-3 [Directed Studies]
Independent reading and research on topics selected in consultation with the supervising instructor. This course can only be taken once for credit towards a degree or diploma. Prerequisite: ECON 103 or 200 and ECON 105 or 205; 60 credit hours.

ECON 402-3 [Advanced Microeconomic Theory]
Advanced coverage of microeconomic theory for students intending to pursue graduate study in economics. Topics may include general equilibrium, game theory, and asymmetric information. (lecture) Prerequisite: ECON 301, 305 and 331; 60 credit hours.

ECON 403-3 [Advanced Macroeconomic Theory]
Advanced coverage of macroeconomic theory for students intending to pursue graduate study in economics. Topics may include economic growth, business cycles, and monetary theory. (lecture) Prerequisite: ECON 301, 305 and 331; 60 credit hours.

ECON 404-3 [Methodology of the Social Sciences]
Critical discussion of contemporary and original papers in the social sciences. Emphasis will be on the objectives, the logical aspects, and the testability of social science theories and models. Prerequisite: 70 credit hours.

ECON 407-3 [Seminar in Marxist Economics]
Examination of particular areas of current interest and work in Marxist economics. Focus will vary from semester to semester. Prerequisite: ECON 309 or permission of the department.

ECON 409-3 [Seminar in Economic Thought]
Consideration of particular economic theorists, schools of thought or themes in economic thought. Focus will vary from semester to semester. Prerequisite: ECON 305 and 305, or permission of the department; 60 credit hours.

ECON 410-3 [Seminar in Monetary Theory]
Analysis of money as an economic variable; role of money in micro and macroanalysis. Prerequisite: ECON 301 and 305.

ECON 423-3 [Seminar in Game Theory]
An introduction to the basic concepts of game theory and their application to problems in a number of areas. Prerequisite: ECON 301, 60 credit hours; or permission of the department.

ECON 425-3 [Seminar in Industrial Organization]
This course will cover topics in industrial organization in depth. Topics may include theories of the firm and contractual behavior, the economics of vertical restraints, product differentiation, theories of market structure, an analysis of empirical industrial organization studies, topics in competition policy or antitrust law, public utility regulation. Emphasis will be given to covering a limited number of issues in detail rather than attempting a broad survey of industrial organization theories. Prerequisite: ECON 301; 60 credit hours.

ECON 428-3 [Seminar in Behavioral and Applied Economics]
This is a research course covering topics in experimental economics, tests and economic behavior, and issues in applied economics. Experimental economic methods, results, and their implications for economic analyses will be reviewed. Individual projects will be designed and carried out by participants. Prerequisite: ECON 301 and 305, 60 credit hours; or permission of the department.

ECON 431-5 [Intermediate Mathematical Economics]
The application of input-output studies, linear programming and the theory of games to economic analysis. Dynamic models, general equilibrium models and the mathematics of marginal analysis. Prerequisite: ECON 301 and 305; MATH 232 or ECON 331; 60 credit hours.

ECON 435-5 [Econometric Methods]
The application of econometric techniques to the empirical investigation of economic issues. Prerequisite: ECON 301 and 305; BUEC 333; 60 credit hours.

ECON 443-3 [Seminar in International Trade]
Focus will vary from semester to semester. Prerequisite: ECON 301, 305 and 342; or permission of the department; 60 credit hours.

ECON 446-3 [Seminar in International Finance]
Focus will vary from semester to semester. Prerequisite: ECON 301, 305 and 342, or permission of the department; 60 credit hours.

ECON 450-3 [Seminar in Quantitative Economic History]
Focus will vary from semester to semester. Prerequisite: ECON 301 and 305.

ECON 451-3 [Seminar in European Economic History]
A detailed examination of the major issues in European economic history. Prerequisite: ECON 301 and 305; 60 credit hours. Students with credit for ECON 351 may not take ECON 451 for further credit.

ECON 455-3 [Seminar in Economic Development]
Topics in economic development. Prerequisite: ECON 305 and 355, and 60 credit hours.

ECON 459-3 [Seminar in Economic Demography]
Analysis of the economic forces that affect key population variables such as mortality, natality and migration. Prerequisite: ECON 301 and 305; 60 credit hours.

ECON 460-3 [Seminar in Environmental Economics]
Focus will vary from semester to semester. Prerequisite: ECON 301, 305; 60 credit hours.

ECON 468-3 [Seminar in Regional Economic Development]
Examination of the regional disparity problem, with particular reference to the Canadian situation, its causes and policy remedies. Analysis of migration, capital, and trade flows between regions. Economic effects of the policies and institutions of Canadian federalism. Prerequisite: ECON 303 or 200 and 105 or 205; ECON 368; 60 credit hours.

ECON 478-0 [Economics Practicum V]
This is an optional semester of work experience in the Economics Co-operative Education Program. Prerequisite: ECON 301, 305, one 400 division course and 90 credit hours and a CGPA of 2.75. Students should apply to the Faculty of Arts and Social Sciences co-op co-ordinator by the third week of the preceding semester.
ECON 480-3 Seminar in the Economics of Labor Market Policy
Seminar focusing on public policy as it relates to employment and income security. Special emphasis will vary from term to term, but may include such topics as examinations of current manpower, welfare and public insurance programs, labor legislation, and private institutional practices (such as union-management pension arrangements) that may affect income security. Prerequisite: BUEC 333 and ECON 381.

ECON 482-3 Selected Topics in Economics
The subject matter will vary from semester to semester depending upon the interests of faculty and students. (seminar) Prerequisite: ECON 301 and 305; 60 credit hours.

ECON 483-3 Selected Topics in Economics
The subject matter will vary from semester to semester depending upon the interests of faculty and students. (seminar) Prerequisite: ECON 301 and 305; 60 credit hours.

ECON 484-3 Selected Topics in Economics
The subject matter will vary from semester to semester depending upon the interests of faculty and students. (seminar) Prerequisite: ECON 301 and 305; 60 credit hours.

ECON 490-3 Seminar in Public Choice
The application of economic theory to political market place. Topics may include the economics of constitutions, voting, democracy, bureaucracy, rent-seeking, and redistribution. Prerequisite: ECON 301 and 305; 60 credit hours.

ECON 492-3 Seminar in Public Economics
This seminar course considers topics such as the potential role for government through an analysis of distributive issues, public goods, externalities, non-competitive market structures, and asymmetric information. It may also include topics like the incentive effects of taxation, tax incidence, tax evasion and topics in fiscal federalism. Prerequisite: ECON 392 or 395.

ECON 498-3 Directed Studies
Independent reading and research on topics selected in consultation with the supervising instructor. This course may not be repeated for additional credits. Prerequisite: ECON 301 and 305 and permission of the undergraduate chair of the department; 60 credit hours.

ECON 499-3 Honors Seminar in Economics
The purpose of this course is to permit the student to expand and develop a paper that has been prepared for a previous course into an honors paper. Prerequisite: ECON 301, 305; one additional 400 level course in Economics, minimum CGPA of 3.0. Pre-requisites and co-requisites: 301 and 305.

ECON 750-0 Practicum I
First semester of work experience in the Co-operative Education Program. Prerequisite: completion of core MA degree requirements of ECON 802, 807 (or 808), 835, and 836 with a minimum GPA of 3.0.

ECON 751-0 Practicum II
Second semester of work experience in the Co-operative Education Program. Prerequisite: ECON 750.

ECON 752-0 Practicum III
Third semester of work experience in the Co-operative Education Program. Prerequisite: ECON 751 and department approval.

ECON 798-4 Introduction to Mathematical Economics
Applications of static optimization techniques, matrix algebra, differential and difference equations in economic models. Prerequisite: ECON 802-4 Microeconomic Theory 1
An examination of the economic theory of market prices with reference to behavior of individual households, firms, and markets. Special emphasis will be placed on the implications of individual behavior for the allocation of resources. Prerequisite: ECON 331. Offered once a year.

ECON 803-4 Microeconomic Theory II
The course subsequent to ECON 802 which covers advanced Microeconomic theory on a dynamic and general equilibrium basis. Prerequisite: ECON 802. Offered once a year.

ECON 804-4 Advanced Topics in Microeconomic Theory
The course following ECON 802 and 803 which covers such topics as equilibrium theory, axiomatic analysis, stability analysis, income distribution, dynamic micro models, and models of non-market economics. Prerequisite: ECON 802 and 803 or equivalent.

ECON 807-4 Macroeconomic Theory and Policy
An examination of basic macroeconomic theory, empirical macroeconomic data and models, macroeconomic analysis, and application to economic developments and policy issues. Prerequisite: ECON 798 or equivalent. Offered once a year.

ECON 808-4 Macroeconomic Theory
An analysis of current theories of aggregate economic behavior. Topics covered in this course may include long-run growth, dynamic general equilibrum models, and business cycle analysis. Prerequisite: ECON 798 and 403 (or equivalent). Students who have taken ECON 805 cannot take ECON 808 for further credit. Offered once a year.

ECON 809-4 Advanced Macroeconomic Theory
This course covers advanced macroeconomic theory topics. Emphasis will be placed on current research techniques. Topics covered may include: capital and growth theory, real business cycle models, models of flat money, asset pricing models, endogenous growth models, development traps, macroeconomic complementarities, co-ordination failures, and adaptive behavior in macroeconomic models. Prerequisite: ECON 808. Students who have taken ECON 806 cannot take 809 for further credit.

ECON 810-4 Monetary Theory
An examination of theories of the supply and demand for money in micro- and macro-contexts, from the classical analysis to the most recent developments. Emphasis will be placed upon the role of money in economic activity, the precise nature of its demand and supply conditions, and policy-implications of theoretical conclusions with regard to money. Prerequisite: ECON 808.

ECON 811-4 Advanced Monetary Theory
Selected topics in monetary theory and policy. Prerequisite: ECON 810-4.

ECON 815-4 Portfolio Theory
A study of optimum portfolio selections and diversification of financial assets including cash vis-a-vis different classes of utility functions of final wealth. Also, an examination of the behavior of speculative prices and rates of return. Prerequisite: ECON 331. Offered once a year. This is the same course as BUS 815.

ECON 817-4 Theory of Capital Markets
A study of capital market equilibrium theories, risk allocation, valuation models under perfect and imperfect markets and their empirical testing. Prerequisite: ECON 311, 835. Offered once a year. This is the same course as BUS 817.

ECON 818-4 Advanced Topics in Business Finance
Extensions of advanced topics beyond those covered in BUEC 815 and 817. Prerequisite: BUEC 815, 817. This is the same course as BUS 818.

ECON 825-4 Industrial Organization
A presentation and critical examination of the industrial organization models; includes a review of mainstream and current theoretical literature, and important empirical work in the field. Prerequisite: ECON 802.

ECON 826-4 Industrial Organization II
This course examines topics specific to the theory of the firm. Classes will focus on theories of transaction cost, principal-agency, and the theory of contracts. Particular attention will be given to the strategic interaction of the agents.

ECON 828-4 Experimental Economics
The course will deal with experimental methodology and design. A number of topics will be covered in the three main areas of experimental economics: markets, games and strategic interaction, and individual decision-making. Students will be expected to design and conduct their own experiments under the supervision of the instructor.

ECON 831-4 Mathematical Economics
Various equilibrium models of micro and macro theory will be examined with emphasis on their solution, stability conditions and the uniqueness of solutions. Prerequisite: ECON 331.

ECON 832-4 Computational Methods in Economics
The first part of the course will focus on dynamic optimization problems, with an emphasis on dynamic programming. Applications may include growth, business cycles, monetary and fiscal policy, and optimal contracts. The second part of the course will focus on models of learning and bounded rationality. Genetic and stochastic approximation algorithms will be studied. Applications may include the stability of rational expectations equilibria, the evolution of institutions and social conventions, and models of robust control and Knightian uncertainty. Prerequisite: ECON 802, 807 or 808, or with the approval of the instructor.

ECON 835-4 Quantitative Methods
An introduction to econometric theory. Application of econometric methods to both time series and cross-section data. Prerequisite: BUEC 333 and ECON 331. Offered once a year.

ECON 836-4 Applied Econometrics
A ‘hands-on’ course in implementing econometric techniques for empirical investigation of economic issues. Prerequisite: ECON 835 or equivalent.

ECON 837-4 Econometric Theory
The theory of the general linear model and the implications of basic econometric problems such as multicollinearity, autocorrelated residuals, errors in variables and heteroskedasticity. The use of dummy variables and lagged variables, simultaneous equation models. The identification problem. Estimation of over-identified equations. Prerequisite: ECON 835. Offered once a year.

ECON 838-4 Topics in Econometrics
The content of this course will depend on the interests of the students. Surveys of current literature and independent study will form the basis of the course. Prerequisite: ECON 837.

ECON 840-4 Theory of International Trade
The analytical course dealing with the pure theory of international trade. The motivation of supply and demand in international trade, the dynamic basis of trade, the role of the price mechanism and of income
changes in international trade. Specific problems may be considered, such as the theoretical case for free and multilateral trade, and the theory of customs unions.

ECON 842-4 International Monetary Economics
Balance of payments theory, foreign exchange theory, and adjustment processes. A range of applied problems will be dealt with such as the operation of exchange rates, analysis of exchange rate systems, exchange controls, and the processes of short and long term capital movements in international trade.

ECON 843-4 Current Problems in International Trade
Detailed studies of a limited number of international economic problems. The selection of topics will depend to some extent upon the expressed interests of the students.

ECON 850-4 Methodology and Sources in Economic History
A close examination of the work and methodology of leading economic historians. Study of methodology of selected works in economic history, with special emphasis on the identification of implicit theories and assumptions. Application of quantitative approaches and economic theory to selected problems. Independent work.

ECON 851-4 Economic History of Europe
An examination of theories and controversies from the transition from feudalism to capitalism. Comparative study of the emergence and subsequent evolution of industrialization. How economic institutions affect the character and pace of economic development. Regional disparities and economic growth in given countries. Relationship between economic growth and international expansion. Examination of declining sectors, stagnation, institutional changes in the 20th century.

ECON 853-4 Economic History of North America
Effects of the North Atlantic economy on the pace and character of Canadian and American economic development. The role of staple exports and the linkages to manufacturing and transportation developments. Canadian national policy, with emphasis on regional effects, internal consistency and comparison to similar policies in the United States. Factors for growth and cyclical changes in the 20th century. In all the above areas, an attempt will be made to apply quantitative techniques of the new economic history to the problems of economic change.

ECON 854-4 Theories of Economic Development
Characterization of non-growing economies; mechanics of the process of economic development; the role of economic and non-economic factors; structural transformation in economic development.

ECON 856-4 Theories of Economic Growth
Equilibrium analysis and economic growth; determinants of growth; steady state and steady growth; technical progress and equilibrium growth. Prerequisite: ECON 808.

ECON 857-4 Studies in Economic Development
Examination of the characteristics of a given underdeveloped economy; allocation of resources and factor strategies; historical or contemporary comparisons of public policy and development.

ECON 859-4 Population Economics

ECON 860-4 Environmental Economics
The analysis of the role of the natural environment in economic system. All economic activity creates waste products (pollution) which must be disposed of back into the natural environment. The socially efficient amount of waste generation and disposal is determined and methods of reaching this level evaluated. This involves the theoretical and empirical determination of the costs and benefits of waste generation and a thorough discussion of the role of government policies: taxes, standards, tradeable emission permits versus private market initiatives (bargaining and green goods) under a variety of assumptions about the economic system.

ECON 861-4 Natural Resource Economics
Basic issues of intertemporal valuations. The economic theory of natural resource management for non-renewable resources, fisheries and forests. The effects of market structure and taxation on intertemporal supply patterns will be considered.

ECON 863-4 Fisheries Economics
Theoretical analysis of fisheries exploitation, emphasizing the characteristics of a common property resource and the economic expression of biological factors. Problems of productivity against the background of national fisheries regulations and international agreements in respect of the fisheries, with their social and economic implications.

ECON 864-4 Studies in Economic Fisheries Management
Analysis of economic fisheries management techniques derived from the study of a variety of actual fisheries management projects. Prerequisite: ECON 863, or permission of the instructor.

ECON 865-4 Regional Economic Theory
The theoretical aspects of regional economics, particularly the following topics: the concept of a region, location theory, theories of regional economic growth, and techniques for regional analysis. Prerequisite: ECON 331 recommended.

ECON 867-4 Regional Development Problems
An applied course in regional economics. Topics include the following: concepts of regional planning, development planning techniques, study of Canadian regional development problems. Prerequisite: ECON 865.

ECON 869-4 Transportation Economics
Emphasis on costs, demand and pricing of transportation services. Additional topics to be studied include government promotion of transport, transport regulation and the economic effects of transportation improvements. Recommended: ECON 331.

ECON 877-4 Methodology in Economic Theory
Topics to be discussed include theories of rationality; social theories involved in the economic concept of equilibrium; the role and status of economic theories and models; methodology versus sociology of economics; theories of economic knowledge; realism of assumptions and value premises in economics.

ECON 878-4 History of Economic Thought
Prior to 1870
The origins and development of economic thought from early times until 1870 with special emphasis on mercantilist, physiocratic, classical, Malthusian and socialist doctrines.

ECON 879-4 History of Economic Thought
Since 1870
The development of economic thought since 1870 will be examined with special emphasis on the evolution of marginal utility theory, general and partial equilibrium analysis, business cycle theories, Keynesian and post-Keynesian economics.

ECON 881-4 Labor Economics
Theoretical analysis of labor in the context of a national resource. Critical examination of the aspects of quantity, quality, allocation and utilization of human resources. Topics given particular attention include labor force participation, structural employment, human capital, incomes policies and the concept of an active manpower policy. Prerequisite: ECON 835.

ECON 886-4 Industrial Relations

ECON 888-4 The Economics of Legal Relationships
An analysis of the economic effects of constraints imposed by common, statute and constitutional law. Topics will include: transaction cost, common property, regulation, negligence and torts, ‘free’ goods, price controls, non-renewable resources, crime and malfeasance, custom, nature of the firm under various legal guises and the anarchy state dichotomy.

ECON 889-4 Seminar in Law and Economics
An enquiry into the resource allocational and distributional implications of current and alternative legal arrangements. The economic rationale for and effects of the development of various legal doctrines will be considered. Topics may include anti-competitive legislation, compensation and public regulation, and market regulation for purposes of safety, consumer information and income maintenance of producers.

ECON 890-4 Public Economics: Expenditure
The study of the role of the public sector in a market economy. Topics may include social choice, issues of inequality, public goods, externals, asymmetric information, and political economy.

ECON 891-4 The Economics of Public Choice
A practical economic analysis of the theory of non-market, political choice. Some of the topics studied will be coalition formation and rational voter behavior; allocations under various property rights systems; optimal constitutions; public sector internalities; federalism; discrimination, nationalism and crime.

ECON 892-4 Public Economics: Taxation
The study of the public economics of taxation including income taxation, commodity taxation, and capital taxation. The focus is on the efficiency and distributional aspects of taxation which include the incentive effects of taxation, tax incidence, tax evasion, tax competition, and fiscal federalism.

ECON 893-4 Introduction to Marxian Economics
Examination of Marx’s economic theory, with particular emphasis on capital, theories of surplus value and the Grundrisse.

ECON 895-4 Comparative Economic Systems
Comparative study of capitalist, communist, socialist and mixed forms of national economic organization, with emphasis on the allocation of resources and distribution of income.

ECON 900-0 PhD Field Paper
In the semester following the completion of a PhD student’s theoretical, comprehensive exams, the student will enrol in this course. In consultations between the student, the graduate chair, and faculty, the student will be assigned a supervisor for the course. During the semester, the student will write a paper in their field of interest. A satisfactory completion of the course is through the presentation of the paper as
an economics department thesis proposal seminar. Graded as satisfactory or unsatisfactory.

ECON 911-4 Selected Topics in Economics
Offered by arrangement.

ECON 912-4 Selected Topics in Economics
Offered by arrangement.

ECON 913-4 Selected Topics in Economics
Offered by arrangement.

ECON 921-4 Directed Readings
Supervised reading in a particular field of specialization. Offered by arrangement.

ECON 922-4 Directed Readings
Supervised reading in a particular field of specialization. Offered by arrangement.

ECON 923-4 Directed Readings
Supervised reading in a particular field of specialization. Offered by arrangement.

ECON 990-6 PhD Thesis
ECON 991-6 MA Thesis
ECON 997-6 MA Exam
Prerequisite: ECON 802, 807 or 808, and 836 and significant written work in one or more MA courses (e.g., A term paper).

ECON 998-6 MA Essays
ECON 999-6 MA Project

Education

EDUC 100-3 Selected Questions and Issues in Education
This course introduces students to a small but representative sample of basic questions and issues in education. Students will examine questions relating to: the concept or idea of education; learning and the learner; teaching and the teacher; and more generally, the broader contexts of education. This course also introduces students to different ways of exploring educational questions and issues — from philosophical and critical analysis, to historical and cross-cultural studies, to empirical research. Cannot be taken for credit by students with credit for 300 and 400 level education courses.

EDUC 211-3 Mathematical Experience I: Numbers and Beyond
Utility and aesthetics of mathematical experience is presented through the exploration of selected topics. Prerequisite: Students who have credit for MATH 151, MATH 154, MATH 157 need special permission to participate in EDUC 211 and EDUC 212.

EDUC 212-3 Mathematical Experience II: Shape and Space
Utility and aesthetics of mathematical experience is presented through the exploration of selected topics. Prerequisite: Students who have credit for MATH 151, MATH 154, MATH 157 need special permission to participate in EDUC 211 and EDUC 212.

EDUC 220-3 Introduction to Educational Psychology
A survey of educational research and theories concerning motivation, learning, development, and individual differences in classroom settings. May be applied towards the certificate in liberal arts.

EDUC 222-3 Research Methods in Educational Psychology
An introductory survey of research methods used in developing and testing theories in educational psychology. Illustrations are drawn from published research in educational psychology. Corequisite: EDUC 220-3.

EDUC 230-3 Introduction to Philosophy of Education
This course provides prospective teachers and others interested in education an opportunity to examine a variety of educational problems from a philosophical perspective. The central concern of the course is to elucidate the nature of education as a phenomenon distinct from such activities as training, schooling, and socialization. May be applied towards the certificate in liberal arts.

EDUC 240-3 Social Issues in Education
Social functions of the school; education and socialization; social, political, economic and cultural influences on the institutions and practices of education. May be applied towards the certificate in liberal arts.

EDUC 250-3 Studies in the History of Education in the Western World
This course will consist of a study of major trends in educational practice from antiquity to the present. May be applied towards the certificate in liberal arts.

EDUC 252-4 Introduction to Reflective Practice
Provides opportunities for prospective teachers to begin their development as reflective practitioners. Through readings, classroom activities and discussions, and interactions with students and practicing teachers, students will be exposed to various educational issues and questions. They will be given time to explore their own values and beliefs about education and teaching. Time will be spent observing in a selection of local schools, and there will be opportunities to work with children individually, and in small and large groups. Students with credit for EDUC 401 or holding a teaching certificate may not take this course for credit.

EDUC 260-3 Learning and Teaching through Technology
Provides a practical and theoretical exploration of technology use in K-12 classroom settings. Introduces current technologies that potentially impact student learning as well as a variety of issues and problems surrounding the use of learning technologies in schools. Also offers opportunities to explore technology-based innovations not yet broadly used in schools. Prerequisite EDUC 220.

EDUC 298 Special Topics
Courses will explore issues of current concern. Subjects to be taught and the exact assignment of credit (2 or 3) will be announced prior to the beginning of each semester. Course may be on a pass/fail basis. Variable credit hours: 2-3. A maximum of 12 credit hours in education special topics courses may be used towards a bachelor of education degree.

EDUC 299 Special Topics
Courses will explore issues of current concern. Subjects to be taught and the exact assignment of credit (2 or 3) will be announced prior to the beginning of each semester. Course may be on a pass/fail basis. Variable credit hours: 2-3. A maximum of 12 credit hours in education special topics courses may be used towards a bachelor of education degree.

EDUC 311-3 Foundations in Aboriginal Education, Language, and Culture
An introduction to Aboriginal education in Canada and BC. There will be a critical examination of historical and contemporary issues in education and an exploration of culturally based Aboriginal education grounded in Aboriginal philosophies. Prerequisite: 60 credit hours.

EDUC 315-3 Individual and Developmental Differences in Language Acquisition
A review of theories of language acquisition and their relationship to child communication disorders. Topics include: theories of language acquisition; individual and developmental differences in language acquisition; language structure and use in children with diverse disabilities, autism spectrum disorder, sensory disabilities and emotional and behavioral disabilities, interdisciplinary approaches to early intervention in the home, school and community. Prerequisite: EDUC 220 or PSYC 250.

EDUC 320-3 Instructional Psychology
This course examines theories of instruction and research about learning, motivation, individual differences, and social environments as foundations for designing instruction. Topics include: models of cognition; models of motivation and beliefs; metacognition, self-regulated learning, and learning skills; problem solving and transfer; cognitive processing models of instruction in mathematics, science, social studies, reading and composition. Prerequisite: EDUC 220.

EDUC 322-3 The Social Lives of School Children
An overview of theory, research and practice concerning social emotional development and social interactions and relations context. Emphasis on the role of peer relationships in development and the role of the school in supporting positive interactions. Prerequisite: EDUC 220 or PSYC 250.

EDUC 323-3 Introduction to Counselling Theories
Survey of theories underlying counsellor and teacher interventions aimed at promoting emotional growth, development and personal change. Examination of theories and their sociological, cultural and philosophical contexts. Exploration of links between frequently used interventions and the implicit theories underlying these strategies. Students who have credit for EDUC 425 cannot take EDUC 323 for further credit. Prerequisite: EDUC 220 or equivalent, and 60 credit hours.

EDUC 325-3 Assessment for Classroom Teaching
A survey of assessment methods that contribute to improving teaching and learning, and for making judgements and decisions about qualities of teaching, the classroom environment, and student achievement and growth. Topics include: goal and task analysis, validity and reliability, observing and assessing classroom processes and environments, self-report methods, assessing student achievement, published tests of achievement and aptitude, marking and reporting. Prerequisite: EDUC 220.

EDUC 326-3 Classroom Management and Discipline
An examination of contemporary approaches to classroom management and discipline, including a consideration of legal, organizational and administrative issues. The major goal of the course is to enable students to comprehend the basic principles and tenets of a number of management approaches and to translate these principles into specific teaching strategies and the student achievement. Prerequisite: EDUC 401/2 or one of EDUC 100, 220, 230, 240.

EDUC 327-3 Self, Psychology and Education
A critical examination of theoretical and empirical programs of inquiry in educational psychology that are concerned with the self (e.g., self-esteem, self-concept, self-directed or self-regulated learning). Students will participate in a wide-ranging seminar that considers topics such as the relationship between personal and social being, historical perspectives on the self, the formation of social identity, the roles of memory, imagination, and narrative selfhood, the development of agency and self, and education and personhood. Prerequisite: 60 hours of credit, including one of EDUC 220, 230, 240 or 250.

EDUC 328-3 Career Education and Career Counselling
An introduction to theories of career choice, adjustment and development. Emphasis on critical evaluation of established theories that are influential.
in the development of career education curricula and in the practice of career counselling. Prerequisite: EDUC 220 or 401/402.

EDUC 330-3 Movement Language Elements for Dance in Education
In this experiential course students will develop an understanding of the movement concepts (action, space, time, force, relationship) which are the framework for making and teaching dance. This course will explore dance as a non-verbal expressive language, and introduce students to a variety of aspects of dance within the curriculum. Previous dance training is not required. Prerequisite: 60 credit hours including six hours in EDUC courses.

EDUC 339-0 Practicum 1
First semester of work experience for the Faculty of Education Co-Operative Education Program. Provides opportunity to integrate theory and practice. This course is open only to co-op students. The co-op coordinator must be contacted at the beginning of the semester prior to registration for this course.

EDUC 341-3 Literacy, Education and Culture
An introduction to the study of literacy from an interdisciplinary perspective, one which explores the role of literacy in social development, the economic and cultural values of literacy, and the effects of literacy on cognitive processes. The particular concern of this course is with the formal transmission of literacy in educational institutions. The course will especially address the varying conceptions of literacy that educators have traditionally valued, and the research that aims to explain, justify, and prescribe educational practices intended to increase literacy. This course is required for the certificate in literacy instruction. Prerequisite: 60 hours of credit.

EDUC 349-0 Practicum II
Second semester of work experience for the Faculty of Education Co-operative Education Program. Provides opportunity to integrate theory and practice. This course is open only to co-op students. The co-op coordinator must be contacted at the beginning of the semester prior to registration for this course.

EDUC 351-3 Teaching the Older Adult
This is a basic course in adult education for students from all disciplines, of particular interest to those working (or preparing to work) with older adults. The goal is to assist students to develop more effective strategies for meeting the needs of an aging population through education. Prerequisite: 60 credit hours.

EDUC 352-4 Building on Reflective Practice Building on the experience of EDUC 252, prospective teachers will continue to develop their reflective practice. Various educational issues related to the caring for children and the creation of learning communities will be explored. Prospective teachers will spend time in classrooms exploring the importance of connected learning experiences for children. Students with credit for EDUC 401 or holding a teaching certificate may not take this course for credit. Prerequisite: EDUC 252.

EDUC 355-4 Theatre in an Educational Context
This course deals with teaching theatre in an educational context. It will develop knowledge of theatre skills, and introduce students to a variety of approaches and techniques for teaching theatre and doing theatre in the schools. Prerequisite: 60 credit hours.

EDUC 359-3 Foundations of Educational Technology
A survey of major traditions of research and development in educational technology, including the arguments and assumptions they make about what constitutes a valuable educational outcome. Focus on analyzing and understanding educational technologies as cultural tools that are both shaped by and in turn shape teaching and learning in K-12 schools. Prerequisite: EDUC 260.

EDUC 367-4 Teaching Children from Minority Language Backgrounds in Elementary Classrooms
This course is intended for prospective or practicing elementary school teachers who are interested in enhancing educational practice for children of minority language backgrounds (those often labelled as ESL students) within the context of their mainstream classroom. Participants will consider theory and research in second language learning, examine recommendations for classroom practice and develop plans for practice relevant to their own educational milieu. Prerequisite: 60 hours of credit.

EDUC 370-4 International and Intercultural Education
Practical and theoretical approaches to international and intercultural education, including examinations of the relationships between culture, learning and schooling, and contemporary issues in teacher education from an international perspective. Prerequisite: Completion of at least 60 credits, including 3 credits in Education.

EDUC 371—381 Special Topics
Course will explore major issues of present concern. Subjects to be taught and the exact assignment of credit (2, 3, 4 or 6) and prerequisites will be announced prior to the beginning of each semester. Course may be given on a pass/fail basis. A maximum of 12 credit hours in Education Special Topics courses may be used toward a bachelor of education degree. Variable credit hours: 2, 3, 4, 6.

EDUC 382-4 Diversity in Education: Theories, Policies, Practices
An examination of the impact of social diversity on schooling in Canada exploring contemporary issues and perspectives on diversity education as they relate to cultural, ethnic, racial, linguistic, religious, economic, and gender differences. Prerequisite: 60 hours of credit. Students who have received credit for EDUC 441, EDUC 382-4 Special Topics from Fall 2003-3 on, cannot take EDUC 382 for further credit.

EDUC 383—399 Special Topics
Course will explore major issues of present concern. Subjects to be taught and the exact assignment of credit (2, 3, 4 or 6) and prerequisites will be announced prior to the beginning of each semester. Course may be given on a pass/fail basis. A maximum of 12 credit hours in Education Special Topics courses may be used toward a bachelor of education degree. Variable credit hours: 2, 3, 4, 6.

EDUC 401-8 Introduction to Classroom Teaching
A half semester of observation and experience in a BC school during which two students work as a team with a teacher selected by school authorities and appointed by Simon Fraser University as a school associate. Students observe, teach and participate in school routines and programs. Grading is on a pass/withdrawal basis. (Not offered in summer semester.)

EDUC 402-7 Studies of Educational Theory and Practice
A half semester of study which provides students with workshops, seminars, and lectures designed to introduce them to basic curriculum and methods appropriate for the age group level in which they expect to teach. Students will also be given an introduction to generic teaching skills, as well as to current issues in educational theory and practice. Grading is on a pass/withdraw basis. (Not offered in summer semester.) Corequisite: EDUC 401

EDUC 404-0 Coursework Semester
Students undertake 15 upper division credits of studies in Education to complete the professional development program requirements. Prerequisite: EDUC 401/402.

EDUC 405-15 Teaching Semester
A full semester of classroom experience supervised by University appointed school associates. The school placement is appropriate to the grade level and subject specialties which the student expects to teach after graduation. Grading is on a pass/withdraw basis. (Not offered in summer semester.) Prerequisite: EDUC 401/402.

EDUC 406-12 Supervised Observation and Teaching
Education 406 is designed for those who need to meet BC certification requirements. It is a supervised orientation/observation/teaching sequence of approximately ten weeks, in a BC public school. This practicum is designed as an opportunity to familiarize and explore various school systems and update their teaching skills. Prerequisite: permission will not be given to students without previous teaching experience. Grading will be on a pass/withdrawal basis. Students with credit for EDUC 407 may not take EDUC 406. EDUC 406 is not applicable toward the credit requirements for a degree or diploma, i.e. not counted in total credits.

EDUC 411-3 Investigations in Mathematics for Secondary Teachers
Students examine secondary mathematics from an advanced standpoint, focusing on various topics, investigating connections among various topics and representations, and situating secondary mathematics in a broader context, both mathematical and historical. Corequisite: EDUC 415 or appropriate math background and permission of instructor.

EDUC 412-4 Designs for Learning: Secondary Language Arts
Focuses on teaching secondary language arts and addresses aspects of the theory and practice of language arts education. Students examine their own thinking about language arts education through critical reflection, work with the prescribed curriculum, and explore various ways to develop engaging learning experiences for young adults within a consistent framework using appropriate instructional materials and methods. Prerequisite: EDUC 401/402. Students who have credit for EDUC 472 prior to the 2001-2 semester cannot take EDUC 412 for further credit.

EDUC 414-4 Designs for Learning: Secondary Social Studies
Focuses on teaching secondary social studies and addresses aspects of the theory and practice of social studies education. Students examine their own thinking about social studies education through critical reflection, work with the prescribed curriculum, and explore various ways to develop engaging learning experiences for young adults within a consistent framework using appropriate instructional materials and methods. Prerequisite: EDUC 401/402. Students who have credit for EDUC 474 cannot take EDUC 414 for further credit.

EDUC 415-4 Designs for Learning: Secondary Mathematics
Focuses on teaching secondary school mathematics. Students explore mathematical learning, their own mathematical thinking and curriculum; and plan mathematical instruction within a consistent framework using appropriate instructional materials and methods. Prerequisite: EDUC 401/402. Students who have credit for EDUC 475 prior to the 2001-2 semester cannot take EDUC 415 for further credit.

EDUC 416-4 Designs for Learning: Secondary Science
Focuses on teaching secondary school science. Students explore the sciences and aspects of learning science; examine their own scientific
thinking; work with the prescribed curriculum; and plan science learning experiences within a consistent framework using appropriate instructional materials and methods. Prerequisite: EDUC 401/402. Students who have previously received EDUC 476 prior to the 2001-2 semester cannot take EDUC 416 for further credit.

EDUC 422-4 Learning Disabilities
A study of conceptual and historic foundations of learning disabilities and an introduction to the methodologies of diagnosis and of learning disabilities. Prerequisite: EDUC 315 or PSYC 250.

EDUC 423-4 Helping Relationships
Introduction to the rationale for and the practice of basic counselling skills. Emphasis on the development of counselling skills as a means of establishing effective helping relationships in educational settings. Prerequisite or Corequisite: EDUC 353.

EDUC 424-4 Learning Disabilities: Laboratory
Supervised experience in analysis and evaluation of treatment strategies to be used with classroom students having learning disabilities. Prerequisite or corequisite: EDUC 422.

EDUC 426-4 Teaching Children and Youth with Special Needs
An introduction to the field of special education including studies of the definitional criteria and characteristics of major categories of special need, and the distinctive instructional challenges associated with these categories. The course focuses on the special learning needs of school age students, both elementary and secondary school levels, and emphasizes both the analysis of issues and treatment needs across the array of special needs. Prerequisite: 60 hours of credit.

EDUC 427-4 Seminar in Teaching Children with High-Incidence Disabilities
A review of classroom teaching practices that support learning for children with high-incidence disabilities (e.g., learning disabilities, Attention Deficit Disorder, mild intellectual disabilities, moderate behavior disorders). Topics include: introduction to inclusive teaching, collaboration partnerships and procedures, teaching students with high-incidence disabilities, developing effective teaching skills, improving classroom behavior and social skills, promoting inclusion with peers, enhancing motivation and affect, assessment and teaching in the content areas. Prerequisite: EDUC 422 and either 401/402 or permission of the instructor for students with experience working with children with high-incidence disabilities.

EDUC 428-4 Nature and Nurture of Gifted Students
Concepts and practices related to the nature and nurture of the potential for giftedness in educational settings will be introduced. Theoretical and historical foundations of common practices in gifted education will be covered. Grading will be on a pass/fail basis. Prerequisite: EDUC 220 or PSYC 250 or PSYC 302 and EDUC 401/402.

EDUC 430-4 Designs for Learning: Dance
This course is for students and teachers with some movement and dance experience who are planning to teach dance in school or recreational settings. Students will continue experiential and theoretical explorations of movement language framework concepts with increasing emphasis on expressive, formal and critical aspects of dance and movement education. Prerequisite: EDUC 401/402.

EDUC 433-4 Philosophical Issues in Curriculum
Examines fundamental philosophical issues involved in designing, evaluating, or changing educational curricula. Such issues as the nature and justification of educational curriculum, the components of a rational curriculum, the nature of knowledge and its differentiation, curriculum integration and the education of the emotions. Also deals with such current issues as the place of behavioral objectives in education, the hidden curriculum and the sociology of knowledge. Prerequisite: 60 credit hours including 6 hours in EDUC courses or EDUC 401/402.

EDUC 435-4 Infusing Global Perspectives into Curriculum
An examination of the rationale for and concepts of global education including its content, methods and skills objectives, and its place in existing provincial curricula. Prerequisite/Corequisite: EDUC 370

EDUC 437-4 Ethical Issues in Education
Ethical problems in education are identified and examined. Four major areas of concern are explored: 1. the normative character of education as a whole; 2. the justification of education; 3. ethical questions related to equality, autonomy, interpersonal relationships, and rights in education; 4. moral education and values education. Prerequisite: EDUC 230 or EDUC 401/402 or permission of the instructor.

EDUC 439-0 Practicum III
Third semester of work experience for the Faculty of Education Co-operative Education Program. Provides opportunity to integrate theory and practice. This course is open only to co-op students. The co-op coordinator must be contacted at the beginning of the semester prior to registration for this course.

EDUC 441-4 Multicultural and Anti-Racist Education
Focuses on developing approaches for multicultural and anti-racist teaching. Topics include: diversity of race, language and culture among learners; identifying the operation of racism, prejudice and discrimination in classrooms and schools; becoming familiar with a variety of approaches such as: co-operative learning, culturally appropriate assessment, and community involvement to counteract and prevent negative classroom and school dynamics; identifying bias in curriculum resources; and locating entry points in selected curriculum areas (e.g. language arts, social studies, art, music, etc.) for integrating approaches which employ a range of multicultural/anti-racist curriculum resources. Prerequisite: EDUC 240 or SA 333, and EDUC 401/402.

EDUC 445-4 Legal Context of Teaching
This course is designed to provide education students, teachers, counsellors and school administrators with a comprehensive understanding of the legal issues and potential legal liabilities encountered in the BC public school system. Special attention is devoted to the legal dimensions and consequences of routine classroom and administrative activity. Topics include: sexual abuse by school board employees; negligence and supervision; private lifestyles and community standards; discipline and corporal punishment; sexual harassment in the workplace; responsibility for curriculum fulfillment; liability outside school hours; and the AIDS controversy. Prerequisite: 60 hours of credit including 6 hours in Education courses.

EDUC 446-4 Law for the Classroom Teacher
The course provides teachers with the necessary background understanding of the law and legal practices required to teach the law-related dimensions of the BC curricula. The major focus will be on the areas of law, and legal concepts and procedures included in the secondary social studies and law 12 curricula. Prerequisite: 60 hours of credit including 6 hours in Education courses.

EDUC 448-4 Law in the Curriculum
The justification and practice of law-related education in the K-12 curriculum are the subjects of this methodology course. Students will examine the place of law in the curriculum, existing resources and appropriate teaching strategies and will have the opportunity to develop unit plans and curriculum materials. Emphasis is on developing and implementing law-related units in the classroom. Prerequisite: EDUC 401/402 or EDUC 446.

EDUC 449-0 Practicum IV
Fourth semester of work experience for the Faculty of Education Co-operative Education Program. Provides opportunity to integrate theory and practice. This course is open only to co-op students. The co-op coordinator must be contacted at the beginning of the semester prior to registration for this course.

EDUC 450-4 Classroom French Curriculum Studies
This course is intended for students who would like to gain a broader view of the French second language teacher profession while improving their knowledge of the language and culture in a classroom context. The general objective of this course is to help prospective French teachers to better understand the pedagogical relevance of and the relationship between cultural competence and communicative competence. Prerequisite: When the course is offered in French, 60 hours of credit and 12 credits of French or equivalent. When the course is offered in English, 60 hours of credit.

EDUC 451-4 Classroom French Curriculum Practices
The general objective of this course is to help prospective and practicing French teachers better understand the pedagogical and cultural relevance of a variety of French language registers and of their significance to second language teaching. Prerequisite: When the course is offered in French, 60 hours of credit and 12 credits of French or equivalent. When the course is offered in English, 60 hours of credit.

EDUC 452-4 Environmental Education
This course will examine the educational problems entailed in developing human awareness and understanding of the environment. The course will explore environmental issues through a multi-disciplinary approach and will relate historical and contemporary problems in human-environment interactions to school curricula from the elementary to the secondary level. Includes a laboratory component. Grading will be on a pass/fail basis. A $35 field activity fee will be levied in this course. Normally offered in summer session only. Prerequisite: EDUC 401/402.

EDUC 456-4 Models of Contemporary Arts in Education
Major conceptions of educational value in the contemporary arts, and application of these ideas to the development of visual arts programs in the schools. Prerequisite: 60 hours of credit.

EDUC 457-4 Drama and Education
This course deals with theory, curricula and methodologies in drama education. Topics will include a selection from the following: aims of drama education; drama as methodology; role of the teacher in the drama classroom; evaluating students in drama classes; creative drama; the use of improvisation and storytelling; incorporating film and video work into drama classes; developing major projects with students such as choral dramatization, docudrama, anthropology, and readers theatre; introducing scene work, stagecraft, and theatre history. Prerequisite: EDUC 401/402.

EDUC 459-4 Instructional Activities in Physical Education
This course focuses on theory and curriculum of school physical education programs. Emphasis is given to the movement education orientation as it pertains to the various program activities and
approaches applicable to primary, intermediate and secondary levels. Prerequisite: EDUC 401/402.

EDUC 463-4 Multimedia for Curriculum Design
This course focuses primarily on the evaluation of the use of multimedia software packages in relation to important curricular and instructional issues. A secondary focus will be the student design and production of a multimedia package for use in an educational setting. Prerequisite: EDUC 260 or permission of instructor.

EDUC 464-4 Early Childhood Education
Current trends, issues and research relating to the education of young children. Prerequisite: EDUC 401/402 or PSYC 250.

EDUC 465-4 Children’s Literature
Historical, sociological and literary perspectives on literature for children. Prerequisite: 60 hours of credit.

EDUC 467-4 Instruction in Teaching English as a Second Language
Students will learn to use English language teaching grammar appropriately, to evaluate and use methods of teaching English as a second language, to do error analyses, and to adapt commercial programmes to the specific needs of learners. This course is designed for teachers and prospective teachers. Prerequisite: 60 hours of credit and ENGL 370 or a linguistics course.

EDUC 468-4 Cognition and Language in ESL Instruction
Cognitive approaches to second language learning; syntactic and vocabulary differences in content-area subjects; language learning strategies; visual literacy, self-directed language learning. Prerequisite: 60 hours of credit and one linguistics course.

EDUC 469-4 Music Education as Thinking in Sound
Understanding the language of music, both historical and contemporary, and use of electronic and acoustic instruments in the general music classroom. Prerequisite: 60 hours of credit.

EDUC 471-4 Curriculum Development: Theory and Practice
Explores of curriculum theory and processes of development with applications at different levels and in several subject areas. Prerequisite: 60 hours of credit.

EDUC 472-4 Designs for Learning: Elementary Language Arts
Focuses on developing knowledge, skills and strategies to create a rich and stimulating language arts program in the elementary classroom. Issues in reading, writing, speaking and listening will be examined through current theory and teaching practice. Prerequisite: EDUC 401/402. Students who have credit for EDUC 472 prior to 2001-2 semester cannot take EDUC 472 for further credit.

EDUC 473-4 Designs for Learning: Reading
This course offers both theoretical and practical information about teaching reading in primary and early intermediate grades. Prerequisite: EDUC 401/402.

EDUC 474-4 Designs for Learning: Elementary Social Studies
Focuses on teaching elementary school social studies and addresses aspects of the theory and practice of social studies education. Students examine their thinking about social studies education through critical reflection, work with the prescribed curriculum, and explore various ways to develop engaging learning experiences for children within a consistent framework using appropriate instructional materials and methods. Prerequisite: EDUC 401/402. Students who have credit for EDUC 474 prior to 2001-2 semester cannot take EDUC 474 for further credit. Students with credit for EDUC 414 cannot take EDUC 474 for further credit.

EDUC 475-4 Designs for Learning: Elementary Mathematics
Focuses on teaching elementary school mathematics. Students explore mathematical learning, their own mathematical thinking, and curriculum; and plan mathematical instruction within a consistent framework using appropriate instructional materials and methods. Prerequisite: EDUC 401/402. Students who have credit for EDUC 475 prior to 2001-2 semester cannot take EDUC 474 for further credit.

EDUC 476-4 Designs for Learning: Elementary Science
Focuses on teaching elementary school science. Students explore science, aspects of learning science, and their own scientific thinking; work with the prescribed curriculum; and plan science learning experiences within a consistent framework using appropriate instructional materials and methods. Prerequisite: EDUC 401/402. Students who have credit for EDUC 476 prior to 2001-2 semester cannot take EDUC 474 for further credit.

EDUC 477-4 Designs for Learning: Art
This course introduces students to the main ideas, skills, materials, resources, understandings and organizational concerns involved in teaching art in schools. Prerequisite: EDUC 401/402.

EDUC 478-4 Designs for Learning: Music
This course is designed for in-service and pre-service teachers who would like to acquire the skills that will allow them to teach music competently and creatively. They will learn basic conducting techniques, design their own curriculums and have an opportunity to prepare and teach their own lesson plans. Previous musical experience is welcome, but not required. Prerequisite: EDUC 401/402.

EDUC 479-4 Designs for Learning: French Education
Consideration is given to the pedagogical principles underlying the development of inclusive physical programs at the primary, intermediate and secondary levels. Involves practical consideration of instructional strategies and curriculum planning in physical education, particularly as they apply to alternative environment activities. Prerequisite: EDUC 401/402. Corequisite: EDUC 459.

EDUC 480-4 Designs for Learning: French as a Second Language
Deals with a variety of approaches, teaching strategies and curricula, for teaching French as a second language in elementary and secondary schools. Prerequisite: EDUC 401/402. Instruction given in French.

EDUC 481-4 Designs for Learning: French Immersion Programs and Francophone Schools
Focuses on research and theories of language learning in bilingual programs and minority contexts, pedagogical approaches and curricula for teaching in French Immersion programs and Francophone elementary and secondary schools. Prerequisite: EDUC 401/402 (French Immersion). Instruction given in French.

EDUC 482-4 Designs for Learning: Information Technology
In this course, students develop a critical understanding of information technologies in education and learn how to integrate these technologies into classroom settings. An emphasis is on teaching strategies and methods as they complement the guidelines set forth in the BC Information Technology Curriculum. Prerequisite: EDUC 280 and 401/402 or permission of instructor.

EDUC 483-8 Designs for Learning: Curriculum Studies
Development of conceptual and technical skills through workshops, seminars, and directed and independent study. Deals with human development and learning in the school. Stress will be placed on approaches to individualizing instruction and to integrating the curriculum in different subject areas. It will normally be taught by two or more faculty members. Prerequisite: EDUC 401/402.

EDUC 485-8 Designs for Learning: Writing
The course is designed to help students become better teachers of writing. Students will be involved in four aspects of teaching writing: teacher as writer, teacher as teacher of writing skills, teacher as researcher, teacher as developer of curriculum. Techniques for providing effective writing experiences will be studied, demonstrated and practised. Students will observe, use and evaluate these techniques. Course content: teacher as writer - writing skills, self-disclosure, risk and creativity, thought and discipline, evaluation. Teacher as researcher - reflective observation, analysis of data, program evaluation, peer support, evaluation. Teacher as developer of curriculum - student writing, drama, literature, use of texts. Prerequisite: EDUC 401/402.

EDUC 486—489 Special Topics
Sections will deal with major issues of concern. Subjects to be discussed will be announced during the semester prior to that in which the course is to be offered. The exact assignment of credit hours (3, 4 or 6) and prerequisites for the special topics offering will be announced prior to the beginning of each semester. A maximum of 12 credit hours in education special topics courses may be used toward a bachelor of education degree. Variable credit hours: 3, 4, 6.

EDUC 490-4 Directed Study
Directed study in education under the supervision of a faculty member. Prerequisite: 60 credit hours and a CGPA of 3.0, consent of supervising faculty member, and approval of the director of undergraduate programs. A maximum of three directed studies courses will be approved for a maximum of 12 credits. Directed studies courses may not parallel regularly taught courses. A student may take a maximum of two directed studies courses with the same faculty member. Applications are available in the undergraduate programs office. Variable credit hour: 2, 4.

EDUC 491-4 Directed Study
Directed study in education under the supervision of a faculty member. Prerequisite: 60 credit hours and a CGPA of 3.0, consent of supervising faculty member, and approval of the director of undergraduate programs. A maximum of three directed studies courses will be approved for a maximum of 12 credits. Directed studies courses may not parallel regularly taught courses. A student may take a maximum of two directed studies courses with the same faculty member. Applications are available in the undergraduate programs office. Variable credit hour: 2, 4.

EDUC 492-2 Directed Study
Directed study in education under the supervision of a faculty member. Prerequisite: 60 credit hours and a CGPA of 3.0, consent of supervising faculty member, and approval of the director of undergraduate programs. A maximum of three directed studies courses will be approved for a maximum of 12 credits. Directed studies courses may not parallel regularly taught courses. A student may take a maximum of two directed studies courses with the same faculty member. Applications are available in the undergraduate programs office. Variable credit hour: 2, 4.

EDUC 490-4 Directed Study
Directed study in education under the supervision of a faculty member. Prerequisite: 60 credit hours and a CGPA of 3.0, consent of supervising faculty member, and approval of the director of undergraduate programs. A maximum of three directed studies courses will be approved for a maximum of 12 credits. Directed studies courses may not parallel regularly taught courses. A student may take a maximum of two directed studies courses with the same faculty member. Applications are available in the undergraduate programs office. Variable credit hour: 2, 4.

EDUC 492-2 Directed Study
Directed study in education under the supervision of a faculty member. Prerequisite: 60 credit hours and a CGPA of 3.0, consent of supervising faculty member, and approval of the director of undergraduate programs. A maximum of three directed studies courses will be approved for a maximum of 12 credits. Directed studies courses may not parallel regularly taught courses. A student may take a maximum of two directed studies courses with the same faculty member. Applications are available in the undergraduate programs office. Variable credit hour: 2, 4.
EDUC 493-4 Directed Studies in Environmental Education
A multidisciplinary approach for educators in formal and informal settings with an interest in learning more about environmental issues. Students will consider multiple perspectives on the goals, values and interdisciplinary nature of environmental education, review locally available curricular materials and obtain a grounding in appropriate models for learning and teaching environmental topics. Prerequisite: 60 credit hours and a CGPA of 3.0. EDUC 452, consent of supervising faculty member, and approval of the director of undergraduate programs. Applications are available in the undergraduate programs office.

EDUC 495—498 Special Topics
Sections will deal with major issues of present concern. Subjects to be discussed will be announced during the semester prior to that in which the course is to be offered. The exact assignment of credit hours (3, 4 or 6) for the special topics offering will be announced prior to the beginning of each semester. Prerequisite: this will be announced prior to the beginning of each semester. A maximum of 12 hours in education special topics courses may be used toward a bachelor of education degree. Please refer to SA 333 Sociology of Education, as this course is also accepted as education credit.

EDUC 702-2 Directed Readings
EDUC 703-3 Directed Readings
EDUC 704-4 Directed Readings
EDUC 705-5 Directed Readings
EDUC 710-3 Special Topics (Variable credit course 3, 4, 5)
EDUC 711-5 Special Topics (Variable credit course 3, 4, 5)
EDUC 712-3 Special Topics (Variable credit course 3, 4, 5)
EDUC 713-5 Special Topics (Variable credit course 3, 4, 5)
EDUC 720-3 Special Topics (Variable credit course 3, 4, 5)
EDUC 801-5 Counselling Practicum I
Supervised clinical experience for students enrolled in the MEd or MA Counselling Psychology Program. Graded on a satisfactory/unsatisfactory basis. Prerequisite: EDUC 862, 870 and 874.

EDUC 802-5 Counselling Practicum II
Advanced supervised clinical experience for students enrolled in the MEd or MA Counselling Psychology Program. Graded on a satisfactory/unsatisfactory basis. Prerequisite: EDUC 801.

EDUC 803-5 Educational Program Supervision
The course systematically examines school-based variables amenable to administrative manipulation and associated with student achievement. Prerequisite: EDUC 804-5.

EDUC 804-5 Selected Problems in Educational Uses of Technology
EDUC 805-5 Social Development in the School Context
This course involves an examination of theoretical, empirical and practical literature on social and emotional development in young children and its application to education and school settings.

EDUC 806-5 Selected Problems in Higher Education
EDUC 807-5 The Foundations of Action Research
EDUC 809-5 Graduate Seminar
EDUC 811-5 Fieldwork I
Graded on a satisfactory/unsatisfactory basis.

EDUC 812-5 Fieldwork II
Graded on a satisfactory/unsatisfactory basis.

EDUC 813-5 Organizational Theory and Analyses
This course critically examines organizations in which educational leaders work from different theoretical perspectives and in light of research evidence. It also critiques several past and current reform initiatives, and explores specific topics in-depth. A central and pervasive question of the course concerns organizational purposes, especially with respect to learning, and how these purposes are served by organizational structures and processes.

EDUC 815-5 Administrative Processes
This course examines the administrative world in which educational leadership occurs, including: administrative ideologies, theories of practice and institutional arrangements; values analysis; and technical fields such as financial, legal and human resources. This is complemented by an introduction to current research findings and to distinct theoretical traditions (e.g. structural-functional, interpretive and critical) in which research examining administrative processes is conducted. Topical issues and problems will be explored within the conceptual framework of the course.

EDUC 816-5 Developing Educational Programs and Practices for Diverse Educational Settings
Investigates theories and issues associated with developing educational programs and practices in various educational contexts. Addresses the development of new programs and their implementation in schools and other educational settings.

EDUC 817-5 Policy Processes
This course examines three interrelated aspects of policy studies as a critical function of the educational leadership role: conceptual and theoretical foundations concerning policy, policy actors, and policy processes; current research in the field; and topical issues and problems. It also considers social, economic and political contexts (e.g. technologization, corporatization, pluralism) and how they affect education.

EDUC 818-5 Leadership Studies
This course examines three interrelated aspects of educational leadership: conceptual and theoretical foundations, with a particular emphasis on ethics of leadership; current research in the field, including feminist and cultural critiques; and topical issues and problems of leadership practice.

EDUC 819-5 Studies in Teacher-Student Interaction
Consideration of systems for analysing teacher-student interaction and their use in analysing the student's own classroom teaching. The course will also deal with models of instruction designed to achieve various categories of educational objectives.

EDUC 820-5 Current Issues in Curriculum and Pedagogy
Focuses on educational issues, trends and practices which impact teaching and learning in schools and other educational settings.

EDUC 821-5 Philosophical Issues-Classroom Practices
Philosophical examination of assumptions underlying practical problems in classroom teaching. Some of the main issues examined include: distinguishing teaching, indoctrination, and conditioning; the use of compulsion, manipulation, and discipline; student/teacher relationships; child-centered education; alternative education; punishment and behavior modification. It also focuses on assumptions underlying such practices as play, learning by discovery, individualized instruction, and open education.

EDUC 822-5 Evaluation of Educational Programs
Processes used in program evaluation; including test and other measurement devices; and political, social and philosophical issues relating to the evaluation of educational programs.

EDUC 823-5 Curriculum and Instruction in an Individual Teaching Speciality
An intensive examination of developments in a curriculum area selected by the student. In addition the course will deal with major philosophical and historical factors that influence the present state and future directions of curriculum and instruction.

EDUC 824-5 Seminar in Second Language Teaching
Theories of sentence, discourse, and context in second language education; teaching scientific genres and humanities genres, use of dictionaries and glossaries, use of standardized and alternative forms of assessment.

EDUC 825-5 Second Language Acquisition and Schooling
Academic factors that impact language learning, the universal grammar model of language, speech perception and production in first and second languages.

EDUC 826-5 The Reading Process
This course has a decidedly theoretical emphasis. Topics for study include: reading as a physiological process; psychological models of word processing; models for language and reading comprehension. The literature for this course will draw heavily upon current educational, psycholinguistic and psychological writings. Prerequisite: EDUC 473.

EDUC 827-5 Individual Differences in Learning
Students will examine current conceptions of individual differences that characterize the heterogeneity of students’ abilities in school. Educational implications will also be addressed.

EDUC 828-5 Instructional Practices in Reading
The history of reading materials and methods will be discussed, and past and present instructional practices in reading evaluated in terms of state-of-the-art knowledge of instructional research; methods of analyzing reading materials will be critiqued. Prerequisite: EDUC 826 or consent of the instructor.

EDUC 829-5 Contemporary Issues in Learning Disabilities
Selective issues important and current in the learning disabilities field are examined in depth. The objective is to enable students to master a significant body of knowledge in the learning disabilities field, and to identify areas of interest for their eventual thesis research. Prerequisite: EDUC 422.

EDUC 830-5 Implementation of Educational Programs
Problems and practices associated with innovation and implementation including the nature of change in the educational context, the roles of teachers, administrators, change agents, and evaluators.

EDUC 831-5 Seminar in Philosophy and Educational Theory
Philosophical examination of issues related to the school as an educational institution with social and political connections. Issues examined include: the
EDUC 842-5 Sociology of Development and Education
This course involves an exploration of the concept of creativity used in educational theory and practice. Through an examination of philosophical writings, psychological studies, first hand accounts of creators, biographical and historical material, and works of art and science themselves, an attempt will be made to come to grips with some of the problems which surround this concept and thereby to evaluate views about creativity put forth in theoretical accounts and exhibited in educational practice.

EDUC 851-5 Perspectives on Technology-Supported Learning
This course involves an exploration of basic issues and questions which underlie the nature and provision of drama education in the schools. It includes a critical examination of the claims made in the theoretical literature regarding the nature and aims of drama education and an exploration of the implications for drama education curriculum and pedagogy.

EDUC 853-5 Computer Supported Collaborative Learning
Computer-supported collaborative learning environments are designed with three principal objectives: to upgrade the conceptual quality of what is learned; to increase students’ abilities to monitor, control and improve their own learning; and to provide improved support for social aspects of learning. In this course students will critically examine the theoretical underpinnings of the design of such learning environments, and examine and contribute to developing practices in K-12 classrooms and other educational settings that make use of them.

EDUC 854-5 Teachers as Agents of Change
The narratives of teachers of minority and Anglo-European ancestry will provide insights into how teachers work within and beyond normative institutionally prescribed roles to define and implement positive social and educational changes for their students.

EDUC 855-5 Multicultural and Race Relations Education: Policy Development and Program Implementation
Theory, research, policy development and program implementation in multicultural and race relations education encompass a wide spectrum of educational inquiry.

EDUC 856-5 Sociocultural Perspectives on Education and Identity
Course activities will be structured for participants to consider recent formulations of learners as agents as well as subjects of culturally constructed, socially imposed worlds. Participants will examine a number of ethnographic descriptions of the experiences of learners in a variety of communities, noting in particular their use of diverse mediations/tools, including language. Participants will consider these ideas in relation to their own educational communities and sites, with special attention to those sites.

EDUC 857-5 Issues and Topics in Environmental Education
Examines the origins of environmental education, the range of program offerings, and the educational concepts which appear to underlie them. Prerequisite: consent of the instructor.

EDUC 858-5 Contemporary Research and Classroom Practices in French Immersion
Students examine studies, reports and articles relating to French Immersion methodology, curriculum and program exploration. Students derive classroom applications and curriculum changes from these studies. Prerequisite: EDUC 481.

EDUC 859-5 Philosophy of Science and Perspectives on Education
An introductory examination of various philosophical positions about the nature of science, including positivism, naive realism, instrumentalism, relativism and social constructionism, and their relation to curriculum and instruction in science.

EDUC 860-3 Foundations of Educational Psychology
An advanced survey of core topics in educational psychology. Prerequisite: An undergraduate course in educational psychology or a cognate field of psychology.

EDUC 861-5 Study of Learning Environments
This course reviews research on learning environments (also known as classroom climates or classroom ecologies) in terms of psychological and social perspectives on educational experiences. Implications for student learning, professional development and evaluating education innovations are examined.
EDUC 862-4 Individual Assessment Procedures
An overview of assessment procedures used in educational and community counselling settings, including standardized testing and observational procedures. Review of assessment related issues such as diagnosis, ethics, bias, psychometrics, and the integration of assessment procedures into the overall counselling process. Students who have taken EDUC 872 in previous semesters may not take this course for credit.

EDUC 863-5 Quantitative Methods in Educational Research
Focus on critical analysis of quantitative research in education. Research studies examined will be based on exploratory and confirmatory data analysis, including group comparisons and correlations. Students will use calculators and computers for data analysis and display. Prerequisite: EDUC 864.

EDUC 864-5 Research Designs in Education
Designing and interpreting research related to education. Introduction to survey techniques, correlational designs, classic experimental and evaluation designs for investigating causal relations, case study methods, interpretive approaches to research. Students with credit for EDUC 814 may not take this course for further credit.

EDUC 865-5 Advanced Qualitative Research in Education
Students will study in depth various qualitative methodological approaches to educational research, will develop competence to contribute significantly to knowledge in their particular field of study, and will engage in intensive practice of various methodological approaches to qualitative research introduced in EDUC 867. Prerequisite: EDUC 864 and 867.

EDUC 867-5 Qualitative Methods in Educational Research
This course introduces students to qualitative research in education and examines topics such as identifying problems, using conceptual frameworks, coding, data analysis, drawing interpretations, and constructing arguments. Prerequisite: EDUC 864.

EDUC 868-5 Curriculum Theory and Art Education
The course examines and relates conceptions of creativity and response in the visual arts to the fundamental questions of curriculum theory.

EDUC 869-5 Music Education as Thinking in Sound
This course presents the theory and practice of music education based on theories of auditory perception, musical theory, and various cross-cultural perspectives on musical behavior.

EDUC 870-5 Theories of Counselling
Students examine analytic, phenomenological, existential, behavioral and cognitive approaches to counselling, and the philosophical and personality theories upon which they are based.

EDUC 871-5 Family Counselling
Students discuss models of family dynamics and instructional interventions applicable by school personnel in family counselling interactions. Concepts and techniques will be explicated through discussion and simulation. Prerequisite: EDUC 870.

EDUC 873-4 Vocational Counselling
Provides a sound theoretical basis for career counselling activities. Major vocational theorists will be discussed along with relevant assessment considerations. Skills will be developed in such areas as utilizing community resources, obtaining vocational information, building a career information centre, job search techniques, and procedures for enhancing occupational placement.

EDUC 874-5 Counselling Skills and Strategies
Counselling skills and strategies are analysed, practiced, and critically examined. Counsellor decision-making, counselling effectiveness, and professional ethics in counselling are also considered. Prerequisite: consent of the instructor.

EDUC 876-5 Cognitive Intervention Research
This course examines issues in research designed to enhance learners' cognitive processes. This research is subsumed under the broad term 'cognitive interventions,' which in turn, refers to research purported to increase learners' success in learning. The issues examined include the historical context, problems and prospects of cognitive interventions. Prerequisite: EDUC 829.

EDUC 877-5 Contemporary School Counselling
An examination of contemporary approaches to school counselling. Program development, consultation skills, counselling interventions, and ethics of school counselling are considered.

EDUC 878-5 Group Counselling
An examination of contemporary approaches to group counselling. Prerequisite: EDUC 874.

EDUC 880-2.5 Master's Project (Completion)
Master's Project (Completion)

EDUC 881-5 Project
The project is a study that may take a variety of different forms including a survey, case study, extended essay, curriculum development project inter alia; central to its character is a concern with the application of relevant academic knowledge to professional practice. The project should normally be completed and approved in two semesters.

EDUC 883-5 MEd Comprehensive Examination
The examination is graded on a satisfactory/unsatisfactory basis.

EDUC 884-2.5 MEd Comprehensive Examination (Completion)
Students who do not complete EDUC 883-5 in one semester must register for this course in all subsequent semesters.

EDUC 897-5 Master's Thesis (Completion)
Master's Thesis (Completion)

EDUC 898-10 Master's Thesis
The thesis is a research investigation designed to generate and/or examine new knowledge in the theory and/or practice of education. The thesis should normally be completed and approved in three semesters.

EDUC 899-10 Doctoral Thesis
Prerequisite: EDUC 983.

EDUC 901-5 Seminar-History of Educational Theory
The historical roots of educational thought are examined from a broad cultural perspective. Major works in disciplines such as philosophy, psychology and sociology which have had significant impact on educational theorizing will be studied. Special attention will be paid to the relationship between theory and educational practice.

EDUC 902-5 Interdisciplinary Seminar in Contemporary Educational Theory
Contemporary educational theories and theories from supporting disciplines (e.g., psychology, sociology, philosophy) will be examined and analysed. The relationships among contemporary theories, current practice and educational change will be focal.

EDUC 903-5 Research Apprentices
The apprenticeship is designed to provide the student with practical experience in scholarly inquiry in close co-operation with a faculty member in the student's area of specialization.

EDUC 904-5 Fieldwork III
EDUC 905-5 Fieldwork IV
EDUC 910-5 Directed Readings
EDUC 911-5 Colloquium in Curriculum Theory (I)
EDUC 912-5 Colloquium in Curriculum Theory (II)
EDUC 945-5 Doctoral Seminar in Arts Education
This course provides a broad theoretical overview of problems and ideas associated with the nature and provision of arts education in the schools.

EDUC 946-5 Doctoral Seminar in Mathematics Education
This seminar is designed to extend and deepen students' understanding of the discipline of mathematics education. It will examine international developments, research programs, special interest groups, recent theories in learning and teaching mathematics, and issues in mathematics teacher education. Prerequisite: EDUC 846 and 847.

EDUC 950-5 Approaches to Educational Research
The broad paradigms encompassing much current educational research are examined, with emphasis on their philosophical and assumptive bases, as well as general ethical and methodological issues. Particular attention is paid to the critical reading of research and the implications for educational leadership. In addition, students begin to identify a research topic and to develop a defensible research orientation.

EDUC 960-5 Ethics, Law and Professional Leadership
This seminar examines the ethical and legal environment of professional leadership. Specifically, the course addresses moral issues and dilemmas embedded in professional practice including occupational and ordinary morality, issues of deception and honesty, informed consent, privacy and confidentiality, conflict of interest, individual and collective responsibility, inter alia. The course will use cases and personal experience as heuristics for learning.

EDUC 961-5 Educational Governance, Reform, and Diversity
The nature and impact of recent wide-ranging systemic educational reform in several different countries are critically examined, through two major themes. One theme is the politics and dynamics of governance, with a particular emphasis on participatory forms of political life in a heterogeneous society. The other theme is the politics and culture of difference, and the development of community which respects these differences.

EDUC 962-5 Leadership, Accountability and Public Interest
The special responsibilities of leaders in educational institutions for accountability both to learners and to the wider community with respect to policies, practices and programs are the focus of this seminar. Contemporary approaches to program assessment and to ensuring cost-effectiveness in educational management are applied to cases emerging from student experience.

EDUC 963-5 Approaches to Problematizing
This course examines how problems in practice are identified, defined and understood from a variety of different theoretical perspectives. Within the common framework of the course, students will investigate a problem or issue of significance to their individual workplaces or to their individual research endeavors.

EDUC 964-5 Seminar in Educational Theory
The historical roots of educational thought and contemporary educational theories are examined from a broad cultural perspective. Major works in
disciplines such as philosophy, psychology and sociology which have had significant impact on educational leadership will be studied. Special attention will be paid to the relationships between historical, contemporary theories and educational practice.

EDUC 970-4 Systems and Paradigms in Educational Psychology
A survey of major 20th century systems and paradigms that underlie research and theories in instructional psychology; addresses learning, cognition, motivation, methods of inquiry, and other cornerstones of the field. Prerequisite: one of EDUC 826, 829, 860, 870 or equivalent graduate course.

EDUC 971-4 Advanced Topics in Educational Psychology
In-depth critical analysis of select topics in educational psychology. Prerequisite: EDUC 860. Students who have taken EDUC 865 in previous semesters may not take this course for further credit.

EDUC 972-4 Colloquium in Psychology of Education
Survey of methods for synthesizing knowledge gleaned from primary and secondary research, including meta-analysis and integrative reviewing. Assignments culminate in presenting a colloquium about a topic of the student's choice to the faculty.

EDUC 975-4 Advanced Quantitative Methods in Educational Research
Methods for analyzing multivariate data in educational research, meta-analytic methods, and applications and frailties of advanced quantitative analysis. Illustrations from educational research are used throughout. Prerequisite: EDUC 863 and 864 or permission of instructor.

EDUC 983-5 Doctoral Comprehensive Examination
The examination is graded on a satisfactory/unsatisfactory basis.

Education Professional EDPR Faculty of Education

EDPR 384—399 Special Topics
These field based courses will explore issues of concern to experienced practising educators. Courses may be offered on a pass/withdrawal basis. Variable credit hours: 2, 3, 4, 5. Prerequisite: EDUC 405 or special permission of the instructor.

EDPR 410—413 Field Based Studies in Curriculum Development
These courses are intended for practising teachers who wish to upgrade their professional work in a specific area of educational service. The field work is completed by individuals or groups of teachers under the supervision of a faculty member or field studies supervisor designated by the faculty. Those wishing to undertake a field based studies course must submit a proposal form, available from the Office of Field Programs, before the end of the semester prior to the one in which the student intends to commence the study. The proposal must be approved by the director of field programs prior to registration in the course. Field studies courses may have a credit value of 2, 3, 4 or 5 semester hours depending upon the nature of the project proposal. Evaluation is based on a pass/withdrawal system. Field based studies in educational practice may not form a component of EDUC 404. These courses may form a component of an approved program of studies for the post baccalaureate diploma. Prerequisites: teaching certificate or permission of the director of field programs.

EDPR 414—417 Field Based Studies in Educational Practice
These courses are intended for practising teachers who wish to upgrade their professional work in a specific area of educational service. The field work is completed by individuals or groups of teachers under the supervision of a faculty member or field studies supervisor designated by the faculty. Those wishing to undertake a field based studies course must submit a proposal form, available from the Office of Field Programs, before the end of the semester prior to the one in which the student intends to commence the study. The proposal must be approved by the director of field programs prior to registration in the course. Field studies courses may have a credit value of 2, 3, 4 or 5 semester hours depending upon the nature of the project proposal. Evaluation is based on a pass/withdrawal system. Field based studies in educational practice may not form a component of EDUC 404. These courses may form a component of an approved program of studies for the post baccalaureate diploma. Prerequisites: teaching certificate or permission of the director of field programs.

EDPR 510—520 Special Topics
These courses require students to investigate current theory, research and pedagogy related to a particular theme. Graded on a satisfactory/unsatisfactory basis. Variable credit hours: 2, 3, 4, 5.

EDPR 521—540 Special Topics
These courses involve students in critical examination of policy, curricular, instructional and assessment practices related to a particular theme. Graded on a satisfactory/unsatisfactory basis. Variable credit hours: 2, 3, 4, 5.

EDPR 541—550 Advanced Field Studies in Curriculum Development I
In these courses, students read for, plan and develop a conceptual framework for action that connects them to the individual's professional context. Graded on a satisfactory/unsatisfactory basis. Variable credit hours: 2, 3, 4, 5.

EDPR 551—560 Advanced Field Studies in Curriculum Development II
In these courses, students read for, plan and develop a conceptual framework for action that connects them to the individual's professional context. Graded on a satisfactory/unsatisfactory basis. Variable credit hours: 2, 3, 4, 5.

EDPR 561—570 Advanced Field Studies in Educational Practice I
In these courses, students implement plans for action, conduct classroom inquiry, and document their individual learning related to the theme of the course sequence. Graded on a satisfactory/unsatisfactory basis. Variable credit hours: 2, 3, 4, 5.

EDPR 571—580 Advanced Field Studies in Educational Practice II
In these courses, students implement plans for action, conduct classroom inquiry, and document their individual learning related to the theme of the course sequence. Graded on a satisfactory/unsatisfactory basis. Variable credit hours: 2, 3, 4, 5.

EDPR 581—590 Advanced Field Studies in Collaborative Inquiry I
In these courses, students work in groups to investigate topics of mutual interest within the diploma theme, with an emphasis on their contributions to both the cohort learning group and the individual's broader educational community. Graded on a satisfactory/unsatisfactory basis. Variable credit hours: 2, 3, 4, 5.

EDPR 591—599 Advanced Field Studies in Collaborative Inquiry II
In these courses, students work in groups to investigate topics of mutual interest within the diploma theme, with an emphasis on their contributions to both the cohort learning group and the individual's broader educational community. Graded on a satisfactory/unsatisfactory basis. Variable credit hours: 2, 3, 4, 5.

Educational Technology and Learning ETEC Faculty of Applied Sciences

ETEC 600-1 Learning with Asynchronous Communication
This course will introduce graduate students to teaching and learning with asynchronous computer-mediated conferences. It will survey related learning theory, research on effectiveness, design of learning activities, facilitation, assessment, and features of conferencing systems.

ETEC 601-1 Problem Based Learning
This course will introduce graduate students to teaching and learning with problem-based learning (PBL). Delivered using PBL, the course includes related learning theory, research on effectiveness, design of learning activities, assessment, facilitation, and computer-mediated delivery.

ETEC 691—699 Directed Studies
Variable credit hours: 1, 2, 3.
Graduate courses are numbered 500-999

Simon Fraser University  2005 • 2006

ENSC 102-1 Form and Style in Professional Genres
The major focus of this course is on the style and format of technical writing with attention to laboratory reports and project documentation. This course also examines resumes, cover letters, interview skills and formal reports to help students prepare for their first internship semester. It also addresses listening skills and group dynamics in the context of the team projects undertaken for ENSC 151. Corequisite: PHYS 131.

ENSC 150-3 Introduction to Computer Design
Digital design concepts are presented in such a way that students will learn how logic blocks can be designed and employed to construct a simple computer. Topics covered include: basic Von Neumann computer architecture; an introduction to assembly language; combinational logic design; and sequential logic design. An interactive logic simulation environment will be provided for assignments. Assembly language programming is introduced. This course is identical to CMPT 150 and students cannot take both courses for credit. Students who have taken CMPT 290 cannot take this course for further credit.

ENSC 151-2 Digital and Computer Design Laboratory
The practical concepts of assembly language such as programming, digital device interfacing, and hardware/software interfacing will be introduced through a group project. Topics will include: assembler concepts; micro-controllers; the hardware/software interface. Laboratory techniques will also be introduced as needed. This is a project course with a few lectures, or laboratory tutorials. Prerequisite: CMPT 150 or ENSC 150.

ENSC 194-0 Optional Job Practicum
Four month internship of a non-technical nature. May be taken at any time during the program but will not count toward the mandatory co-op work terms. Credit is awarded as in ENSC 195.

ENSC 195-0 Job Practicum I
First four month internship in industry. Credit is given as pass/withdrawal (P/W/F) only, based on the employer's and co-operative education co-ordinator’s evaluations.

ENSC 196-0 Job Practicum II
Four month internship in industry or university research environment. Credit is awarded as in ENSC 195. Prior approval of Internship Co-ordinator required.

ENSC 201-3 The Business of Engineering
This course covers the business, management and entrepreneurial concepts that are important to engineers who manage projects, run businesses, or need to decide on the most efficient method for accomplishing a task. The topics to be covered include: financial accounting, rates of return, taxes, cost-benefit analyses, marketing, financing methods, and business plans. Prerequisite: 45 credit hours.

ENSC 204-1 Graphical Communication for Engineering
An introduction to the use of graphical communication in engineering. Objectives are to improve the students’ literacy in the use of graphics to communicate engineering information, and their ability to visualize and to think in three dimensions. Specific application areas discussed include 2D and 3D geometry in mechanical drawing, electronics-related drawings, block diagrams, and flow charts. The use of CAD tools will be discussed, and demonstrations of some tools will be provided.

ENSC 220-3 Electric Circuits I
This course will cover the following topics: fundamental electrical circuit quantities, and circuit elements; circuits laws such as Ohm law, Kirchoff’s voltage and current laws, along with series and parallel circuits; operational amplifiers; network theorems; nodal and mesh methods; analysis of natural and step response of first (RC and RL), as well as second order (RLC) circuits; real, reactive and rms power concepts. In addition, the course will discuss the worker safety implications of both electricity and common laboratory practices such as soldering. Prerequisite: PHYS 121 and 131, MATH 232 and 310. MATH 232 and/or 310 may be taken concurrently. Students with credit for ENSC 125 cannot take this course for further credit.

ENSC 224-3 Electronic Devices
Covers the essential physics of silicon semiconductor devices that form the heart of integrated circuits today. Topics include: an introduction to semiconductor device physics upon which device models are based; the development of the drift-diffusion equations; the static and dynamic behavior of PN junction diodes, bipolar junction transistors, and field effect transistors; the application of examples and experiments. Prerequisite: ENSC 220 or equivalent.

ENSC 225-4 Microelectronics I
This course teaches analog/digital electronics and basic device physics in the context of modern silicon integrated circuits technology. Topics include: qualitative theoretical characteristics; implementations and models of basic semiconductor devices (diodes, BJTs and MOSFETs); circuit simulation via SPICE; basic diode circuits; transistors as amplifiers and switching elements; temperature effects and compensation; single-stage transistor amplifiers; biasing, current sources and mirrors. Prerequisite: ENSC 150 or CMPT 150, and ENSC 220. Students with credit for ENSC 222 cannot take this course for further credit.

ENSC 230-4 Introduction to Mechanical Design
This course presents the elements and principles involved in the design of mechanical structures and mechanisms. Mechanical elements such as gears, cams and bearings and fundamental relationships between the forces and corresponding motion or deflection are investigated through examples and experiments. This background can then be used in the design, analysis and development of computer controlled machines such as robotic devices. Prerequisites: PHYS 132, MATH 310.

ENSC 250-3 Introduction to Computer Architecture
This course deals with the main concepts embodied in computer hardware architecture. In particular, the organization, design and limitations of the major building blocks in modern computers is covered in detail. Topics will include: processor organization; control logic design; memory systems; and architectural support for operating systems and programming languages. A hardware description language will be used as a tool to express and work with design concepts. Prerequisite: CMPT 150 or ENSC 150. This course is identical to CMPT 250 and students cannot take both courses for credit. Students who have taken CMPT 390 may not take CMPT 250 for further credit.

ENSC 263-3 Special Topics in Engineering Science
Prerequisite: permission of the undergraduate curriculum chair.

ENSC 264-4 Special Topics in Engineering Science
Prerequisite: permission of the undergraduate curriculum chair.

ENSC 295-0 Job Practicum III
Second four month internship in industry. Credit is awarded as in ENSC 195. Prerequisite: ENSC 195 or 196.

ENSC 296-0 Job Practicum IV
Four month internship in industry or university research environment. Credit is awarded as in ENSC 195. Prerequisite: ENSC 195 or 196 and approval of internship co-ordinator required.

ENSC 304-1 Human Factors and Usability Engineering
The user is often overlooked in the engineer’s quest for a functional and efficient design. This course examines the factors that make designs more or less usable and how to integrate usability constraints and testing procedures into the design process.

ENSC 305-1 Project Documentation and Team Dynamics
This course is integrated with an ENSC project course (either ENSC 340 or 440) that provides practical experience with the design process for development projects. Topical areas include: human factors, team management, team writing, project documentation (proposals, functional and design specifications, progress reports, and users manuals), group dynamics and dispute resolution. Corequisite: ENSC 340 or 440.

ENSC 320-3 Electric Circuits II
This course is a second course on electric circuits and the topics covered include: the use of Laplace transform in circuit analysis, including poles and zeros, the frequency response and impulse response; convolution as a method for computing circuit responses; resonant and bandpass circuits; magnetically coupled circuits; three-phase circuits; two port circuits; and filtering. Prerequisite: ENSC 220. Students with credit for ENSC 125-6 cannot take this course for further credit.

ENSC 325-4 Microelectronics II
This course introduces Students to analog integrated circuit design in the context of modern silicon integrated circuits technology. Topics included: integrated circuit technology and design tools; integrated component characteristics and limitations, differential amplifiers; multi stage amplifiers; feedback amplifiers; stability and frequency compensation; integrated operational amplifiers; bipolar and MOS digital circuits; analog aspects of digital electronics. Prerequisite: ENSC 222 or 225.

ENSC 327-4 Communication Systems
This course represents and introduction to analog and digital communications systems. The main topics are: a review of Fourier Transform; the representation of bandpass signals; random signals in communications, including stationarity, ergodicity, correlation, power spectra and noise; amplitude and frequency modulation; circuits and techniques for modulation and demodulation; frequency division multiplexing; baseband digital communication; time division multiplexing, and multiplexing; basic digital modulation schemes such as BPSK, FSK and QPSK. Laboratory work is included in this course. Prerequisite: ENSC 281 or 380 or 382, and STAT 270.

ENSC 328-1 Random Processes in Engineering
An introduction to continuous-valued random processes, including first and second order statistics. Topics: definitions of random processes taking complex values in continuous time; autocorrelation and autocovariance functions in the time domain; stationarity, ergodicity; power spectral density in frequency domain; effect of linear filters; crosscorrelation functions and cross-power spectral densities. Prerequisites: ENSC 380 and STAT 270.

ENSC 330-4 Engineering Materials
This introductory course in materials science which covers materials — their structures, properties, and performance; crystal structures and instruments for structure determination; polymers, ceramics,
Relevant: ENSC 242-3 Electronic Devices
(This would be very useful for those students with a desire to develop solid state semiconductors detectors for biomedical imaging.)

ENSC 376-4 Introduction to Optical Engineering and Design
In this course student learn basics of designing optical instruments. Lectures cover the principles of operation of optical devices using linear (ray) optics and Fourier optics as well as optical metrology. Hands-on practice will be provided in experimental laboratory activities. Prerequisites: PHYS 121-3, MATH 254-3

ENSC 380-3 Linear Systems
The objectives of this course are to cover the modelling and analysis of continuous and discrete signals using linear techniques. Topics covered include: a review of Laplace transforms; methods for the basic modelling of physical systems; discrete and continuous convolution; impulse and step response; transfer functions and filtering; the continuous Fourier transform and its relationship to the Laplace transform; frequency response and Bode plots; sampling, the Z-Transform. Prerequisites: ENSC 125 or 220, ENSC 320 (may be taken concurrently) and MATH 310. Students with credit for ENSC 281 or 382 cannot take this course for further credit.

ENSC 383-4 Feedback Control Systems
This course is an introduction to the analysis, design, and applications of control systems. Basic concepts of linear control systems. Topics include transfer function representation of open and closed loop systems, time domain specifications and steady state error, sensitivity analysis, time and frequency response, and stability criteria. It includes a treatment of modern methods for the analysis of control systems based on the root locus, Bode plots and Nyquist criterion, and their use in the design of PID, and lead-lag compensation. Lab work is included in this course. Prerequisites: ENSC 281 or 382.

ENSC 387-4 Introduction to Electro-Mechanical Sensors and Actuators
This course provides an introduction to sensors and actuators for electromechanical, computer-controlled machines and devices. Topics include operating principles, design considerations, and applications of analog sensors, digital transducers, stepper motors, continuous-drive actuators, and drive systems electronics. Component integration and design considerations are included. Examples selected from applications of machine tools, mechatronics, precision machines, robotics, aerospace systems, and ground and underwater vehicles. Laboratory exercises strengthen the understanding of component performance, system design and integration. Prerequisites: ENSC 281 or 380 or 382.

ENSC 395-0 Job Practicum V
Third four month internship in industry. Credit is awarded as in ENSC 195. Prerequisite: ENSC 295 or 296 and a minimum of 75 credit hours study. ENSC 396-0 Job Practicum VI
Four month internship in industry or university research environment. Approved entrepreneurial projects will also be accepted. Credit is awarded as in ENSC 195. Prerequisite: ENSC 295 or 296, a minimum of 75 credit hours of study and approval of internship co-ordinator required.

ENSC 400-4 Directed Studies in Engineering Science
Directed reading and research in a topic chosen in consultation with a supervisor. Admission requires agreement by a proposed faculty supervisor and submission of a proposal to the school at least one month prior to the start of the semester in which the course will be taken. Upon completion of a directed study course, the student must submit a copy of the 'deliverables' to the chair of the undergraduate curriculum committee. Prerequisite: permission of the undergraduate curriculum committee chair.

ENSC 401-4 Directed Studies in Engineering Science
Directed reading and research in a topic chosen in consultation with a supervisor. Admission requires agreement by a proposed faculty supervisor and submission of a proposal to the school at least one month prior to the start of the semester in which the course will be taken. Upon completion of a directed study course, the student must submit a copy of the 'deliverables' to the chair of the undergraduate curriculum committee. Prerequisite: permission of the undergraduate curriculum committee chair.

ENSC 402-4 Directed Studies in Engineering Science
Directed reading and research in a topic chosen in consultation with a supervisor. Admission requires agreement by a proposed faculty supervisor and submission of a proposal to the school at least one month prior to the start of the semester in which the course will be taken. Upon completion of a directed study course, the student must submit a copy of the 'deliverables' to the chair of the undergraduate curriculum committee. Prerequisite: permission of the undergraduate curriculum committee chair.

ENSC 406-2 Engineering Ethics, Law, and Professional Practice
This course provides an introduction to the engineering profession, professional practice, engineering law and ethics, including the issues of worker and public safety. It also offers opportunities to explore the social implications and environmental impacts of technologies, including sustainability, and to consider engineers’ responsibility to society. Prerequisite: 100 credit hours or permission of the instructor.

ENSC 424-4 Multimedia Communications Engineering
This course covers the technical basis for multimedia communications systems. The main topics are as follows: methods for audio and visual signal compression and processing; the communications requirements of multimedia systems, such as synchronization, quality of service and bandwidth; the architectures and protocols associated with multimedia communications networks. Prerequisite: ENSC 281 or 380 or 382.

ENSC 425-4 Electronic System Design
This course provides an introduction to the analysis, design, and application of digital systems. Topics include new design methodologies, design considerations, and applications of digital design techniques. Students will be provided with a laboratory component to work on the design of complete digital systems. Prerequisites: ENSC 281 or 380 or 382.

ENSC 426-4 High Frequency Electronics
This course provides an introduction to the analysis, design, and application of digital systems. Topics include new design methodologies, design considerations, and applications of digital design techniques. Students will be provided with a laboratory component to work on the design of complete digital systems. Prerequisites: ENSC 281 or 380 or 382.

ENSC 427-4 Communication Networks
This course covers the technical basis for multimedia communications systems. The main topics are as follows: methods for audio and visual signal compression and processing; the communications requirements of multimedia systems, such as synchronization, quality of service and bandwidth; the architectures and protocols associated with multimedia communications networks. Prerequisite: ENSC 281 or 380 or 382.

ENSC 428-4 Digital System Design
This course provides an introduction to the analysis, design, and application of digital systems. Topics include new design methodologies, design considerations, and applications of digital design techniques. Students will be provided with a laboratory component to work on the design of complete digital systems. Prerequisites: ENSC 281 or 380 or 382.

ENSC 429-4 Instrumentation for Medicine
This course provides an introduction to the analysis, design, and application of digital systems. Topics include new design methodologies, design considerations, and applications of digital design techniques. Students will be provided with a laboratory component to work on the design of complete digital systems. Prerequisites: ENSC 281 or 380 or 382.
congestion control, routing strategies. Multiple access techniques in data networks, design for specified throughput and delay performance. Wireless networks, routing approaches in mobile networks. Analysis and design of broadband integrated services digital networks, asynchronous time division multiplexing. Laboratory work is included in this course. Prerequisite: ENSC 327 or permission of instructor.

ENSC 428-4 Data Communications
This course covers algorithms and protocols for data transmission in digital communication systems. The major topics covered are: information measures and the notion of channel capacity; link budgets; digital modulation techniques, including the signal space concept and optimal detectors, error performance in noise, suboptimal detectors, pulse shaping, synchronization, and equalization; error control techniques such as block and conventional codes, as well as comparisons between FEC and ARQ. Laboratory work is included in this course. Prerequisite: ENSC 327 and 351 or 385.

ENSC 429-4 Discrete Time Systems
Discrete time signals and systems, sampling and quantization. The Discrete Fourier Transform and fast transforms. Digital filters, IIR and FIR, design procedures and implementation. Quantization noise in digital filters and subbands. Random signals, the response to linear systems to random signals. Introduction to adaptive systems. Introduction to system architectures for digital signal processing. Laboratory work includes familiarization with digital signal processing software packages. Prerequisite: ENSC 281 or 380 or 382, and 327.

ENSC 440-4 Capstone Engineering Science Project
This capstone design course is based around a group project that consists of researching, designing, building and testing a device to implement a working system. The course also includes material on how to design for safety, engineering standards, and human factors. Prerequisite: ENSC 151, 225, 230, and any two courses from ENSC 325, 327, 383 and 387. Students with credit for ENSC 340 cannot take ENSC 440 for further credit. Corequisite: ENSC 305.

ENSC 450-4 VLSI Systems Design
An introduction to the design of Very Large Scale Integrated (VLSI) systems (System-on-Chip, SoC) using mainly CMOS technology. SoC design techniques and applications will be covered. Basic topics will include: CMOS technology and circuit layout rules; combinational and sequential circuits; logic simulation; system design; design for verification and testability; and embedded-processor design and application. An advanced digital design design flow based on the VHDL hardware description language will be introduced and exercised in the labs. Prerequisites: ENSC 225 and ENSC 350.

ENSC 460-4 Special Topics in Engineering Science
Studies in areas not included within the undergraduate course offerings of the engineering science program. Prerequisite: Permission of the director.

ENSC 462-4 Special Topics in Engineering Science
Studies in areas not included within the undergraduate course offerings of the engineering science program. Prerequisite: permission of the director.

ENSC 472-4 Rehabilitation Engineering and Assistive Devices
Provides students with exposure to essential topics in rehabilitation engineering and the design of assistive devices. The course is organized into weekly modules, each of which includes a basic patho-physiology component, an introduction to related rehabilitation engineering technology, and a laboratory/project component. All modules will provide students with (a) an understanding of the scientific basis for a specific area of rehabilitation engineering, (b) experience in the application of standard medical techniques for disability assessment, (c) exposure to biomechanical and physiological measurement techniques, (d) experience in the design (including ISO standards), construction, and evaluation of technological solutions to enhance mobility, communication, sensory function, cognition, and independence in daily activities. Prerequisites: ENSC 372, KIN 201, KIN 308, KIN 448.

ENSC 474-4 Biomedical Signal and Image Processing
Develops signal processing techniques of wide applicability, presented in the context of processing and analysis of biomedical images. Forms a sequel to the course ENSC 374-4, Introduction to Biomedical Imaging, which covers acquisition of medical images. The subsequent visualization, processing and analysis tools for signals and images such as 2D/3D medical images are covered. Students will become proficient in several basic tools used in signal processing by looking at their multidimensional counterparts for image processing. Prerequisites: ENSC 380 and either ENSC 327 or ENSC 328.

ENSC 476-4 Biophotonics
Basic physics of light-biomatter interactions and tissue optics. With this background students will embark on practical issues such as light-induced effects in bio-systems, diagnostic techniques and instrumentation, therapeutic instrumentation and applications, introduction to optical tomography, and finally they will learn about recent developments in optical sensors and applications. Lectures are accompanied by laboratory activities ending with a few basic evaluation projects and a final design and fabrication project. After this course the students will be able to evaluate feasibility of new photonic-based medical devices, such as diagnostic tools and light treatment technologies, and design and optimize these devices. Prerequisite: ENSC 376.

ENSC 481-4 Designing for Reliability
Aspects of quality control and reliability in manufacturing environments will be discussed, including stress and strain, failure modes, reliability testing, statistical and experimental methods, and destructive/non-destructive testing. Prerequisite: ENSC 330.

ENSC 483-4 Modern Control Systems
Analytical representation of the finite dimensional linear systems, analysis and design of linear feedback control systems based on the state space model, and state/output feedback. Topics include: review of the linear spaces and operators, mathematical modelling, state space representation and canonical forms, controllability, observability, realization of transfer function, and solution of the state equation. Applications include: stability concepts and definitions. Lapunov’s Direct Method, design of the state and output feedback control systems, eigenspectrum assignment, and state estimator design. Prerequisite: ENSC 383.

ENSC 488-4 Introduction to Robotics
Fundamentals of robotics: mathematical representation of kinematics, dynamics and compliance. Planning and execution of robot trajectories. Feedback from the environment: use of sensors and machine vision. A brief introduction to robot languages. Prerequisites: ENSC 383. All modules will provide students with (a) an understanding of the scientific basis for a specific area of rehabilitation technology, (b) experience in the application of standard medical techniques for disability assessment, (c) exposure to biomechanical and physiological measurement techniques, (d) experience in the design (including ISO standards), construction, and evaluation of technological solutions to enhance mobility, communication, sensory function, cognition, and independence in daily activities. Prerequisites: ENSC 372, KIN 201, KIN 308, KIN 448.

ENSC 491-1 Special Project Laboratory
This course is intended for students wishing to pursue laboratory research on a specific topic outside the standard course offerings. Each student must be sponsored by a faculty member who will oversee the project. A proposal of the student’s special project must be submitted to the school at least one month prior to the start of the semester in which the course will be taken. The credit value of the project will be assessed during this review phase and the student will be directed to register in the appropriate course. Upon completion of a special project laboratory course, the student must submit a copy of the ‘deliverables’ to the chair of the undergraduate curriculum committee. Prerequisite: permission of the undergraduate curriculum committee chair.

ENSC 492-2 Special Project Laboratory
This course is intended for students wishing to pursue laboratory research on a specific topic outside the standard course offerings. Each student must be sponsored by a faculty member who will oversee the project. A proposal of the student’s special project must be submitted to the school at least one month prior to the start of the semester in which the course will be taken. The credit value of the project will be assessed during this review phase and the student will be directed to register in the appropriate course. Upon completion of a special project laboratory course, the student must submit a copy of the ‘deliverables’ to the chair of the undergraduate curriculum committee. Prerequisite: permission of the undergraduate curriculum committee chair.

ENSC 493-3 Special Project Laboratory
This course is intended for students wishing to pursue laboratory research on a specific topic outside the standard course offerings. Each student must be sponsored by a faculty member who will oversee the project. A proposal of the student’s special project must be submitted to the school at least one month prior to the start of the semester in which the course will be taken. The credit value of the project will be assessed during this review phase and the student will be directed to register in the appropriate course. Upon completion of a special project laboratory course, the student must submit a copy of the ‘deliverables’ to the chair of the undergraduate curriculum committee. Prerequisite: permission of the undergraduate curriculum committee chair.

ENSC 494-4 Special Project Laboratory
This course is intended for students wishing to pursue laboratory research on a specific topic outside the standard course offerings. Each student must be sponsored by a faculty member who will oversee the project. A proposal of the student’s special project must be submitted to the school at least one month prior to the start of the semester in which the course

Graduate courses are numbered 500-999
Simon Fraser University 2005 - 2006

Course Catalogue – Engineering Science ENSC 379

COURSES
ENSC 495-4 Introduction to Microelectronic Fabrication

This project, an introduction to the practice and theory of semiconductor integrated circuit fabrication. The practical area will be covered in lectures and reinforced with laboratory experience where the students will manufacture diodes, transistors and small circuits. Major areas covered will be: clean room technology and economics, silicon wafer production, thermal oxidation, photolithography, thin film deposition (evaporation, sputtering, chemical vapor deposition, epitaxy), etching (wet, plasma, sputtering, reactive ion), diffusion, ion implantation, multi-layer conductor technology, packaging, device yields, plus examples in CMOS and bipolar IC's. This course is directed at any student with a basic background in transistor operation and is also an optional course for those in engineering physics. Prerequisite: ENSC 222 or 225.

ENSC 498-3 Engineering Science Thesis Proposal

The student’s time in this course is devoted to supervised study, research and development and work leading to a formal proposal for the project work in ENSC 499. This activity can be directly augmented by other course work and by directed study. The locale of the work may be external to the University or within a University laboratory, or may bridge the two locations. Supervision may be by the company sponsoring the internship or by faculty members, or through some combination. A plan for the student’s ENSC 498 activities must be submitted to the school at least one month prior to the start of the semester in which the course will be taken. Preparation of the undergraduate thesis project proposal is the formal requirement of this course and the basis upon which it is graded. Grading will be on a pass/fail basis. Prerequisite: at least 115 credits or permission of the academic supervisor.

ENSC 499-9 Engineering Science Undergrad Thesis

A thesis is based on the research, development and engineering project undertaken in the student’s Co-operative Education Program. Registration for ENSC 499 takes place in the semester in which the thesis will be presented and defended. Formal approval of the thesis by the School of Engineering Science is obtained by the granting of the grade of pass for ENSC 498. The locale of the work, supervision and other arrangements follow those for ENSC 498. Grading of the thesis will be on a pass/fail basis, but recognition will be given to outstanding work. Prerequisite: ENSC 498.

ENSC 800-0 Graduate Seminar in Engineering

A seminar series presented by graduate students, university researchers, government or industrial labs on recent developments in engineering science. All full time graduate students are required to register for this course in fall and spring semesters. Grading will be restricted to satisfactory/unsatisfactory (S/U), and to attain a satisfactory grade, students need to attend at least two thirds of the seminars.

ENSC 801-3 Linear Systems Theory

State-space analysis of finite dimensional continuous and discrete time linear systems. Linear vector spaces, linear operators, normed linear spaces, and inner product spaces are drawn from areas such as transmultiplexing, echo suppression, signal compression and modulation. Prerequisite: ENSC 429 or equivalent.

ENSC 820-3 Engineering Management for Development Projects

This course focuses on the management and reporting activities of typical engineering development projects. Through seminars and workshops, it builds on the student's skills at estimating project cost and schedule, keeping a project on track, and handing over the completed project to a customer or another team. A writing workshop emphasizes techniques for writing proposals, and writings and controlling documentation. Note that ENSC 820 will not count towards the course work requirement of students enrolled in the MSc and PhD programs. Prerequisite: permission of instructor.

ENSC 832-3 Mobile and Personal Communications

Propagation phenomena, modulation techniques and system design considerations for mobile and personal networks. Topics include: fading and shadowing, noise and interference effects, analog and digital transmission, cellular designs, multiple access techniques. Prerequisite: ENSC 802 or permission of instructor.

ENSC 833-3 Network Protocols and Performance

This course covers the techniques needed to understand and analyse modern communications networks. The main topics are as follows: practical techniques for the design and performance analysis of digital communication networks; performance analysis of error control, flow and congestion control, and routing; networks of queues using stochastic models; polling and random access LANs and MANs; wireless networks; broadband integrated services digital networks and asynchronous transfer mode; optical networks. Prerequisite: ENSC 802 or permission of instructor.

ENSC 834-3 Fundamentals of Optical Communication

This course discusses modern fibre optics communication systems. The major topics to be covered are as follows: the analysis of optical transmission media, including multimode and single mode technology; bandwidth limitations imposed by dispersive behavior of fibre; modified fibre profiles for third generation fibre communication systems; solitons; semiconductor laser diodes; external modulation; PIN photo diodes and avalanche photo detectors; bandwidth and noise limitations; optical amplifiers; semiconductor laser amplifiers; doped fibre amplifiers; optical receiver and transmitter circuits; quantum limited receiver performance; BER performance; optical communication networks.

ENSC 835-3 High-Speed Networks

Techniques needed to understand and analyze modern data communications networks. Basic architecture of packet networks and their network elements (switches, routers, bridges), and the protocols used to enable transmission of packets through the network. Techniques for collection, characterization, and modeling of traffic in packet networks. Aspects of traffic management, such as various options in admission control and congestion control algorithms in high-speed packet networks and the influence of traffic on network performance. Prerequisite: ENSC 427 or permission of the instructor.

ENSC 850-3 Semiconductor Device Theory

Detailed treatment at the graduate level of semiconductor fundamentals and theory. Electronic properties and characteristics of selected...
Graduate courses are numbered 500-999

ENSC 851-3 Integrated Circuit Technology
Review of semiconductor physics. Technology of semiconductor devices and integrated circuits: material evaluation, crystal growth, doping, epitaxy, thermal diffusivity, ion implantation, lithography and device patterning, and thin film formation. Design and fabrication of active and passive semiconductor devices, packaging techniques and reliability of integrated circuits.

ENSC 852-3 Analog Integrated Circuits
Models for integrated circuit activity and passive and active device modeling, high speed computer and microcomputer design tools and their use in designing analog integrated circuits; analysis of single transistor amplifiers; current sources, current mirrors, and voltage references; op-amps characteristics, analyses and circuit design examples; frequency response of integrated circuits; noise in integrated circuits; low power integrated circuits; non-linear analog integrated circuits. The students will be required to either design, fabricate, test and simulate analog ICs in the microelectronics lab, or do a project which involves the design, analysis, modeling and simulation of an analog integrated circuit. Prerequisite: ENSC 850 or permission of instructor.

ENSC 853-3 Digital Semiconductor Circuits and Devices
MOS device electronics. Second Order Effects in MOS transistors. BJT device electronics. Static and transient analysis of inverters. Digital gates, circuits and circuit techniques. Speed and power dissipation. Memory systems. Gate arrays, semicustom and customized integrated circuits. CAD tools. Students are required to complete a project.

ENSC 854-3 Integrated Microsensors and Actuators
Microelectronic transducer principles, classification, fabrication and application areas. Silicon micromachining and its application to integrated microelectronic sensors and actuators. CMOS compatible micromachining, static, dynamic and kinematic microactuator fabrication. Integrated transducer and sensor applications. Students will be required to complete a micromachining project in the microfabrication lab at ENSC. Prerequisite: ENSC 370, 453, 495 or permission of instructor.

ENSC 855-3 Modern Semiconductor Devices
The course will present the physical concepts required to participate in (or gain appreciation for) the field of semiconductor devices research. High speed, high performance devices used in telecommunication systems. Topics include: basic semiconductor energy band structure, low and high field transport in semiconductors, ballistic transport, the depletion approximation and beyond, heterostructures, band line-ups, lattice mismatched heterostructures \* strain as design parameter, charge recombination, operating principles of modern semiconductor devices such as SiGe or III-V HBTs, MESFETs/HEMTs, photodetectors, quantum well lasers.

ENSC 856-3 Compound Semiconductor Device Technology
The course will present the necessary tools and techniques required in the fabrication of compound semiconductor devices. Because of the wide disparity between III-V and silicon semiconductor devices, the course is orthogonal to the silicon device fabrication course ENSC 851. Topics to be covered include: basics of HBTs and HEMTs, elements of III-V compound semiconductor materials science, III-V substrate preparation and properties, doping of III-V compounds and amphoteric behavior, epitaxial growth by MBE, MOCVD, characterization of epiplexal layers, lithography: optical and electron beam, Schottky and ohmic contact formation, plasma processing techniques such as RIE and PECVD.

ENSC 858-3 VLSI Systems Design
Topics of relevance to the design of very large scale integrated (VLSI) circuits in CMOS technologies are covered. Key design techniques and fundamental limitations for high-speed computer and communication circuits are discussed. Most of the material will be presented through a series of case studies. The main topics are: CMOS technology, cell library design, memory design (SRAM, DRAM, ROM, PLA), arithmetic unit design, and embedded processor design. Parallelism, pipelining, and clocking are also discussed. Prerequisite: ENSC 450 or equivalent, or permission of the instructor.

ENSC 861-3 Source Coding in Digital Communications
This course presents basics of information theory and source coding with applications to speech/audio, images/video and multimedia. The course first covers the topics of entropy, information, channel capacity and rate-distortion functions. Various techniques used in source coding, entropy coding, scalar and vector quantization, prediction, transforms, analysis by synthesis, and model based coding are then discussed. Prerequisite: ENSC 802 or equivalent.

ENSC 883-3 Optimal Control Theory
Review of finite dimensional linear systems represented in state space formulation. Bellman’s principle of optimality and dynamic programming with applications to control of discrete and continuous time systems. Introduction to variational calculus, Pontryagin’s maximum principle, Hamilton-Jacoby-Bellman Equation, and variational treatment of control problems such as optimal linear quadratic regulator (LQR), optimal tracking and suboptimal output controllers will be discussed. Prerequisite: ENSC 483 or 801.

ENSC 887-3 Computational Robotics
A main goal of computational robotics is to automatically synthesize robot motions to achieve a given task. This course discusses geometric and algorithmic issues that arise in such an endeavour. For example, how can a robot plan its own collision-free motions? How does it grasp a given object? How do we account for uncertainty? The course employs a broad range of tools from computational geometry, mechanics, algorithms and control. The mathematical ceiling is general optimal control problems such as optimal linear quadratic regulator (LQR), optimal tracking and suboptimal output controllers will be discussed. Prerequisite: ENSC 483 or 801.

ENSC 899-3 3D Object Representation and Solid Modelling

ENSC 890-3 Advanced Robotics: Mechanics and Control
Robotic applications are extensively involved in various fields such as manufacturing and health care with new, efficient tools and methods having been developed for modelling and co-ordinating such devices. The main focus of this course is to introduce these tools and methods for kinematic and dynamic modelling approaches. These new approaches allow more intuitive and geometrical representation of motion and interaction in any articulated multi-body system such as robotics devices. The course offers valuable background for students involved in computer graphics (e.g. animation), human/machine interface (e.g. haptic interface), control engineers (e.g. trajectory planning, master/slave system) and robotic designers. The course involves individual projects in modelling and co-ordination of a robotic device. Prerequisite: introductory course in robotics (ENSC 488) or permission of the instructor.

ENSC 891-3 Directed Studies I
ENSC 892-3 Directed Studies II
ENSC 894-3 Special Topics I
ENSC 895-3 Special Topics II
ENSC 896-1.5 MEng Project (Completion)
ENSC 897-3 MEng Project
ENSC 898-6 MAsc Thesis
ENSC 899-6 PhD Thesis

English ENGL
Faculty of Arts and Social Sciences

ENGL 101-3 Introduction to Fiction
Examines selected works of literature in order to develop a critical awareness of literary techniques and contexts in the representation of experience. May include the comparative study of works in related literary and artistic genres, and will pay some attention to literature of the 20th century. Includes attention to writing skills.

ENGL 102-3 Introduction to Poetry
Examines selected works of literature in order to develop a critical awareness of literary techniques and contexts in the representation of experience. May include the comparative study of works in related literary and artistic genres, and will pay some attention to literature of the 20th century. Includes attention to writing skills.

ENGL 103-3 Introduction to Drama
Examines selected works of literature in order to develop a critical awareness of literary techniques and contexts in the representation of experience. May include the comparative study of works in related literary and artistic genres, and will pay some attention to literature of the 20th century. Includes attention to writing skills.

ENGL 104-3 Introduction to Prose Genres
The literary study of a variety of prose genres, such as the essay, biography, autobiography, travel narrative, and journalistic writing. Works may challenge the boundary between fiction and non-fiction. The course is intended to develop a critical awareness of literary techniques and contexts in the representation of experience. Includes attention to writing skills.
ENGL 105-3 Introduction to Issues in Literature and Culture
An introduction to the study of literature within the wider cultural field, with a focus on contemporary issues across genres and media.

ENGL 199-3 Introduction to University Writing
An introduction to reading and writing in the academic disciplines. Prerequisite: 12 university credit hours.

ENGL 204-3 Medieval and Renaissance Literature
The study of literary works from the Old English, Middle English and Renaissance periods. Prerequisite: two 100 division English courses.

ENGL 205-3 Seventeenth and Eighteenth Century Literatures in English
The study of literary works from the Jacobean, Commonwealth, Restoration and 18th century periods. May include some writing from North America. Prerequisite: two 100 division English courses.

ENGL 206-3 Nineteenth Century Literatures in English
The study of literary works from the Romantic period to the beginning of Modernism. May include some writing from North America. Prerequisite: two 100 division English courses.

ENGL 207-3 Twentieth Century Literatures in English
The study of literary works of the 20th century. May include Canadian, British, American, and other literatures. Prerequisite: two 100 division English courses.

ENGL 210-3 Advanced University Writing
Advanced study of writing in the scholarly genres in a variety of academic disciplines. Prerequisite: 24 university credit hours; ENGL 199 or permission of the department.

ENGL 212-3 Introduction to the Study of Language
An introduction to grammatical, stylistic and discursive features of the English language. Prerequisite: two 100 division English courses.

ENGL 214-3 Introduction to the Study of Rhetoric
An introduction to the principles of rhetoric, with special attention to those germane to the study of reading and writing. Prerequisite: two 100 division English courses.

ENGL 216-3 Introduction to Critical Approaches to Literature
An introduction to critical approaches to literature, with an emphasis on the application of theoretical perspectives to selected literary texts. Prerequisite: two 100 division English courses.

ENGL 300-4 Old English I: Introductory Old English
The study of the basics of the Old English language and the reading of several texts of relative simplicity. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 301-4 Old English II: Advanced Old English
Intensive study of several Old English poems. Prerequisite: ENGL 300, and two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 304-4 Studies in Medieval Literature
Studies of medieval authors, genres or issues, from 500-1500. Texts will be studied in the original language or in translation. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 306-4 Chaucer
The intensive study of selected works by Geoffrey Chaucer, read in the language in which they were written and situated in the context of 14th century European culture. Some course time will be dedicated to the study of the Middle English language. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 308-4 Studies in Renaissance Non-Dramatic Literature
The study of selected works of Renaissance poetry and prose written in English, and situated in their cultural context. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 310-4 Studies in Drama to 1642
The study of selected dramatic works written in English prior to the closing of the theatres in 1642. May be organized by various critical approaches or issues. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 311-4 Early Shakespeare
An intensive study of the early works of William Shakespeare, particularly the history of comedy plays, situated in the context of Elizabethan culture. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205. Students may take both ENGL 311 and 313 for credit towards the English major. Students with credit for ENGL 312 may not take this course for further credit without permission of the department.

ENGL 313-4 Late Shakespeare
An intensive study of the later works of William Shakespeare, particularly the tragedies and romances, situated in the context of Jacobean culture. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205. Students may take both ENGL 311 and 313 for credit towards the English major. Students with credit for ENGL 312 may not take this course for further credit without permission of the department.

ENGL 314-4 Studies in Seventeenth Century Literature
The study of selected works of seventeenth century poetry and prose, situated in their cultural context. May include some writing from North America. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 316-4 Milton
The intensive study of selected works by John Milton, situated in their cultural context. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 320-4 Studies in Restoration and Eighteenth Century Literature
The study of selected works of late 17th century and 18th century literature, with an emphasis on genres other than the novel. May include some writing from outside Britain, and may be organized by various critical issues or approaches. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 322-4 Studies in the Eighteenth Century
Addresses issues in eighteenth-century literature. May be organized by various critical issues or approaches. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 324-4 Studies in Romantic Literature
Addresses issues in Romantic literature in English. May include texts in a variety of genres and be organized according to various critical approaches. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 326-4 Nineteenth to the Twentieth Century
The study of selected 19th century works written after the Romantic era, with an emphasis on genres other than the novel. May be organized by various critical issues or approaches. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 333-4 Studies in Nineteenth Century British Novel
The study of selected 19th century novels. May be organized by various critical issues or approaches. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205. Students with credit for ENGL 332 or 334 may not take this course for further credit.

ENGL 336-4 Literature of Transition from the Nineteenth to the Twentieth Century
Addresses changes in society, culture and literature from the late 19th century to the early 20th century, through a selection of texts organized by various critical issues or approaches. May include Canadian, British, American and other literatures. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 338-4 Studies in Modernism
Addresses issues in Modernism. May include Canadian, British, American and other literatures. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 340-4 Twentieth Century British Literature to 1945
The study of selected works of British literature written from 1900 to 1945. May be organized by various critical issues or approaches. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 342-4 British Literature Since 1945
The study of selected works of British literature written since 1945. May be organized by various critical issues or approaches. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 347-4 American Literature to 1900
The study of selected works of American literature written before 1900. This course may survey a particular era or topic, and may be organized by various critical issues or approaches. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 349-4 Studies in American Literature
Addresses issues in American literature. May be organized by various critical issues or approaches. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.
ENGL 350-4 Twentieth Century American Literature to 1945
The study of selected works of American literature written from 1900 to 1945. May be organized by various critical issues or approaches. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 352-4 American Literature since 1945
The study of selected works of American literature written after 1945. May be organized by various critical issues or approaches. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 354-4 Canadian Literature to 1920
The study of selected works of Canadian literature written before 1920. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 357-4 Canadian Literature since 1920
The study of selected works of Canadian literature written after 1920. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205. Students with credit for ENGL 356 or 358 may not take this course for further credit.

ENGL 359-4 Literature of British Columbia
The study of selected works of British Columbian literature. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 360-4 Studies in Canadian Literature
Addresses issues in Canadian literature. May be organized by various critical issues or approaches. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 364-4 History/Principles of Literary Criticism
The study of selected works in the history of literary criticism, up to and including modern and contemporary movements in criticism. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 366-4 Studies in Critical Approaches to Literature
Addresses specific issues or movements in literary criticism, up to and including the current era. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 368-4 Studies in Drama
The literary study of selected dramatic works. May be organized by various eras, issues or approaches. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 369-4 Studies in Prose Genres
The study of selected texts in such genres as the essay, biography, autobiography, travel narrative and journalistic writing. May include works which challenge the boundary between fiction and non-fiction. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 370-4 Studies in Language
The study of linguistic, pragmatic and social theories of language. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 371-4 Writing: Theory and Practice
Students will engage in theoretically informed practice of writing in various non-academic genres. Emphasis will be placed on the kinds of writing that students are likely to use after graduation. Prerequisite: 60 university credit hours; ENGL 210 or permission of the department.

ENGL 372-4 Creative Writing
A seminar-workshop in creative writing for students who have an interest and some writing experience in poetry, fiction, or drama. The emphasis of the course may vary from semester to semester. Prerequisite: two 100 division English courses and two 200 division English courses, one of which must be ENGL 204 or 205. Particular prerequisites: Permission of the department is required. Students may take more than one course in creative writing but may count only one of them toward English honors or a major or minor in English.

ENGL 375-4 History and Principles of Rhetoric
The advanced study of the history and theory of rhetoric. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205. Recommended: ENGL 214.

ENGL 376-4 Special Studies A
Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 377-4 Special Studies B
Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 378-4 Special Studies C: Single Author
Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 380-4 Literature in Translation
A study of selected texts across world literatures not originally written in English. May include the Bible; may be organized by themes, historical periods, countries of origin, authors, or texts; and may be approached as comparative literature. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 382-4 Cultural Studies
This course will investigate interconnections between literature and culture through the study of selected texts. May be organized according to particular theoretical approaches, issues or historical periods. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 383-4 Studies in Fantasy and Popular Literature
This course may concentrate on a genre of fantasy such as the Gothic novel or dystopian fiction, or on various genres associated with popular literature such as the detective novel, the novel of international intrigue, or romance. The works will be considered in relation to literary theory, and may be organized by various different critical issues and approaches. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205. Students with credit for ENGL 363 may not take this course for further credit.

ENGL 387-4 Studies in Children's Literature
The study of selected works of children's literature from different periods and places. The works will be considered in relation to literary theory, and may be organized by different critical issues or approaches. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205. Students with credit for ENGL 367 may not take this course for further credit.

ENGL 392-4 World Literature in English I
Addresses international literatures in English, selected and organized according to specific topics. As distinct from ENGL 292, this course may be wholly concerned with writing from Canada, Britain and the United States, although it will be distinguished from other courses by its primary focus on such issues as nationalism, post-colonialism and multiculturalism. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205.

ENGL 441-4 Directed Studies A
Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205. Admission is by permission of the instructor and the department.

ENGL 442-2 Directed Studies B
Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205. Admission is by permission of the instructor and the department.

ENGL 443-4 Directed Studies C
Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205. Admission is by permission of the instructor and the department.

ENGL 444-2 Directed Studies D
Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205. Admission is by permission of the instructor and the department.

ENGL 445-4 Directed Studies E
Prerequisite: credit or standing in any two of ENGL 101, 102, 103, 104, 105, and 199, and two 200 division English courses, one of which must be ENGL 204 or 205. Admission is by permission of the instructor and the department.

ENGL 446-2 Directed Studies F
Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205. Admission is by permission of the instructor and the department.

ENGL 461-0 Practicum I
First semester of work experience in the English Co-operative Education Program. Prerequisite: normally 30 semester hours with a CGPA of 3.0; credit or standing in any two of ENGL 101, 102, 103, 104, 105, and 199, and two 200 division English courses, one of which must be ENGL 204 or 205. Students should apply to the Faculty of Arts co-operative education co-ordinator by the end of the third week of the semester preceding the employment semester.

ENGL 462-0 Practicum II
Second semester of work experience in the English Co-operative Education Program. Prerequisite: successful completion of ENGL 461 and normally 45 semester hours with CGPA of 3.0; credit or standing in any two of ENGL 101, 102, 103, 104, 105, and 199, and two 200 division English courses, one of which must be ENGL 204 or 205. Students should apply to the Faculty of Arts co-operative education co-ordinator by the end of the third week of the semester preceding the employment semester.

ENGL 463-0 Practicum III
Third semester of work experience in the English Co-operative Education Program. Prerequisite: successful completion of ENGL 462 and normally 60
ENGL 464-0 Practicum IV
Fourth semester of work experience in the English Co-operative Education Program. Prerequisite: successful completion of ENGL 463 and normally 75 hours with CGPA of 3.0; credit or standing in any two of ENGL 101, 102, 103, 104, 105, and 199, and two 200 division English courses, one of which must be ENGL 204 or 205. Students should apply to the Faculty of Arts co-operative education co-ordinator by the end of the third week of the semester preceding the employment semester.

ENGL 494-4 Research Seminar for Honors Graduate Essay
This course is intended for the research and preparation of materials for the honors graduating essay. In addition to regular meetings with their supervisors, students will attend a scheduled research seminar. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205. Open only to students who have been accepted into the honors program. The student must complete this course before taking ENGL 496. Admission is by permission of the instructor and the department.

ENGL 496-4 Honors Graduating Essay
In addition to regular meetings with their supervisors, students will attend a scheduled research seminar. Prerequisite: two 100 division English courses, and two 200 division English courses, one of which must be ENGL 204 or 205. Open only to students who have been accepted into the honors program. Admission is by permission of the instructor and the department.

ENGL 805-5 Approaches to Individual Authors
May deal with one or more authors from a particular theoretical perspective.

ENGL 808-5 Theoretical Approaches to Print Culture, 1700-1900
An introduction to the history and variety of theoretical approaches to the study of print culture 1700-1900. Students enrolled in the Print Culture 1700-1900 program are required to take this course.

ENGL 810-5 Graduate Research Seminar Part I
The Graduate Professional Development Seminar (ENGL 810/811) is required of both MA and PhD students. All incoming students will take 810 in their first year. ENGL 810 has two components. The first component is to introduce students to the basic tools of advanced study and to acquaint them with the kinds of research being done in the department of faculty and graduating students. There will also be workshops on topics such as drafting and submitting proposals, applying for grants, presenting papers, publishing, choosing graduate schools, and employment possibilities, including interview situations. The second component consists of six 2-hour workshops for new teaching assistants which will focus on the teaching of writing in literature courses. Required. Satisfactory/unsatisfactory.

ENGL 815-5 Graduate Research Seminar II
Conclusion of 810 consisting of research workshops for students near completion of their research projects. Required. Satisfactory/unsatisfactory.

ENGL 841-5 Directed Readings A
ENGL 842-5 Directed Readings B
ENGL 843-5 Directed Readings C
ENGL 888-6 MA Thesis
ENGL 899-6 MA Paper or Project
ENGL 999-6 MA Paper or Project

EVSC 401-3 Ethnobotany of British Columbia
Prerequisite: will vary according to the topic.

EVSC 491-3 Advanced Field Studies in Environmental Science
Apply the theories and methods of environmental science to evaluate quantitatively the environmental impact of an industry on a selected site. The site can vary from year to year. This laboratory course brings together students from all streams of the Environmental Science Program, and the field work will be conducted by small groups of students. Prerequisite: standing in the environmental science program, with at least 30 upper division credits, or with permission of the program director.

First Nations Studies FNST
Faculty of Arts and Social Sciences

FNST 101-3 The Cultures, Languages and Origins of Canada's First Peoples
An introduction to the nature and goals of First Nations studies as an academic discipline; survey of prehistory, traditional cultures and aboriginal languages of Canada's First Nations.

FNST 201-3 Canadian Aboriginal Peoples Perspective on History
An examination of fact and ideology in history and historic events involving contact between native and European peoples. The course will also address questions of research methodologies in studying Native/European relations, such as the evaluation of oral history and written ethnohistorical sources. An additional focus will be on gender as it influences perspectives. Pre/corequisite: FNST 101.

FNST 301-3 Issues in Applied First Nations Studies Research
Involves a survey and examination of method, theory and related topics associated with contemporary First Nations Studies research in applied contexts. Ethical conduct and protocols for working within First Nations communities are reviewed. (lecture/seminar) Prerequisite: FNST 101 and 201. Recommended: SA 255 or equivalent lower division research methods course.

FNST 322-3 Special Topics First Nations Studies
Prerequisite: will vary according to the topic.

FNST 332-3 Ethnobotany of British Columbia
First Nations
This course is an introduction to the study of plant knowledge and use by First Nations peoples in British Columbia. It provides students with information about the role of plants in First Nations cultures including such areas as foods, medicines, technology, ceremony, ecological indicators, and within First Nations’ knowledge and classification systems. Special focus may be placed on the ethnobotany of one or more Aboriginal groups or culture areas. Prerequisite: FNST 101 or by permission of the department.

FNST 401-3 Aboriginal Rights and Government Relations
An examination of First Nations and aboriginal peoples’ perspectives on political, social and legal issues involving their rights as first citizens of Canada and North America, and the practical and political relations with various levels of government. Issues examined include: aboriginal rights and title questions, self government models and concepts, constitutional matters, the impact of federal government policies, including their impact on women’s lives, and native community and First Nations politics. Prerequisite: FNST 101 and 201. Recommended: POL 221.

FNST 402-3 The Discourse of Native Peoples
Style and content of aboriginal people’s discourse about their culture, world view, history and matters
FNST 403-3 Indigenous Knowledge in the Modern World
This course explores the subject of traditional indigenous knowledge and its contemporary implications for First Nations programs in such areas as economic development, ecotourism, spiritualism, language retention, biodiversity, ethnoscence, environmentalism, and heritage conservation. First Nations perspectives on patents, copyrights, and other creative products from traditional culture will also be examined through lecture, guest speakers and seminar presentation. Prerequisite: FNST 201 or by permission of the department.

FNST 442-3 Directed Readings First Nations Studies
Directed readings for upper level students in First Nations Studies who wish to study selected topics in depth. Prerequisite: nine credit hours in First Nations Studies. Corequisite: permission of an instructor and program chair.

French FREN
Faculty of Arts and Social Sciences
FREN 120-3 French for Beginners
An introduction to basic vocabulary, grammatical structures, and speech patterns. Emphasis on oral expression and listening comprehension. Instruction in class and in lab. Prerequisite: never studied or experienced French before. Students with credit for FREN 099 may not take this course for further credit.

FREN 121-3 Introductory French I
A comprehensive introduction to basic grammatical structures, vocabulary and pronunciation. Emphasis on oral communication skills. Instruction in class and in lab. Prerequisite: FREN 099 or 120 or less than grade 11 French (or equivalent based on placement test). Students with credit for FREN 100 may not take this course for further credit.

FREN 122-3 Introductory French II
Continuation of FREN 121. Designed to improve speaking and writing abilities by introducing more complex structures and vocabulary. Instruction in class and in lab. Prerequisite: FREN 100 or 121 or grade 11 French (or equivalent based on placement test). Students with credit for FREN 101 may not take this course for further credit.

FREN 198-3 French for Reading Knowledge I
For students with little or no background in French who wish to acquire the ability to read periodicals, journals and basic literary and academic texts. May not be taken by students with French 12 or with FREN 151 (or 210) or higher (or their equivalents).

FREN 199-3 Writing French I - Spelling and Grammar
An alternative to FREN 211 for francophone students who need practice in elementary grammar, composition and spelling. Offered as a correspondence course only. Prerequisite: fluency in French. Students will be accepted only after an interview (which may be by telephone) with a faculty member in the Department of French. Students may not get credit for both FREN 201 or 211 and 199.

FREN 210-3 Intermediate French I
Designed to consolidate and expand knowledge of the language with emphasis on oral expression and listening comprehension to develop communicative skills. Instruction in class and in lab. Prerequisite: FREN 101 or 122 or grade 12 French (or equivalent based on placement test). May not be taken by students from French immersion, programme cadre or IB students. Students with credit for FREN 151 may not take this course for further credit.

FREN 211-3 Intermediate French II
Designed to improve listening and reading comprehension. Emphasis on accuracy in oral and written communication in class and in lab. Prerequisite: grade 12 French with a grade of A or FREN 151 or 210 (or equivalent based on placement test). May not be taken by FREN 212 or 216 students. Students with credit for FREN 201 may not take this course for further credit.

FREN 212-3 French for Immersion Program Students
Designed for French immersion program students who wish to refine their oral and written language competence. Instruction in class and in lab. Prerequisite: for French immersion program students or those who have studied in a Francophone milieu. Placement test required. Students with credit for FREN 201 or 211 or 216 may not take this course for further credit.

FREN 215-3 Intermediate French: Oral Practice
Designed to develop listening comprehension and oral expression. Instruction in class and in lab. Prerequisite: FREN 201 or 211. May be taken concurrently with FREN 212. Students with credit for FREN 205, 300 or 330 may not take this course for further credit.

FREN 217-3 French Pronunciation
Designed to improve pronunciation. Instruction in class and in lab. Prerequisite: FREN 201 or 211. May be taken concurrently with FREN 212. Students with credit for FREN 312 may not take this course for further credit.

FREN 221-3 French Writing I
A reading and writing course with emphasis on vocabulary and logical structure in written expression. Instruction in class, in lab and online. Prerequisite: FREN 201 or 211. May be taken concurrently with FREN 212. Students with credit for FREN 312 may not take this course for further credit.

FREN 222-3 French Writing II
Focusing on grammar and grammatical analysis, and the process of writing. Instruction in class, in lab and online. Prerequisite: FREN 202 or 221, or, with a grade of A, FREN 211 or 210. In the latter case, FREN 211 and 221 may be taken concurrently. Students with credit for FREN 202 may not take this course for further credit.

FREN 225-3 Topics in French Language
The topic will vary: French for Business, French for Professional Purposes, Practice in Translation, or French and the Media. Prerequisite: FREN 206 or 222 (or equivalent based on placement test). Students with credit for FREN 220 may not take this course for further credit.

FREN 230-3 Introduction to French-Canadian Literature
This will serve to introduce the student to French Canadian thought through literature and the arts. The course will be conducted in French. Prerequisite: any one of FREN 206, 222, 299 or 301.

FREN 240-3 Introduction to French Literature: Modern French Literature
This will serve to introduce the student to French contemporary thought through literature. This course will be conducted in French; the object is to acquire a reading facility and a critical appreciation of modern French literature. Prerequisite: any one of FREN 206, 222, 299 or 301.

FREN 270-3 Introduction to French Linguistics I
An introduction to the phonetics of French and to the linguistic concepts upon which phonological and morphological descriptions of French are based. Prerequisite: FREN 206 or 222, or FREN 301.

FREN 299-3 Writing French II: Intermediate Composition
An intermediate composition course to help students with the techniques of writing essays in French, both at the grammar level and at the composition level. Prerequisite: FREN 199 with C+ minimum or 202. May be taken concurrently with other French courses at the 200 or 300 level except by students who are taking or have completed FREN 301. Does not count towards the requirements for French minor, major, honors or certificate programs.

FREN 300-3 Advanced French: Oral Practice
Designed to develop ability in oral expression. Instruction in class and in lab. Prerequisite: FREN 206 or 222 or, with a grade of A and permission of instructor, FREN 205 or 215.

FREN 301-3 Advanced French Composition
A writing course to improve organization and argumentation, paragraph structures and lexical accuracy. Instruction in class and online. Prerequisite: FREN 206 or 222, or, with a grade of A, FREN 202 or 221.

FREN 304-3 Advanced French Grammar
Continuation of FREN 222, with emphasis on grammatical analysis. Instruction in class and online. Prerequisite: FREN 206 or 222 (or equivalent based on placement test). Students with credit for FREN 302 may not take this course for further credit.

FREN 307-3 French Vocabulary
Designed to expand vocabulary and optimize the use of dictionaries and electronic language resources. Instruction in class and in lab. Prerequisite: FREN 206 or 222. Students with credit for FREN 311 may not take this course for further credit.

FREN 320-3 Field School: Special Topics in French I
Selected studies in French language, linguistics, literature or civilization. Prerequisite: FREN 206 or 222, and FREN 230 or 240, and 270. May be taken only by field school participants. Corequisite: FREN 320, 322.

FREN 321-3 Field School: Special Topics French II
Selected studies in French language, linguistics, literature or civilization. Prerequisite: FREN 206 or 222, and FREN 230 or 240, and FREN 270. May be taken only by field school participants. Corequisite: FREN 320, 322.

FREN 322-3 Field School: Special Topics French III
Selected studies in French language, linguistics, literature or civilization. Prerequisite: FREN 206 or 222, and FREN 230 or 240, and FREN 270. May be taken only by field school participants. Corequisite: FREN 320, 322.

FREN 330-3 Francophone World
A multidisciplinary analysis of socio-cultural aspects of French speaking countries, involving written work and oral participation. Prerequisite: FREN 206 or 222, and FREN 230 or 240, and 270. May be taken only by field school participants. Corequisite: FREN 320, 321.

FREN 385-3 Francophone World
A study of representative and significant works (from one or more French speaking countries) from literature and cinema originally produced in French in their socio-cultural context. Prerequisite: knowledge of French is not required; two courses in literature. This course does not count towards the degree requirements for an extended minor, major or honors minor.
in French. With permission of the Department of English, may count towards the requirements of an English major or honors.

**FREN 360-4 Intermediate French Literature**
Introduction to critical analysis based on the study of texts from the Middle Ages to the 19th century. Prerequisite: FREN 230 or 240.

**FREN 370-4 Introduction to French Linguistics II**
An introduction to the fundamental concepts and techniques used in the linguistic analysis of the morphosyntax, lexicology and semantics of French. Prerequisite: FREN 270.

**FREN 410-3 French Stylistics**
Introduction to the application of linguistic concepts, pragmatics, discourse analysis, translation theory to the study of a variety of French texts. Prerequisite: all of FREN 301, 360 and 370. Students with credit for FREN 406 may not take this course for further credit.

**FREN 411-3 Aspects of French Morphology**
Analysis of selected topics of the morphological system of modern French. Prerequisite: FREN 301 and 370.

**FREN 412-3 Aspects of French Syntax**
Analysis of selected grammatical problems in French syntax. Prerequisite: FREN 301 and 370.

**FREN 413-3 Aspects of French Phonetics and Phonology**
Analysis of selected topics of the sound system of modern French. Prerequisite: FREN 301 and 370.

**FREN 415-3 Aspects of French Semantics and Lexicology**
Study of diachronic and synchronic organization of semantics and lexical fields. Formation and evolution of French vocabulary. Prerequisite: FREN 301 and 370. Students with credit for FREN 420 may not take this course for further credit.

**FREN 416-3 French Applied Linguistics**
This course studies the applications of various branches of linguistics to the problem of second language acquisition and the teaching of French as a second language. Prerequisite: FREN 301 and 370. Students with credit for FREN 310 may not take this course for further credit.

**FREN 423-3 Topics in the History of French**
Studies of selected topics in French historical linguistics. Subject matter may include external history, history of sound changes, morphological and syntactic changes. Prerequisite: FREN 301 and 370. Students with credit for FREN 407 and/or 408 may not take this course for further credit.

**FREN 424-3 Topics in French Linguistics**
The subject matter will vary according to faculty and student interests. Selected aspects of French linguistic theories as they apply to the study, teaching and/or learning of French. Prerequisite: FREN 301 and 370. Students with credit for FREN 414 may not take this course for further credit.

**FREN 425-3 Topics in the Varieties of French**
Study of selected topics in French dialectal variation. Subject matter may include, but is not limited to, French Dialects, Canadian French and French Creoles. Prerequisite: FREN 301 and 370. Students with credit for FREN 421 and/or 422 may not take this course for further credit.

**FREN 430-3 French-Canadian Novel and Theatre**
Prerequisite: FREN 301 and 360.

**FREN 452-3 Topics in French Culture**
Study of selected topics relating to French cultures. Topics may include, but are not limited to, French culture in British Columbia, Studies in Bilingualism, Sociolinguistics of French. (seminar) Prerequisites: FREN 301, FREN 230 or FREN 240, and FREN 270

---

**FREN 461-3 French Medieval Literature**
Medieval French literature with special emphasis on a genre, on an author, or on a region. Prerequisite: FREN 301 and 360.

**FREN 462-3 French Renaissance Literature**
A study of French Renaissance works and literary genres in their historical and cultural contexts. Prerequisite: FREN 301 and 360.

**FREN 463-3 Literature of the Seventeenth Century**
Prerequisite: FREN 301 and 360.

**FREN 465-3 Literature of the Eighteenth Century**
Prerequisite: FREN 301 and 360.

**FREN 467-3 Romanticism**
Prerequisite: FREN 301 and 360.

**FREN 470-3 Realism to Naturalism**
Prerequisite: FREN 301 and 360.

**FREN 472-3 The Contemporary Theatre**
Prerequisite: FREN 301 and 360.

**FREN 474-3 French Poetry**
Prerequisite: FREN 301 and 360.

**FREN 475-3 The Contemporary Novel**
Prerequisite: FREN 301 and 360.

**FREN 476-3 Interdisciplinary Approaches in French Literature**
A study of Francophone literature and francophone literature from an interdisciplinary point of view. Topics will vary to include different disciplines: history, cultural studies, gender studies, psychology or the study of the relationships between literature and other media, i.e. cinema. Prerequisite: FREN 301 and 360.

**FREN 480-2 Seminar I**
Study in depth of an area covered by a French literature or linguistics course in the 400 division. Prerequisite: FREN 230 or 240, and FREN 360; or FREN 301 and FREN 306 or 370, or by permission of the course chair. To be taken in conjunction with a 400 division course in French linguistics or literature.

**FREN 491-3 Readings in French Linguistics and/or Literary Criticism**
Guided readings in selected topics. May only be taken during the last semesters of study; required as a preparation for the honors essay but may be taken by other students with consent of the instructor.

**FREN 492-3 Honors Essay**
Candidates for honors will be required to submit a major paper on a topic of a comprehensive nature in literature or linguistics to be approved by the course chair. Prerequisite: FREN 491 and at least nine 400 division courses in French literature and/or French linguistics.

**FREN 803-5 Research Methods in French Linguistics and/or French Literature**
The study of research methods and tools used in French linguistics and/or French literature. Planning a long term research project.

**FREN 804-5 Topics in the Structure of French I**
Explores a selection of classic problems of the structure of French (phonology, morphology, syntax, lexicology or semantics) applying a variety of theoretical viewpoints, from a diachronic or synchronic perspective.

**FREN 805-5 Topics in the Structure of French II**
Explores, from a variety of diachronic or synchronic theoretical viewpoints, a selection of classic problems of the structure of French not covered in FREN 804.

**FREN 806-5 Topics in the Acquisition of French**
New trends and theoretical developments in the acquisition of French as a second language. Study of the contribution of linguistic theory to the teaching and learning of French.
Sciences

GDST 200-3 Thinking About Gender
An introduction to the major critical debates on gender from an interdisciplinary and cross-cultural perspective. Topics include the construction and regulation of gender and the relation between gender and ideologies of sexuality, race, class and nation.

General Studies GS
Faculty of Arts and Social Sciences

GS 420—429 Selected Topics for Integrated Studies
These selected topics are offered only through integrated studies programs within the Bachelor of General Studies degree. They explore fields of professional practice through interdisciplinary approaches not available in regular academic departments. Variable credit hours: 3, 4. Prerequisite: admission to an integrated studies program.

Geography GEOG
Faculty of Arts and Social Sciences

GEOG 100-3 Human Geography
This course introduces the basic systematic approaches in the study of contemporary human geography including the distribution of population, spatial aspects of economic, cultural and political development, landscape and resource study.

GEOG 102-3 World Problems in Geographic Perspective
Current world-scale problems are examined in their regional and global contexts, with emphasis being placed on the importance of dynamics of the natural environment in human affairs.

GEOG 111-3 Physical Geography
An introduction to landforms, climates, soils and vegetation; their origins, distributions, interrelationships and roles in the ecosystem. Laboratory work and field trips are included.

GEOG 162-3 Canada
The geographical character of Canada; the Canadian environment; regional differences in socio-economic growth.

GEOG 213-3 Geomorphology I
An examination of landforms, processes, laws, and theories of development; types and distributions. Prerequisite: GEOG 111 or EASC 101.

GEOG 214-3 Climatology I
A review of the basic principles and processes involved in physical and dynamic climatology, with particular emphasis on global distributions and change. Prerequisite: GEOG 111.

GEOG 215-3 Biogeography
An examination of the abiotic and biotic factors that control the distribution and development of plant communities, including climatic and geological change. Prerequisite: GEOG 111. Students granted credit for GEOG 215 may not be granted credit for BISC 204.

GEOG 221-3 Economic Geography
The basic concepts of economic geography, involving consideration of the spatial organization and development of economic and resource based systems. Prerequisite: GEOG 100.

GEOG 241-3 Social Geography
Systematic consideration of the spatial and environmental bases of societies, in historical and cultural perspective. Prerequisite: GEOG 100.

GEOG 250-3 Cartography I
An introduction to the interpretation of maps and air photographs. Prerequisite: GEOG 100 or 221 or 241; and 111.

GEOG 251-3 Quantitative Geography
An introduction to basic quantitative methods and software for the solution of geographic problems. Topics include spatial data measurements, central tendency measures, simple probability theory and distributions, inferential methods, and correlation analysis. Prerequisite: GEOG 100 or 221 or 241; and 111.

GEOG 253-3 Aerial Photographic Interpretation
Uses of aerial photography and air photo interpretation in geography. The course is divided into four sections: (1) technical background regarding aerial photography and photo interpretation; (2) air photo interpretation and mapping; (3) application of air photo interpretation; and (4) introduction to remote sensing. Prerequisite: GEOG 100 or 221 or 241; and 111.

GEOG 255-3 Geographical Information Science I
A basic overview of Geographical Information Systems and Science; GIS software, hardware, data structures and models; spatial data, operations and algorithms; practical applications and limitations. Prerequisite: GEOG 100 or 111 or permission of instructor. Students with credit for GEOG 354 may not take this course for further credit.

GEOG 261-3 Introduction to Urban Geography
This course will introduce basic concepts in the study of urban geography by systematically identifying and examining major components of urban structure. Prerequisite: GEOG 100 or 102 or 30 credit hours.

GEOG 263-3 Selected Regions
A study of the geographical character of a major world region. Prerequisite: At least nine credit hours. This course may not be counted more than once toward a degree.

GEOG 264-3 Canadian Cities
An introduction to urbanization in Canada. Topics addressed will include Canadian urbanization as compared with other nations, especially the United States, metropolitan centres, resource towns, and the internal structure of cities. Prerequisite: GEOG 100 or 162 or permission of instructor.

GEOG 265-3 Geography of British Columbia
An examination of the physical landscape, the migration process, resource exploitation and the development of the settlement patterns. Prerequisite: at least nine credit hours.

GEOG 300-4 Possible Worlds: The Rise of Geographical Thinking
A survey of geographical thinking within the Western tradition, from the Greeks to modern times. This course looks at efforts, both mainstream and eccentric, to describe and explain the world (places, peoples, environments, Earth). Extensive use of primary texts. Prerequisite: GEOG 100 or 111 or EASC 101. Students with credit for GEOG 212 may not take this course for further credit.

GEOG 312-4 Geography of Natural Hazards
An introduction to the occurrence and origin of natural hazards such as volcanic eruptions, landslides, etc. Interaction between the relevant natural processes and society will be examined, as well as prediction of natural events and the amelioration of the effects of such events within different cultural contexts. Prerequisite: GEOG 111 or EASC 101. Students with credit for GEOG 212 may not take this course for further credit.

GEOG 313-4 Geomorphology II
Intermediate analysis in fluvial and coastal geomorphology with particular reference to British Columbia. Prerequisite: GEOG 213.

GEOG 314-4 Climatology II
An introduction to atmospheric science with emphasis on processes in the boundary layer; examination of the radiation, energy and water balances; description and analysis of heat and mass transfer. Prerequisite: GEOG 214 or permission of instructor. Recommended: MATH 151 and 152 or MATH 154 and 155 or MATH 157 and 158.

GEOG 315-4 Regional Ecosystems
Physical and biological characteristics of regional ecosystems; historical evolution of biomes, management of biotic resources. Prerequisite: GEOG 215 or BISC 204.

GEOG 316-4 Ecosystem Biogeochemistry
Introduction to the cycling of essential chemical elements through ecosystems. Interactions among biological, hydrological, and geological controls on the structure and function of ecosystems and the spatial-temporal scales of elemental cycling are emphasized. Environmental problems resulting from disturbance to natural equilibria in the elemental cycles are examined. Prerequisite: GEOG 215 or BISC 204 or permission of the instructor.

GEOG 317-4 Soil Science I
An introduction to the study of soils: physical, chemical and biological properties of soils; soil...
COURSES

formulation, description, classification, survey and use. Field and laboratory techniques of soil analysis. Prerequisite: GEOG 111 and one of GEOG 213, 214, 215, CHEM 121.

GEOG 322-4 World Resources
An analysis of the use and development of natural resources from a geographic, economic and institutional perspective. Prerequisite: at least 30 credit hours including GEOG 221.

GEOG 323-4 Industrial Location
An examination of the factors affecting industrial location and the geographic organization of production systems within and among firms from the perspectives of national, regional and urban development. Prerequisite: GEOG 221.

GEOG 324-4 Geography of Transportation
An empirical and theoretical examination of the geographical aspects of transportation systems. Prerequisite: GEOG 221 and 241.

GEOG 325-4 Geography of Service Activities
Central place theory, marketing and retail location, urban economic base, land use models, and tourism. Prerequisite: GEOG 221 or 261.

GEOG 327-4 Geography of Tourism and Outdoor Recreation
Factors underlying the changing geography of tourism and outdoor recreation. Issues of demand, supply and impact are examined. Prerequisite: GEOG 221 or 241, or permission of the instructor.

GEOG 351-4 Cartography and Visualization
Elements of cartographic analysis, design and visualization, with an emphasis on digital mapping, animation techniques, cartographic software and internet mapping. Prerequisite: GEOG 255.

GEOG 352-4 Spatial Analysis
Advanced quantitative techniques for spatial analysis of geographic data and patterns. Topics include geostatistics, spatial interpolation, autocorrelation, kriging, and their use in geographic problem solving with spatial analysis software. Prerequisite: GEOG 251 or STAT 270 or 201.

GEOG 353-4 Remote Sensing
Applied remote sensing and image analysis. Topics include air photo interpretation, multispectral and color photography, thematic imagery, multispectral scanners, microwave applications, satellite imagery. The relation of remote sensing information and Geographic Information Systems is discussed. Digital interpretation and photogrammetric analysis will be emphasized. Prerequisite: GEOG 253.

GEOG 355-4 Geographical Information Science II
An examination of technical components of GIS. Topics include spatial representations, generalization and data management; computational algebra and set theory; spatial databases and terrain models. Prerequisite: GEOG 255.

GEOG 356-4 Cognitive Cartography
Analyzes the map-user interface, the basic perceptual and cognitive processes used by the map reader, and the principles of design and presentation which lead to effective map use. Prerequisite: GEOG 250 or 253.

GEOG 362-4 Geography of Urban Development
This course will apply the principles of urban geographical analysis to the study of urbanization as exemplified in the development of cities in Europe and North America. Prerequisite: at least 30 credit hours including either GEOG 241 or 261.

GEOG 369-4 Human Microgeography
An examination of human interaction with physical environment, focusing on the individual as the unit of analysis, with special emphasis upon designed environments. A series of field studies will be required of each student. Prerequisite: GEOG 241.

GEOG 375-4 Historical Geography I
Geographical factors in the settlement of Canada and the United States; the role of the frontier; and geographical factors in the changing nature of the perception of resources. Prerequisite: GEOG 241.

GEOG 381-4 Political Geography
Theoretical approaches to problems of the interactions of political decisions and power structures with territorial organization. Prerequisite: GEOG 241.

GEOG 382-4 Population Geography
A survey - from geographic perspective - of data, concepts, theories, and debates in the study of population. Particular concern for population numbers, fertility, mortality, and migration over space and time. (lecture/tutorial) Prerequisite: GEOG 221 or 241.

GEOG 383-4 Regional Development and Planning I
Theories and concepts of regional development and planning in the advanced capitalist and third worlds; methods of spatial analysis. Prerequisite: GEOG 221 and 241.

GEOG 385-4 Agriculture and the Environment
An examination of the relationship between agricultural production systems and the biophysical environment, with emphasis on the origins of, and potential solutions to, agri-environmental degradation. Prerequisite: GEOG 221.

GEOG 386-4 Geography, Health and Health Care
An introduction to the study of health and health care issues from a geographic perspective covering: major spatial influences shaping the health status of populations, the distribution of disease, and the delivery of health care services. Prerequisite: GEOG 241 or GERO 300 or SA 218.

GEOG 387-4 Geography and Gender
Geographical perspectives on gender and sexuality. This course investigates feminist theory in geography and its analysis of home, city, nation, state, global economy, colonialism, and migration. Prerequisite: GEOG 241.

GEOG 389-4 Human Ecology: Human Relations to Nature
An examination of concepts and theories relating to the way human populations are shaped by, and shape, their biophysical environments in subsistence, dualistic and capitalist societies. For the last focus, attention is directed to the origins of contemporary environmental degradation and the capacity of various ‘green’ philosophies to amend current human-environment relations. Prerequisite: GEOG 241 or EVSC 200 (formerly ENPL 200).

GEOG 402-0 Geography Practicum III
This is the third semester of work experience in the Geography Co-operative Education Program. Prerequisite: GEOG 300 and acceptance by the Science and Environment co-op co-ordinator in the Science and Environment co-op program. Students should apply to a co-op co-ordinator in the Science and Environment co-op program by the end of the third week of the preceding semester.

GEOG 403-0 Geography Practicum IV
This is the last semester of work experience in the Geography Co-operative Education Program. Prerequisite: GEOG 402 and acceptance by the Science and Environment co-operative education program. Students should apply to a co-op co-ordinator in the Science and Environment co-op program by the end of the third week of the preceding semester.

GEOG 404-2 Directed Readings
Designed for upper level geography major and honors students who wish to continue research started in conjunction with an earlier course. Prerequisite: permission to enter directed readings courses requires written consent of both the faculty member willing to supervise the research, and the chair of the department.

GEOG 405-4 Directed Readings
Designed for upper level geography major and honors students who wish to continue research started in conjunction with an earlier course. Prerequisite: permission to enter directed readings courses requires written consent of both the faculty member willing to supervise the research, and the chair of the department.

GEOG 409-0 Geography Practicum V
This is an optional semester of work experience in the Geography Co-operative Education Program. Prerequisite: GEOG 403 and acceptance by the Science and Environment co-operative education program. Students should apply to a co-op co-ordinator in the Science and Environment co-op program by the end of the third week of the preceding semester.

GEOG 411-4 Hydrology II
An examination of hydrologic processes via experimental and observational studies; measurement and analysis of hydrologic data; application of hydrologic models; recent research developments in selected sub-fields of hydrology. Prerequisite: one of GEOG 311, 313, or 314; one of GEOG 251, STAT 101, 102 or 203 (formerly 103).

GEOG 412-4 Glacial Processes and Environments
A critical evaluation of glacial processes and environments; application of field techniques. Prerequisite: GEOG 313; EASC 201 recommended. Students who completed GEOG 412 prior to fall 1996 may also take this course for credit.

GEOG 413-4 Geomorphology III
Advanced treatment of topics in glacial and fluvial geomorphology with emphasis on current research problems. Prerequisite: GEOG 313.

GEOG 414-4 Climatology III
An examination of recent advances in climatology and application of atmospheric process models. Prerequisite: GEOG 314.

GEOG 415-4 Advanced Biogeography
A survey of advanced biogeographic theory, and techniques of vegetation analysis. The application of these theories and techniques to biotic resources management is also examined. Prerequisite: GEOG 315.

GEOG 416-4 Pleistocene Geography
An examination of the physical geomorphic, pedologic and biotic processes and evidence from human geography of the period will be studied as they affect landscape changes. Prerequisite: one of GEOG 213, 214, 215, 317.

GEOG 417-4 Soil Science II
Advanced treatment of topics in soil science: soil physics, soil chemistry, soil biology, soil classification and/or forest soils. Prerequisite: GEOG 317.

GEOG 420-4 Comparative Cultural Geography
A comparative study of selected world cultures and landscapes in the light of recent theoretical developments in geography. Prerequisite: at least 60 credit hours including eight hours of upper division geography courses.

GEOG 422-4 Theories and Practices of Development
A geographic study of ‘development’ and ‘underdevelopment’ with particular references to selected lesser developed regions. Prerequisite: at least 60 credit hours including GEOG 111, 221, and 241. This course is identical to LAS 422 and students cannot take both courses for credit.
GEOG 426-4 Industrial Change and Local Development
Relationships between multinational corporations and local development with reference to resource based towns in British Columbia. An analysis of the implications of changes in employment, organization, technology and resource utilization for community economic development. Prerequisite: at least 60 credit hours including GEOG 323 or 383.

GEOG 427-4 Selected Topics in Geography of Tourism
Selected topics in the geography of tourism. Topics emphasize policy, planning and management issues associated with tourism. Prerequisite: GEOG 327, or permission of the instructor.

GEOG 428-4 World Forests
Comparative analysis of forest industries, ecosystems and policies, and their lessons for forest management in British Columbia. Topics include tropical deforestation and carbon sequestration, the wilderness debate, and forests in culture and the visual arts. (lecture/seminar). Prerequisite: GEOG 315, or 322, or 389.

GEOG 441-4 Cities, Space, and Politics
An evaluation of the nature of urbanization, having specific reference to theories of urban spatial structure and to comparisons of urbanization in Canada and abroad. Prerequisite: at least 60 credit hours including GEOG 382.

GEOG 444-4 Regional Development and Planning II
The evaluation of regional development planning and practice; case study analysis of regional development programs with particular reference to Canadian experience. Prerequisite: 60 credit hours including GEOG 383.

GEOG 445-4 Resource Planning
This course introduces the student to the principles and practices of resource planning within a Canadian context. Special attention is paid to land-use planning as it relates to major resource sectors. Prerequisite: GEOG 322 or 385.

GEOG 446-4 Migration and Globalization
This course explores sites of socio-cultural change in a global context. Particular emphasis is placed on regional and international migration and the territorial and geopolitical bases of conflict. Prerequisite: 60 credit hours including eight hours of upper division geography.

GEOG 448-4 Public Policy, Theory and Human Geog.
This course will outline and explore the contributions that a theoretically informed human geography can make to debates on urban policy and the urban landscape. As will be demonstrated, a geographic perspective can provide a number of critical insights into both empirical and theoretical arenas. Prerequisite: GEOG 301.

GEOG 449-4 Environmental Processes and Urban Development
An examination of environmental processes as they influence, and are influenced by, urban development, with attention to implications for urban policy and planning. Prerequisite: at least 60 credit hours, including at least one of GEOG 351, 354 or 389, or enrolment in either the Post Baccalaureate Program in Community Economic Development or the Post Baccalaureate Program in Urban Studies.

GEOG 451-4 Spatial Modeling
Spatial models for the representation and simulation of physical, human, environmental processes. GIS and spatial analysis software are used in the laboratory for model development, from problem definition and solution to visualization. Prerequisite: GEOG 251 and one of GEOG 351, 352, 353 or 355.

GEOG 453-4 Remote Sensing of Environment
Computational aspects of environmental remote sensing. Topics include digital image processing, image enhancement, sensor systems, statistical extraction, and environmental analysis. Prerequisite: GEOG 352 and 353.

GEOG 455-4 Theoretical and Applied GIS
A critical examination of advanced topics in GIS, such as: boundary definition, expert systems and artificial intelligence, error and uncertainty, and scale in a digital context. Examines social applications and the roles of GIS in society. Students will design original projects, including data acquisition, analysis, and web site development. Prerequisite: GEOG 355 and pre-or co-requisite GEOG 352. Students with credit for GEOG 453 may not take this course for further credit.

GEOG 456-4 Selected Regions
A study of the geographical character of a major world region. (lecture/seminar) Prerequisite: at least 60 credit hours including eight hours of upper division geography courses.

GEOG 462-4 The Geography of the United States
Selected themes in the geography of the United States, addressing the biophysical environment, culture and landscape, resources and livelihood, population and settlement. Prerequisite: at least 60 credit hours including eight hours of upper division geography courses.

GEOG 466-4 Latin American Regional Development
The course introduces students to a geographical analysis of patterns of Latin American development and planning. It is divided into two sections: geographical/historical development of selected countries; and analysis of common Latin American developmental models. A geographical perspective is used which stresses the interconnectedness of spatial and socio-economic structures. Prerequisite: 60 credit hours including eight hours of upper division geography.

GEOG 469-4 The Canadian North and Middle North
Special attention will be given to resource appraisal and utilization, spatial organization, and the consideration of future development; comparisons will be made with experience of sub-arctic development in other parts of the world. Prerequisite: at least 60 credit hours including eight hours of upper division geography courses.

GEOG 470-4 The Geography of Western Canada
A regional geographic interpretation of British Columbia and the Prairies. The physical environment, population, land tenure, regional resource problems, economic development and the settlement process will be examined to explain the geographic character of Western Canada. Prerequisite: at least 60 credit hours including eight hours of upper division geography courses.

GEOG 489-4 Selected Topics
The topics will vary from semester to semester depending on the interests of faculty and students. (lecture/tutorial) Prerequisite: 75 credit hours including 30 credit hours in geography.

GEOG 490-4 Selected Topics
The topics will vary from semester to semester depending on the interests of faculty and students. (lecture/tutorial) Prerequisite: 75 credit hours including 30 credit hours in geography.

GEOG 491-4 Honors Essay
All candidates for honors will be required to submit a major paper on a geographical topic to be selected in consultation with the department. Prerequisite: 105 credit hours and consent of supervisor. See a departmental academic advisor for details.
GERM 201-3 Intermediate German I
Emphasis on oral command, accurate and idiomatic expression; reading of intermediate texts. Prerequisite: GERM 102 (formerly 100) and 103 (formerly 101) or consent of instructor.

GERM 202-3 Intermediate German II
This course continues the work of GERM 201. Considerable emphasis will be placed on reading facility as well as oral and written command of the language. Prerequisite: GERM 201 or consent of instructor.

GERM 300-3 Advanced German: Composition and Conversation
Practice in comprehension, reading, speaking and writing, combined with a review of the essential points of grammar. Prerequisite: GERM 202 or consent of the instructor.

Gerontology GERO
Faculty of Arts and Social Sciences
GERO 300-3 Introduction to Gerontology
Examination of the aging process from a multi-disciplinary perspective. Physical and health factors in aging, economic and vocational factors in aging, family and community relations of older people, social policy and politics of aging. Throughout the course, emphasis will be placed on normal aging. Prerequisite: 60 credit hours.

GERO 301-3 Research Methods in Gerontology
This course examines research methodology applied to the field of gerontology. Key areas covered include: operationalizing gerontological concepts; sampling older populations; longitudinal designs; outcome and process evaluation of seniors’ programs; and elementary data analyses. Prerequisite: 60 credit hours. Recommended: STAT 203 (or equivalent).

GERO 302-3 Health Promotion and Aging
This course includes an examination of the development of contemporary understanding and practice of health promotion. Students will be given the opportunity to explore theories and models designed to explain health related behaviors and the determinants of health. Strategies for behavioral change and development of socio-environmental approaches will be discussed in the context of an aging Canadian population. Prerequisite: 60 credit hours.

GERO 400-4 Seminar in Applied Gerontology
Discussion of current issues in applied gerontology. Interdisciplinary orientation, drawing upon resource persons from within the University and practitioners in the community. Course requirements include participation in a group research project. Prerequisite: 60 credit hours. GERO 300, 301 and two of PSYC 357, GERO 420 or KIN 461.

GERO 401-3 Aging and the Built Environment
Impact of the macro- and microenvironment as it affects the aged. Discussion of planned housing and institutional living arrangements, territoriality and the need for privacy, home range and use of space, urban planning, responsive design of housing and care facilities, effects of relocation and institutionalization. Prerequisite: 60 credit hours. Recommended: GERO 300.

GERO 402-3 Drug Issues in Gerontology
Considers pharmacological issues as they apply to older people, uses and abuses of commonly prescribed and non-prescribed medication; medication reviews; government subsidy programs. Prerequisite: 60 credit hours. GERO 300.

GERO 403-3 Counselling Issues with Older Adults
An examination of the ways of adapting counselling theory and practice to meet the needs of older adults and their families. Emphasis will be placed on counselling techniques and outcomes appropriate to the needs of persons living independently, with their families, or in institutional settings. Prerequisite: GERO 300 and PSYC 357 or GERO 420.

GERO 404-3 Health and Illness in Later Life
An examination of issues related to health and illness among older adults, drawing upon theories and concepts from biological, social and public health sciences. An introduction to assessment and intervention skills useful to persons working with older adults in a broad range of practice settings. Prerequisite: 60 credit hours. GERO 300.

GERO 405-3 Aging in Small Communities and Rural Areas
An examination of the demographic trends in aging in small communities and rural areas of Canada, the geographical and social contexts in which these are occurring and the experience of rural communities in assessing needs and providing support services and housing. Prerequisite: 60 credit hours. GERO 300.

GERO 406-3 Death and Dying
The focus of this course is to provide the student with an in-depth understanding of the process of dying. By examining the process of dying, the student will gain new insights in caring for the dying person. Prerequisite: 60 semester hours credit. Recommended: GERO 300.

GERO 407-3 Nutrition and Aging
This course examines specific nutritional conditions and concerns of the aging population. It does so by exploring the nutrient needs of the elderly as determined by physiological changes of aging, metabolic effects of common diseases, and biochemical interactions of medications. The course includes a broad investigation of the psychological, sociological, and physical factors which influence food choice and ultimately nutritional status in aging. Prerequisite: 60 semester hours credit. Recommended: GERO 300.

GERO 408-4 Families and Aging
This course entails a comprehensive interdisciplinary study of families and aging. In addition to providing an overview of theory and research on this topic, a variety of substantive issues will be critically examined, including: families in mid life, sibling relationships, divorce and remarriage, dating in later life, care giving, poverty, elder abuse, and policy development. Prerequisite: 60 semester hours. Recommended: GERO 300.

GERO 409-3 Mental Health and Aging
Psychopathology often presents in distinct ways among older adults. The intent of this course is to examine disorders with their onset in later life and those that extend into later years. Students will derive an understanding of the diagnostic criteria for various disorders, prevalence, theories of etiology, and selected empirically validated interventions. Prerequisite: GERO 300. Recommended: GERO 403, PSYC 241. Students who received credit for GERO 411, when the course was offered under this title, may not take this course for further credit.

GERO 410-3 Special Topics in Gerontology I
Selected psychological, sociological, economic, biological and practical aspects of the aging of individuals and populations. Prerequisite: 60 semester hours credit. Recommended: GERO 300.

GERO 411-3 Special Topics in Gerontology II
Selected psychological, sociological, economic, biological and practical aspects of the aging of
individuals and populations. Prerequisite: 60 semester hours credit. Recommended: GERO 300
GERO 412-3 Special topics in Gerontology III
Selected psychological, sociological, economic, biological and practical aspects of the aging of individuals and populations. (Lecture/Seminar) Prerequisite: 60 semester hours credit. Recommended: GERO 300
GERO 414-4 Special Topics in Gerontology IV
Selected psychological, sociological, economic, biological and practical aspects of the aging of individuals and populations Prerequisite: 60 credit hours. Recommended: GERO 300.
GERO 420-4 Sociology of Aging
The structural and behavioral implications of aging. Topics include demographic aspects of aging; the relationship of aging to political, economic, familial and other social institutions; the psychological significance of aging. Prerequisite: 60 credit hours. Recommended: GERO 300. This course is identical to SA 420 and students cannot take both courses for credit.
GERO 435-3 Adult Guardianship Law
A comprehensive exploration of the law affecting adult guardianship, substitute decision-making, and adult protection in Canada, including a detailed examination of the form, content and philosophical underpinnings of the relevant legislation in British Columbia. Topics include assessing mental incapability, powers of attorney, living wills and health care directives, end of life decision-making, the law affecting consent to health care, and court-ordered guardianship for adults. Prerequisite: 60 credit hours. Recommended: GERO 300. This course is identical to CRIM 435 and students cannot take both courses for credit. Students who have taken CRIM 418 or GERO 410 may not take this course for further credit.
GERO 801-4 Health Policy and Applied Issues in Gerontology
The aim of this course is to examine linkages between long term care and other service sectors as well as to compare programs and services across community, provincial and national boundaries. A number of key policy issues will be discussed that pertain to the provision of health related services to older adults.
GERO 802-4 Development and Evaluation of Health Promotion Programs for the Elderly
This course deals with the design, implementation and evaluation of health promotion programs and services for older persons. Students will participate in the development and critical analysis of a variety of health initiatives aimed at healthful aging.
GERO 803-4 Analytical Techniques for Gerontological Research
This course has been specifically designed to provide training in quantitative data analysis using SPSSx Programming Language with a focus on behavioral research problems in gerontology.
GERO 810-4 Community-Based Housing for Older People
This course presents an in-depth examination of theory, research and policy related to planning, designing and managing housing for independent and semi-independent older adults.
GERO 811-4 Institutional Living Environments
This course focuses on design issues, theory, research and policy relevant to planning, developing and managing institutional living environments for dependent adults.
GERO 820-4 Principles and Practices of Health Promotion
This course is designed to cover and critically evaluate concepts, models and theories of health promotion and wellness in the aging population.

These methods of implementation will be discussed in relation to individual and structural health system issues facing the aged.

GERO 822-4 Families, Communities and Health
Critically evaluates and synthesizes key theory, research and health promotion policy related to the intersection of aging families, communities and health. The principal theoretical perspectives will include: life course theory; social, human and cultural capital; and community empowerment approaches.

GERO 830-4 Human Factors, Technology, and Safety
This course covers theoretical, research and industry literature pertaining to designing home, work, institutional and public environments that are ergonomically functional, safe, and satisfying to the older adult.

GERO 840-4 Special Topics in Gerontology
This course offers an opportunity to offer a specialized course in an area germane to the program but on a topic that is outside of the regular courses.

GERO 850-0 Co-op Internship
The internship consists of one full-time work semester. Arrangements for the work semesters are made through the Faculty of Arts Co-op Co-ordinator at least one semester in advance. For further details, students should refer to the Co-operative Education section of the Calendar. Prerequisite: MA students in good standing with a minimum GPA of 3.0 may apply to enter the co-op internship after satisfactory completion of 16 semester hours credit.

GERO 889-4 Directed Studies
This course consists of supervised readings in a particular field of specialization relevant to the selected area of concentration.

GERO 898-6 Project
A project must be written under committee supervision for formal examination as part of the program requirements for students in the project stream.

GERO 899-6 Thesis
A thesis must be written under committee supervision for formal examination as part of the program requirements for students in the thesis stream.

Health Sciences HSCI
Faculty of Health Sciences
HSCI 140-3 Complementary and Alternative Medicine
A scientific, critical, and evidence-based examination of integrative, complementary, and alternative medicine and its effect on human health. Students will critically analyze the evidence in support of various complementary and alternative treatment modalities. Incorporation of traditional remedies into mainstream medicine. The need to investigate, and to protect the public from fraud. The extent to which both complementary and mainstream medicine can withstand the scrutiny of an evidence-based approach.

GERO Faculty of Arts and Social Sciences
Department of Linguistics
Language Training Institute

Greek GRK

Course Catalogue – Greek GRK 391
HSCI 150-3 Current Topics in Human Sexuality
Current issues and controversies and their impact on the sexual behaviour and well-being of individuals at different ages and circumstances. Typical topics might include sexually transmitted diseases and AIDS, sexual orientation and cultural differences in tolerance, abuses of power, and sexually explicit media. Differing perspectives and a diversity of views will be presented in a non-prescriptive manner. As a result, many of the views expressed in this course will be controversial.

HSCI 160-3 Global Perspectives on Health
An introduction to the differences in health and health services among the nations of the globe. Vulnerable sub-populations worldwide and their special health needs. Mechanisms and events in one country can impact health in another. Future worldwide health risks, their economic and health consequences. SARS, avian flu, West Nile virus, "mad cow disease", antibiotic resistant malaria or tuberculosis. Dangers to rich and poor nations from ignoring health problems in the developing world.

HSCI 170-3 Environmental Impacts on Human Health
Analysis of environmental risks to health in both the workplace and external environments. The impact of industrial activity on the health of rural and urban communities. The health effects of industrial, environmental, and workplace hazards. Chemical, and biological hazards to lung, nervous, immune, and other body systems. Methodological approaches to their detection, assessment, management, and mitigation.

HSCI 691-1 Graduate Seminar in the Health Sciences
A seminar course required of all graduate students in Health Sciences. Students will gain perspective on the Faculty's overall array of research. Presentations will be given by faculty and students, to be followed by seminar discussions. Strategies for effective oral, poster, and web-based presentations will be considered, as well as methods facilitating discussions.

HSCI 801-4 Biostatistics I
Introduction to statistical techniques required in epidemiologic and health care research. Review of descriptive and graphical methods, probability distributions, estimation and inference. A discussion of rates and standardization. Introduction to lifetables, diagnostic tests and ROC curves. Design of experiments. General concepts in hypothesis testing; power and sample size estimation. Inference for proportions, contingency tables, odds ratios. Prerequisite: STAT 302 or equivalent.

HSCI 802-4 Research Topics in Epidemiology for the Health Sciences
This course considers epidemiologic inference in individual and population health. Principles, theories, and methods for epidemiologic research are discussed from scientific, managerial, behavioral and sociocultural perspectives. Morbidity, mortality, and, relative risk are examined. Designs for longitudinal, cross-sectional and intervention studies are developed. Students will acquire skills in critical interpretation of the epidemiologic literature; methodology for estimating disease frequency, and measures of effect; evaluation of study designs; analysis of confounding errors, and identification of misclassification, selection, and information bias.

HSCI 803-4 Research Methodology for the Health Sciences
This course discusses current methodology and strategic research design for advances in knowledge and understanding in the health sciences. Problem definition, data collection sampling and analysis using qualitative and quantitative methodology are considered. Contemporary case studies will illustrate the advantages and disadvantages of alternative approaches to a range of real-life problems.

HSCI 804-4 Systems Analysis of Health Care and Delivery
This course discusses components of health care systems, issues, and interactions between components. Systems, health care services and the delivery of primary health care are reviewed. The course considers the Canadian health system and alternatives that impact it or provide better models for delivery. Effecting change, policy development, health system design are considered, and criteria for evaluating alternatives are developed. Different measures of health status are compared, and trend analysis is conducted for predicting future health care and funding. Components of expenditure are reviewed.

HSCI 890-4 Special Topics in Health Sciences
Special topics in areas not currently covered within the graduate program offerings. Prerequisites: Depending on the Special Topic offered.

HSCI 891-4 Special Topics in Health Sciences
Special topics in areas not currently covered within the graduate program offerings. Prerequisites: Depending on the Special Topic offered.

HSCI 892-2 Special Topics in Health Sciences
Special topics in areas not currently covered within the graduate program offerings. Prerequisites: Depending on the Special Topic offered.

HSCI 895-4 Research Conceptualization and Design in the Health Sciences
The conceptualization, planning and management of a research project, including project management skills, problem objectives, definition of deliverables. Strategies for effective implementation, data collection, exploratory data analysis, report preparation, and dissemination of results. A case studies approach will focus on individual projects selected by each of the students for a practicum. The practicum proposal must be approved by the Graduate Studies Committee before commencing the practicum. Prerequisites: HSCI 801-4

HSCI 896-4 Practicum/Project Report
This course is only open to students in the practicum/project stream who must take it in the semester of their practicum. A study, detailing work experiences, conceptualizing goals, strategies for implementing them in the workplace, and evaluating the strengths and weaknesses of the approach taken. The study will result in the preparation of a scholarly report on the work experience in the structure of a formal paper. The report will include an analysis of the strategic objectives, confounding variables, recommendations, and discussion of practical strategies for implementation. This course must be taken concurrently with the practicum semester. Prerequisite: HSCI 895.

HSCI 897-4 Seminar in Workplace Integrated Learning
This course is intended for practicum students in the semester following completion of the practicum report. In exceptional circumstances, students who have worked as health professionals may be approved to take this course without completing the Practicum/Project report course. In this course, students will circulate their Practicum/Project report. The student presents the written report to the class for peer-critique in a seminar. Discussion and constructive critique by the class follow, along with an analysis of the methodology and tools used, their strengths, weaknesses, and confounders, and an examination of what is novel and what represents the cutting edge of technology in the specific workplace environment considered. The student weaves all opinions and insights into a final practicum overview, which integrates what was learned into a common conceptualization of the relevant health theory and methodology. Prerequisite: HSCI 896.

HSCI 898-6 MSc Thesis
PPH 801-4 Concepts and Mechanisms in the Determinants of Health
HIST 209-3 Latin America: the National Period
A survey of Latin American history from Independence (1808-24) to the present: post-independence political collapse and reconsolidation; Latin America in the world trade system and the changing conditions of economic dependency; nationalist reform (Mexico) and socialist revolution (Cuba), liberalism, populism, and the rise of modernizing military. Treatment by topics and broad historical period rather than country by country. Recommended: HIST 208.

HIST 212-3 The United States to 1877
The emergence and development of American civilization from the establishment of the colonies through the Civil War and Reconstruction. Recommended: HIST 104.

HIST 213-3 The United States Since 1877
An analysis of the transformation of American culture from post-Civil War to modern forms. Topics to be discussed will include industrialization, urbanization, foreign policy, cultural and political antagonisms. Recommended: HIST 212.

HIST 215-3 The Making of the British Isles
A broad survey of some of the central developments that have shaped the history of the British Isles from Roman antiquity to the present.

HIST 220-3 The Later Middle Ages
This course will examine European history from the high middle ages to the beginning of the Reformation. Attention will be given to both material and cultural dimensions of medieval European civilization.

HIST 223-3 Early Modern Europe, 1500-1789
A survey of early modern European history which will examine, among other topics, the wars of religion, the 17th century revolutions, 16th and 17th century economic development, the scientific revolution, the enlightenment and the political and social character of the old regime.

HIST 224-3 Europe from the French Revolution to the First World War
A survey of European history emphasizing the French Revolution, Napoleon and Napoleonic Europe and first Industrial Revolution, liberalism and its opponents, agrarian conservatism, liberal and conservatism, the Revolutions of 1848, the struggles for political unification, the second Industrial Revolution and the origins of the First World War.

HIST 225-3 Twentieth Century Europe
A survey of European history from the First World War emphasizing the origins and effects of the World Wars, the emergence of the Soviet Union and of fascism.

HIST 231-3 The Origins of Modern Africa
Conquest, Resistance and Resurgence
Continuity and change in sub-Saharan Africa from the era of the slave trade until World War II.

HIST 249-3 Classical Islamic Civilization
This course offers a broad survey of the development of classical Islamic civilization. It begins with an examination of the origins of Islam in seventh century Arabia, and continues through the break-up of the Abbasid Caliphate of Baghdad in the 13th century. Emphasis will be placed on gaining an understanding of the doctrines of Islam, the significance of the rise and fall of the early Arab-Islamic empires, and the role of Islam in world history.

HIST 252-3 Islamic India
A survey of the cultural patterns, social and political forces, and historical contexts that have shaped the Islamic period of Indian history. Special attention will be directed toward the Mughal empire and its decline.

HIST 254-3 China to 1800
This course offers a broad survey of the history of China from antiquity to the eve of its modern transformations at the turn of the 19th century. It aims to challenge the perception of an unchanging China and to encourage students to develop a critical understanding of the forces integrating and dividing this geo-cultural unit.

HIST 255-3 China since 1800
A survey of the history of China from the end of the 18th century when the Chinese society was arguably at its height of development, to the end of the 20th century when the social revolutions promised by the Communist regime have clearly failed to materialize. The main objectives are to provide students with vocabularies and tools to understand and interpret the political, social and cultural transformations in modern China and to initiate them in the art and techniques of historical analysis.

HIST 299-3 Problems in History
This course is designed to allow students to pursue in greater depth a particular historical problem. It will be offered either as an individual reading course or in small seminars, depending upon student and faculty interest. Admission only by prior consent of instructor. Students may not take this course more than once or after they have completed 60 hours of course work. Recommended: at least four university level courses in history.

HIST 300-4 Approaches to History
An examination of the conceptual problems involved in the historian's attempt to apprehend the past and its relationship to the present and future. Particular attention will be paid to the nature of historical knowledge and explanation, and to the broad systems and patterns in which history has been conceived. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 305-2 Honors Tutorial
Open only to honors students, this tutorial will be taken in conjunction with HIST 300. Readings in the philosophy of history and historiography will be discussed. Prerequisite: 45 credit hours including 9 hours of lower division history credit; admission to the honors program in history.

HIST 308-4 The Byzantine Empire
Examines the earlier half of the Roman Empire, which survived, by twelve hundred years, the collapse of the Western empire in the fifth century AD, and its transformation by Greek culture, language, political traditions and religion. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 309-4 Early Modern Greek History: 1453-1821
Examines the development out of the legacy of the cosmopolitan Byzantine Empire of the distinct social, political and economic elements that led to the Modern Greek State and the Hellenic Diaspora, and the culture, religion and social structure of the Greek world. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 310-4 Women and the Family in Modern Europe
An introduction to the history of women and the family in Western Europe (mainly Britain and France) from about 1700 to the end of the British struggle for women's suffrage. Readings will include recent studies as well as primary sources. Attention will be given to methodological problems and conflicting interpretations. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 312-4 Poverty, Crime, Madness: Society and the Outcast
An examination of changing attitudes toward poverty, vagrancy, insanity, crime, and disease in Europe since the 16th century. The influence of religion, philanthropy, medicine, and the social sciences in defining outcast groups and in formulating policies for dealing with them. Conflicting interpretations of the origins and functions of the welfare state.

Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 315-4 Politics and Society in England, 1500-1707
This course provides a general overview of the social and political history of Tudor and Stuart England. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 316-4 English Society Since Mid-Eighteenth Century
A study of English society, culture and politics from the accession of George III to the present. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 319-4 France since 1800
An examination of the political, social, economic and intellectual development of France from Napoleon to the Fifth Republic. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 320-4 European Reformation
An advanced examination of the complex history and patterns of the Religious Reformation in sixteenth century Europe. Emphasis will be placed on the religious thought of the period, and on its social and political context. Prerequisite: 45 credit hours including 9 hours of lower division History credit. Strongly recommended: HIST 220 or 223. Students who have taken HIST 403-4 prior to 2005-3 cannot take this course for further credit.

HIST 321-4 State and Society in Early Modern Europe
Examines major themes and developments in the political and social history of early modern Europe (1500-1789). Will consider various forces (e.g. religious, cultural, economic, military) that contributed to or challenged the strengthening of state power. While the focus of the course will usually be comparative in nature, it may on occasion also emphasize one particular state. Prerequisite: 45 credit hours, including 9 hours of lower division History credit. Students who have taken HIST 318 or HIST 331 prior to 2005-3 may not take HIST 321 for further credit.

HIST 322-4 Atlantic Migration
Topics in the history of European migrations with attention given to the contexts from which the migrants came, why they migrated, and how they adjusted. Examples may be taken primarily from the United States, Canada or Latin America, but reference will be made to all three. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 324-4 Slavery in the Americas
An advanced examination of the complex history and political, social, economic and intellectual development of the Americas. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 325-4 Aboriginal Peoples of North America to 1850
This course explores the history of Aboriginal peoples of North America from first contact with Europeans to the mid-19th century. Contact along a range of colonial frontiers including British, French, Spanish and Russian will be considered. Topics include the fur trade, disease, missionaries, intermarriage, and imperial politics. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 326-4 Aboriginal Peoples of North America since 1850
An examination of selected themes in the history of Aboriginal peoples of North America in the 19th and 20th centuries. Topics include the fur trade, missionaries, intermarriage, the Metis, government policies, wage labour, education, treaty making, oral
narratives and political activism. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 327-4 Canadian Labour and Working Class History
An examination of the history of labor, primarily in English Canada, during the 19th and 20th centuries. The evolution of trade unions and labor-political movements will be examined together with the impact of industrialization, the rise of mass production, changing patterns of immigration and other contexts of working-class culture and material life. Special attention will be paid to British Columbia as a case study. Historically the course examines 'working class history' as a particular way of studying the past. What is the concept of the 'working class'? Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: HIST 101, 102 and 204.

HIST 328-4 Province of Quebec From Confederation
The economic, social, political and cultural history of Quebec. Prerequisite: HIST 102 plus 45 credit hours including 9 hours of lower division history credit. Recommended: HIST 101.

HIST 329-4 Canadian Family History
A detailed examination of the changing Canadian family, and its relationship to the state, since the 18th century. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 332-4 Germany since 1815
An examination of the principal themes in German political, social, economics and intellectual history from the defeat of Napoleon in 1815 to the reunification in 1990. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 334-4 Russia to 1900
An in-depth study of selected themes in Muscovite and Imperial Russian history. These will include relations between state and society, and between Russians and non-Russians, as well as economic and social modernization. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: HIST 105 and 106.

HIST 335-4 Twentieth Century Russia
An in-depth study of the social, economic, and political history of the Soviet Union, examining its revolutionary origins, rapid modernization, and emergence as a super power. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 336-4 Ideas and Society in Early Modern Europe
An examination of intellectual developments of early modern Europe (sixteenth to 18th centuries) in their broader social, cultural, political or economic contexts. The course will focus on a particular subject e.g. Northern humanism, debates about the nature and social role of women (the querelle des femmes), the Enlightenment. Students will read excerpts from important contemporary sources. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: HIST 223 or 224.

HIST 337-4 The Balance of Power in Europe
An examination of the shift of power among competing European states from the late 19th century until the mid-20th century. Attention will be given to the origins and consequences of the two great European wars and to the policies of Britain, France, Germany, and Russia which brought about the significant changes in the balances of power. Study will be based primarily upon documents from the Chanceries. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: HIST 225.

HIST 338-4 World War II
An introduction to the history of the origins and course of the second world war. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: HIST 226.

HIST 339-4 The British Empire and Commonwealth
This course provides an outline history of the British Empire, its rise and decline, and discusses the origin and significance of the Commonwealth. In addition there is a detailed account of the 'Westminster Model' of parliamentary democracy, on which the political institutions of many Commonwealth nations are based. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 343-4 Africa and the Slave Trade
An examination of the trade in slaves from Africa and the rise of slavery within that continent. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Students with credit for HIST 478 may not enroll in HIST 343. Recommended: HIST 146 or 231.

HIST 344-4 East Africa
A regional study from the Arab and European penetration in the 19th century to the emergence of Kenya, Uganda, and Tanzania as independent states with emphasis on the patterns of economic, political, social and religious change. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 348-4 Twentieth Century South Africa
An examination of the economic, social and political history of 20th century South Africa. Particular attention will be paid to the factors which led to the rise of apartheid. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: at least one of HIST 146, 231.

HIST 350-4 The Ottoman Empire and Turkey
A study of Ottoman society and the impact of Ottoman rule in the Middle East from the conquest of Constantinople to the death of Ataturk, the founder of the Turkish Republic. Emphasis will be on the conflict between preservation and reform in the 19th century and on the significance of the Ottoman legacy for 20th century Turkey and the Arab world. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: one of HIST 151, 249, 251.

HIST 352-4 Religion and Politics in Modern Iran
The intellectual and social history of greater Iran from the Safavids to the 20th century. Emphasis will be on the relationship between religion and politics. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: one of HIST 151, 249, 251.

HIST 354-4 Imperialism and Modernity in the Middle East
This course examines the role of imperialism in the transformation of societies in the Middle East and North Africa over the last two centuries. Focusing mainly on the cases of Ottoman, British and French empire building, the course discusses the socio-economic, cultural and political changes brought about by the interaction of various segments of local societies with these imperial powers. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: one of HIST 151, 249, 251.

HIST 355-4 The Arab Middle East
An examination of this century's major themes in the history of Syria, Lebanon, Iraq, Iran and Saudi Arabia, as well as other states of the Arabian peninsula. Topics to be investigated include the origins of Arab nationalism and Islamic reformism; the origins and development of the Lebanese question; the emergence of the politics of the military in Iraq and Syria, and the special role of the Jordanian and Arabian monarchies. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: one of HIST 151, 249, 251.

HIST 360-4 The History of Science: 1100-1725
Topics in medieval and renaissance science including Aristotelian/Platonic cosmology, alchemy, physics and the human sciences. The rejection of medieval ideas during the scientific revolution will be studied through the work of Copernicus, Vaselines, Descartes, Brahe, Kepler, Galileo, Harvey and Newton. Prerequisite: 45 credit hours including 9 hours of lower division history or science credit.

HIST 361-4 The History of Science: The Eighteenth Century to the Present
Topics in the history of science and technology to be selected from the 18th/19th century chemistry, the history of the idea of evolution and of Darwinian science, physics to 1914, or 19th century industrial science. Prerequisite: 45 credit hours including 9 hours of lower division history or science credit.

HIST 365-4 Self and Society in Imperial China
An in-depth examination of selected aspects of Chinese society and culture in the imperial period, particularly the relationships between self, family and society. This course seeks to challenge the perception of a static Chinese culture and demonstrates that a critical understanding of the imperial period remains a key to our comprehension of contemporary Chinese society. Prerequisite: 45 credit hours including 9 hours of lower division history credit including HIST 254 or permission of the department.

HIST 370-0 Practicum I
This is the first semester of work experience in co-operative education. It is meant to be exploratory in nature. Prerequisite: normally 60 semester hours with a minimum CGPA of 2.75. Students should apply to the co-op co-ordinator one semester in advance.

HIST 371-4 The Asia-Pacific War in Modern Japanese History
Covers the period in Japan from the 1930s to the 1950s and will introduce students to topics such as wartime atrocities, the dropping of the atomic bombs and the prosecution of war criminals. Students will also attempt to explain why so much controversy surrounds interpretations of events arising from Japan's last war, the Asia-Pacific War. Prerequisite: 45 credit hours including nine hours of lower division history credit. Recommended: at least one course on modern Japan.

HIST 375-0 Practicum II
This is the second semester of the Co-operative Education Program. Building on the experience of the first employment semester, this semester will provide a work experience that integrates and builds on the research and writing skills associated with the discipline of history. Prerequisite: normally 75 semester hours (including HIST 370) with a minimum CGPA of 2.75. Students should apply to the co-op co-ordinator one semester in advance.

HIST 382-4 African-American History, since 1865
Examines black history from the end of the American Civil War. The course focuses on the external and internal forces which shaped black communities across the nation. Special attention will be paid to these communities' struggles against the forces which sought to confine black people to an inferior place in society. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 384-4 North American Urban History
This course examines the development of North American cities and the social, political and economic forces which have shaped them. Emphasis will be
placed on the lives of city dwellers and the distinctive urban cultures they have created. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 386-4 Material History of North America 1500-1850
Examines North American material history from the time of contact through the settlements of the Dutch, English, French, and Spanish, through the collapse of empires and the rise of independent states, addressing issues such as utility, class difference, ideology, aesthetics and taste, and consumerism. The influence of the African diaspora in the New World will also be examined. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 391-4 Studies in History I
Special topics. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 392-4 Global History
An examination of select topics in Global History since 1500. Students will explore the connections between regions rather than individual regional histories. The specific focus will be chosen by the instructor, but may include migration, trade, environmental change, social movements, and other global phenomena. Prerequisite: 45 credit hours, including 9 hours of lower division History credit.

HIST 404-4 Protestants, Papists and Puritans: Culture and Belief in Early Modern England, 1500-1640
From the world of late-medieval piety to the outbreak of the English Civil War, this research seminar examines the changing nature of religious belief in early modern England with a particular focus on the origins, development and impact of Protestantism. Prerequisite: 45 credit hours including 9 hours of lower division history credit and one of HIST 215, 219, 220, 223, 315 or 316, or permission of the department.

HIST 405-4 Authority and Community in Early Modern English Society, 1500-1700
Examines select problems in the social history of early modern England with a particular focus on the changing relationship of authority and local communities and the level of the village and parish. Prerequisite: 45 credit hours including 9 hours of lower division history credit and one of HIST 215, 219, 220, 223, 315 or 316, or permission of the department.

HIST 407-4 Popular Culture in Great Britain and Europe
This course will study culture in Great Britain and Europe since 1500. Themes may include the sixteenth century separation of church and elite culture, Carnival, the witch craze, popular ballads, the institutional 'rational recreation' during the Industrial Revolution, the late Victorian Music Hall, the cultural emancipation of women, and the effects on working class culture of economic depression and world war. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: HIST 105 or 106.

HIST 409-4 Disease and Society
A seminar devoted to problems in the social history of medicine, which is a field concerned with health, disease, and medical practice in particular social, political, and cultural contexts. Particular attention will be given to the history of epidemic diseases since the 18th century. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 411-4 Class and Gender in Modern Europe
This seminar will examine theories of class and gender as they apply to modern European social, economic and political history. In certain seminars the emphasis may shift from class analysis to gender relations and women's history; but the interrelationship of class and gender will always be considered. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: HIST 224 and 225.

HIST 412-4 Marxism and the Writing of History
This course aims to provide a basic understanding of Marx's theory of history and to introduce students to some of the important ideas used by Marxists in the writing of history. Readings for the course will include some of Marx's original work, the writings of historians who have been influenced by Marx as well as selected writings from some of Marx's critics. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 413-4 Britain and Europe in the Twentieth Century
An examination, by means of a series of case studies, of the ways in which Britain's ambiguous relationships with Europe, the Empire/Commonwealth and the United States have shaped its identity in the 20th Century. Prerequisite: HIST 225 plus 45 credit hours including 9 hours of lower division History credit. Recommended: HIST 337.

HIST 414-4 The Impact of the Great War
A brief look at the political, social, and territorial changes of the Versailles settlement, followed by an examination of the impact of the war upon Europe, particularly through the examples of fascism in Italy, national socialism in Germany and the general breakdown of the liberal order during the 1930's. In certain seminars additional attention will be given to the Soviet Union. Prerequisite: HIST 225 plus 45 credit hours including 9 hours of lower division history credit. Recommended: HIST 337.

HIST 415-4 Victorian Britain
A study of major developments and controversies — social, cultural, political, religious, economic — during the period of the rise of industrial and class society. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: one or more of HIST 224, 315, 316.

HIST 416-4 The French Revolution
An analysis of the origins of the Revolution, of its changing nature, and of its impact on society. The Revolution will be examined in its European context. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: HIST 223, 224.

HIST 417-4 Problems in Modern French History
An examination of a principal aspect of, or period in, the history of French society since the Revolution. For example, attention may be given to the 19th century French revolutionary tradition, or to society and culture in the Third, Fourth and Fifth Republics, or to colonialism and decolonisation. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: HIST 224 or 225.

HIST 419-4 Late Imperial and Revolutionary Russia
A detailed examination of the impact of modernization in late Imperial and early Soviet Russia. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: HIST 224 or 225.

HIST 420-4 The History of Russian Foreign Policy from Catherine the Great to Stalin
A detailed study of the course of Russian foreign policy from the late 18th century to the middle of the 20th century. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 421-4 Modern Greece, 1864-1925
Greece and Greek society will serve as a case study of a Balkan country that underwent several political and social transformations. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 422-4 Greece, 1935-1944: Occupation and Resistance
Examines the cycle of violence that followed the Axis occupation of Greece and created a political and social system that lasted until the 1980s. The course will focus on Greek resistance, foreign relations and relations with the British intelligence services. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 424-4 Problems in Cultural History of Canada
Selected problems in Canadian ideas and attitudes on such topics as the arts, religion, education, minority and native cultures, nationalism, and Canadian historiography. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 425-4 Gender and History
This course will study historical changes in masculinity and femininity. It will examine the ways in which gender identities of community and nation were formed and changed, and it will consider the influences of gender relationships upon politics, society and the economy. Prerequisite: 45 credit hours including 9 hours of lower division history credit.
HIST 426-4 State Power and Social Regulation in North America
An examination of the growth and evolution of the relationship between state and society in North America. It will examine the myriad direct and indirect ways in which the state has regulated the lives of North Americans and the equally diverse ways in which North Americans have sought to influence and shape state policy. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: PHIL 120 or 220.

HIST 427-4 Problems in the History of Aboriginal Peoples
Examination of selected themes in the history of Aboriginal peoples. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: HIST 101, 102.

HIST 430-4 New France
Social, cultural, intellectual, economic, military, and administrative aspects of New France. Prerequisite: HIST 101 plus 45 credit hours including 9 hours of lower division history credit. Recommended: HIST 102.

HIST 431-4 Problems in the History of British North America 1760-1850
The social and cultural life of British North America: religion, education, economic pursuits, social and humanitarian attitudes, politics, and English-French relations. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: HIST 101.

HIST 432-4 Problems in Environmental History
An investigation into the major themes and arguments in the environmental histories of North America, emphasizing how different individuals and groups have used, perceived, and managed their environments over time. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Students with credit for HIST 447 under the same topic may not take HIST 450 for further credit. Recommended: HIST 212 or 213.

HIST 434-4 Things and Stuff: Problems in Material History
Through the use of case studies, this course considers how historians can effectively and powerfully use architecture and objects as evidence. Issues to be addressed include 'text' and 'context' and the methodology of reading of material evidence. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Students with credit for HIST 486 in 2000-1 or HIST 488 in 2001-3 may not take this course for further credit. Recommended: HIST 386 and/or 387.

HIST 435-4 Problems in the History of the North American West
This course examines selected problems in the social, economic, political and cultural history of the Canadian and/or American West. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: HIST 101 and 102.

HIST 436-4 British Columbia
Selected problems in the social, cultural, economic and political development of British Columbia. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: HIST 101 and 102.

HIST 439-4 Catholicism in Early Modern Europe
An examination of the complex history of Catholicism in Europe in the period 1500-1789. By elucidating the diversity within and among institutions and religious experiences, it will challenge the traditional assumption that Catholicism constituted a religious monolith impervious to historical change. Subjects for particular focus may include iconoclasm, approaches to Catholicism, the papacy, the Society of Jesus, popular religion, integration of art. Prerequisite: 45 credit hours, including 9 hours of lower division History credit and one of HIST 220, 223 or 321.

HIST 444-4 American Revolution and the Making of the Constitution
Selected topics may include the Revolutionary War Era; the American Enlightenment; the New Nation; American Diplomacy in the Formative Period. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: HIST 212.

HIST 450-4 The Era of the American Civil War
Examining the political, social, economic, and cultural elements that led to the break up of the American republic, the Civil War, and the problems involved in reconstructing the union. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Students with credit for HIST 447 under the same topic may not take HIST 450 for further credit. Recommended: HIST 212 or 213.

HIST 453-4 The United States in Depression and War
An examination of the impact of the Great Depression and the Second World War in shaping modern American society. Topics covered will include the development of the welfare state, the rise of industrial unions, the evolution of Keynesian economic policy, and the battles over race, class and gender in the 1930s and on the wartime homefront. Prerequisite: 45 credit hours including 9 hours of lower division history credit including HIST 213 or permission of the department. Students with credit for HIST 448 under the same topic may not take HIST 453 for further credit. Recommended: HIST 212 or 213.

HIST 454-4 Gender and Sexuality in History
Explores changing constructions of gender roles and sexuality, how prescribed norms have shaped definitions of acceptable and respectable behavior, and how these norms have been regulated over time. The chronological and geographic focus of this course will vary. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 455-4 Race in the Americas
An examination of the role of racial thinking in the history of the Americas, from the era of the Conquest to the present day. Topics may include African and Indigenous slavery, the development of scientific racism in the 18th and 19th centuries, and the persistence of racism in the present day. Prerequisite: 45 credit hours, including 9 hours of lower division History credit.

HIST 458-4 Problems-Latin American Regional History
Advanced concepts and methodology applied to the study of one or more Latin American regions. Examples are: pre-Columbian and colonial Middle America; revolutionary Mexico 1910-1970, Brazil from Slavery to Militarism, frontier society to hyper-urbanism in the La Plata countries. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: one of HIST 104, 208, 209, LAS 200.

HIST 469-4 Islamic Social and Intellectual History
Advanced analysis of specific problems in Islamic social and intellectual history, with an emphasis on traditional patterns and on their transformation in the modern world. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: one of HIST 249 or 352.

HIST 470-0 Practicum III
This is the third semester of the Co-operative Education Program. The work experience will be focused in a specialized area of the student's choice. Prerequisite: normally 90 semester hours (including HIST 370 and 375) with a minimum CGPA of 2.75. Students should apply to the co-op co-ordinator one semester in advance. Students entering 400 division seminars should have an appropriate background in 100 and 200 division and/or 300 division History. Normally, students should have completed 45 credit hours (or the equivalent) prior to enrollment in any upper division history course.

HIST 471-4 Women in Modern Japanese History
The history of Japan from 1600 to the mid 20th century with a focus on the economic, social, cultural and political contributions of women. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Students with credit for HIST 485 in 2001-1 or HIST 488 in 2002-1 may not take this course for further credit.

HIST 473-4 The Making of South African Society
An examination of the way in which South African society evolved in the 19th and 20th centuries. Particular attention will be paid to the problem of race relations. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: HIST 231, 348.

HIST 474-4 Modern Chinese Identities
This seminar offers an opportunity for upper level undergraduates to explore in-depth the historicity and constructed-ness of identities, especially in relation to the vast and diverse population known as 'Chinese.' Topic to be discussed include Orientalism, nationalism, race, ethnicity and gender. The course aims to encourage students to develop a critical understanding of the political, social and cultural assumptions that are often behind the creation and perpetuation of identities. Attention will also be given to the history of Chinese diaspora (particularly in North America) and its significance to the project of reinterpreting ‘Chinese-ness’ in the modern world. Prerequisite: 45 credit hours including 9 hours of...
lower division history credit including HIST 255 or permission of the department.

HIST 475-0 Practicum IV
This is the fourth semester of the Co-operative Education Program. The work experience will require a high level of expertise in research and writing skills as well as an ability to exercise independent judgement. Prerequisite: normally 105 semester hours (including HIST 370, 375 and 470) with a minimum CGPA of 2.75. Students should apply to the co-op co-ordinator one semester in advance. Students entering 400 division seminars should have an appropriate background in 100 and 200 division and/or 300 division history. Normally, students should have completed 45 credit hours (or the equivalent) prior to enrollment in any upper division history course.

HIST 481-4 British India
An examination of the British community in India set against the background of British attitudes to India since the late 18th century. Prerequisite: 45 credit hours including 9 hours of lower division history credit and HUM 339 or permission of the department.

HIST 483-4 Struggle for Identity in Sub-Saharan Africa
Selected topics in the history of an African state. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 485-4 Studies in History I
Special topics. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 486-4 Studies in History II
Special topics. Prerequisite: 45 credit hours including 9 hours of lower division history credit.

HIST 489-4 Studies in History
Allows students to pursue in greater depth a particular historical problem. It will be offered either as an individual reading course or as a small seminars, depending upon student and faculty interest. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: at least three upper division courses in history.

HIST 490-4 Studies in History
Allows students to pursue in greater depth a particular historical problem. It will be offered either as an individual reading course or as a small seminars, depending upon student and faculty interest. Admission only by consent of instructor. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Recommended: at least three upper division courses in history.

HIST 498-8 Honors Essay
Written under the direction of an individual faculty member, the honors essay will reflect a familiarity with the events and literature of a particular area of study. Prerequisite: 45 credit hours including 9 hours of lower division history credit. Students entering 400 division seminars should have an appropriate background in 100 and 200 division and/or 300 division history. Normally, students should have completed 45 credit hours (or the equivalent) prior to enrollment in any upper division history course.

HIST 499-18 Honors Seminar
HIST 805-5 Western Canada
HIST 806-5 Themes in Canadian History
HIST 810-5 Themes in European History
HIST 812-5 Special Topics in History
HIST 814-5 Research Seminar
HIST 819-5 Medieval Europe
HIST 821-5 Special Topics in History
HIST 824-5 Modern France
HIST 825-5 Modern Germany
HIST 826-5 International Relations
HIST 828-5 European Cultural and Intellectual History
HIST 835-5 United States to 1890
HIST 845-5 Latin America Since 1825
HIST 851-5 State and Society in Pre-modern Middle East
HIST 852-5 State and Society in Modern Middle East
HIST 853-5 Imperialism in the Middle East
HIST 864-5 Tropical Africa
HIST 870-5 Culture and Society in China
HIST 871-5 Culture and Society in India
HIST 881-5 Great Britain as a great power since 1763
HIST 884-5 Health and Society
HIST 885-5 Law and Society
HIST 886-5 Migration and Settlement
HIST 887-5 Comparative Labour History
HIST 888-5 Native-European Contact
HIST 890-5 Gender and History
HIST 891-5 The French Experience in North America
HIST 892-5 Religion and Society
HIST 893-5 State and Society
HIST 894-5 War and Society
HIST 895-5 Rural History
HIST 896-5 Culture and Identity
HIST 897-5 Supervised Readings
HIST 899-6 PhD Thesis
HIST 900-6 Research Project

Humanities HUM
Faculty of Arts and Social Sciences
HUM 101-3 Introduction to the Humanities
An introduction to issues and concepts central to the study of the Humanities. Through exposure to primary materials drawn from different periods and disciplines, students will become acquainted with a range of topics and ideas relating to the study of human values and human experience.

HUM 102-3 Classical Mythology
An introduction to the central myths of the Greeks and Romans. The course will investigate the nature, function, and meaning of myths in the classical world and their considerable influence on western civilization.

HUM 103-3 The Invention of the Book: Alphabets, Papyrus, Parchment, and Print
The book as we know it did not always exist; it was invented. This course will explore the creation and spread of writing, the emergence of scribal cultures, and the birth of the book, which came to be the greatest of all material, cultural and intellectual objects, one that shaped and transformed civilization. (lecture/tutorial)

HUM 151-3 Ancient Greek I
An introduction to the classical Greek language.

HUM 152-3 Ancient Greek II
The continuation of Ancient Greek I. Prerequisite: HUM 151, or permission of the instructor.

HUM 161-3 Latin I
An introduction to the Latin language. (tutorial)
of its art, architecture and writings. Prerequisite: 45 credit hours.

HUM 303-4 The Latin Humanist Tradition Studies in the writings of various Latin authors. Prerequisite: 45 credit hours.

HUM 305-4 Medieval Studies A detailed interdisciplinary analysis of a selected topic, issue, or personality in the Middle Ages. Prerequisite: 45 credit hours.

HUM 307-4 Carolingian Civilization A focused interdisciplinary study of the Carolingian civilization achieved in early medieval Europe under Charlemagne and his family. Prerequisite: 45 credit hours.

HUM 311-4 Italian Renaissance Humanism A study of the major writings, cultural milieu, and influence of the humanist movement of the Italian Renaissance. Prerequisite: 45 credit hours.

HUM 312-4 Renaissance Studies A detailed interdisciplinary analysis of a selected topic, issue, or personality from the Italian and/or Northern Renaissance. Prerequisite: 45 credit hours.

HUM 320-4 The Humanities and Philosophy An exploration of the characteristic ways in which the humanities, with its emphasis on expression, belief and tradition, presents the important philosophical concepts of western civilization. Based upon an interdisciplinary selection of texts drawn from history, philosophy, literature and the arts. (seminar) Prerequisite: 45 credit hours.

HUM 321-4 The Humanities and Critical Thinking A study of the counter-traditions within western civilization. Compares and contrasts diverse traditions within western culture that critique its central value systems. It will focus on the attempts of great artists and thinkers to break with tradition, and the subsequent creation of new ideas and forms of experience and expression. (seminar) Prerequisite: 45 credit hours.

HUM 325-4 The Humanities and the Natural World A study of the humanistic, scientific, political, and ideological discourses deriving from concern with the natural environment and contemporary sources, this course examines the interaction of humans with the non-human world, and includes such topics as human communities and nature, the immersion of the individual in nature, nature and the human habitat. Prerequisite: 45 credit hours.

HUM 327-4 Critical Issues in the Study of the Future An exploration of central controversies and issues in the study of the future. (seminar) Prerequisite: 45 credit hours. Strongly Recommended: HUM 227.

HUM 330-4 Religion in Context An in-depth investigation of a specific case of religious history and tradition. Religion will be studied through the cultural and historical contexts that pervade and structure religious meaning and expression. Prerequisite: 45 credit hours.

HUM 332-4 Mythology in Context A detailed interdisciplinary study of the role of mythology within a particular culture or tradition. Prerequisite: 45 credit hours. Recommended: HUM 102.

HUM 340-4 Great Cities in Their Time An exploration of the cultural and intellectual accomplishments of a specific city that achieved prominence in a particular time period, and had substantial impact and influence on human civilization. Examines the political, social, religious, and cultural factors that help to explain a city’s significance and investigates the achievements of its citizens. Prerequisite: 45 credit hours.

HUM 350-4 Great Figures in Humanistic Tradition An interdisciplinary study of the life and works of a man or woman who has made a lasting contribution to the humanistic tradition in more than one field of endeavor (e.g., philosophy, politics, literature, economics, religion). Prerequisite: 45 credit hours. Students who have taken this topic under another Humanities course number cannot take this course for further credit.

HUM 375-4 The Woodsworth Seminar A special topic in the humanities to be offered by the Woodsworth chair. Prerequisite: 45 credit hours.

HUM 381-4 Selected Topics in the Humanities I Prerequisite: 45 credit hours

HUM 382-4 Selected Topics in the Humanities II (seminar) Pre-requisite: 45 credit hours.

HUM 383-4 Selected Topics in the Humanities III (seminar) Prerequisite: 45 credit hours.

HUM 385-4 Selected Topics in European Studies An interdisciplinary approach to a topic focusing on European thought and culture. Prerequisite: 45 credit hours.

HUM 390-4 Directed Studies in Humanities Prerequisite: two of any 300 level humanities courses or permission of instructor. This course may be used only once for credit towards a degree.

HUM 400-5 Humanities Study Project A substantial research and writing project culminating in the completion of an essay on a humanities topic. Prerequisite: completion of 75 credit hours which should include at least two 300 level humanities courses; the signature of a faculty member who is willing to supervise the project; approval of the humanities chair. This course may be used only once for credit towards a degree.

HUM 471-0 Practicum I First semester of work experience in the Humanities Co-operative Education Program. Students should apply to the faculty of Arts Co-op Education co-ordinator one semester in advance. Prerequisite: a minimum of 75 credit hours with nine credit hours in Humanities courses and a minimum CGPA of 2.75.

HUM 472-0 Practicum II Second semester of work experience in the Humanities Co-operative Education Program. Students should apply to the Faculty of Arts Co-op Education co-ordinator one semester in advance. Prerequisite: successful completion of HUM 471, a minimum of 45 credit hours with nine credit hours in Humanities courses plus a minimum CGPA of 2.75.

HUM 473-0 Practicum III Third semester of work experience in the Humanities Co-operative Education Program. Students should apply to the Faculty of Arts Co-op Education co-ordinator one semester in advance. Prerequisite: successful completion of HUM 472, a minimum of 60 credit hours with nine credit hours in Humanities courses plus a minimum CGPA of 2.75.

HUM 474-0 Practicum IV Fourth semester of work experience in the Humanities Co-operative Education Program. Students should apply to the Faculty of Arts Co-op Education co-ordinator one semester in advance. Prerequisite: successful completion of HUM 473, a minimum of 75 credit hours with nine credit hours in Humanities courses plus a minimum CGPA of 2.75.

HUM 495-2 Humanities Graduating Seminar A graduating course required for majors and joint majors, focusing on issues and texts in the humanities in the past, present and future. Prerequisite: 16 credit hours in upper division humanities courses or permission of the department. Restricted to majors and joint majors in Humanities. Grading will be on a pass/fail basis.
ITEC 322-1 Introduction to Computer Animation

This is the first section of an intermediate- to advanced-level computer graphics course. The emphasis is on technical aspects of 3D computer animation, introducing students to the basics of 2D and 3D computer animation and developing initial skills in 3D Studio MAX, a software tool commonly used in computer animation.

ITEC 323-1 Advanced Computer Animation Methods

Explores advanced computer animation methods and techniques and develops skills in implementing them in a self-contained production using a 3-D graphics software tool.

ITEC 325-1 Object-Oriented Analysis

Focuses on building practical requirements analysis and modeling skills using UML. Basic concepts of object-oriented methodology, UML, and development process are presented. Methods and processes covered include those used in building use case diagrams, class diagrams, system sequence diagrams and object contracts.

ITEC 326-1 Object-Oriented Design

Introduces interaction diagrams, patterns for assigning responsibilities and finishes the object-oriented design cycle by construction phase of mapping diagrams into the implementation code. Finally, the methods for mapping between UML class models and logical database schemas are presented.

ITEC 327-1 Object-Oriented Analysis and Design Project

Teams will be working on the project designing a complex system using object-oriented methodology. The project will involve system modeling and system implementation.

ITEC 328-1 Introduction to Operating Systems

Starts with an introduction to computer systems and modern operating systems. Introduces contemporary features of operating systems such as symmetric multiprocessing (SMP), Threads, and Microkernels.

ITEC 329-1 Operating Systems: Concurrency and Processor Scheduling

Introduces the various design issues that evolve when dealing with multiple processes. Problems that can arise in a multi-processing environment are deadlock and starvation. We look at ways to prevent these from happening and also give a general discourse of processor scheduling algorithms.

ITEC 330-1 Memory Management, I/O and File Systems

Describes the various mechanisms used to manage main memory with a particular emphasis on virtual memory management. In addition, I/O devices and their management are discussed. The course concludes with a brief description of file systems and their management.

ITEC 331-1 Network Architecture and Infrastructures

Deals with the architecture and infrastructure of telecommunication networks, computer networks; includes a review of queuing theory and its applications; plus an explanation of various network mechanisms at different network layers.

ITEC 332-1 Network Applications

Focuses on network programming and applications design, including a study of network application architectures including client-server, peer-to-peer, blackboard, and grid; using programming (Java/C/C++) and modeling (OPNET) explores the design, implementation, and workload characterization of network applications such as electronic mail, file transfer, remote login, web browsing to more advanced applications like streaming media, IP telephony, and instant multimedia messaging.

ITEC 333-1 Network Protocols

Deals with protocol engineering, and analysis of a range of computer network protocols such as TCP/IP, DNS, DHCP, LDAP, and IPSec.

ITEC 334-1 DSP Systems Design: Signal Processing

Discusses Digital Signal Processing (DSP) in comparison to familiar analog processing techniques. After a brief review of discrete-time signal properties, concepts of Fourier Transform, Z-Transform, and the concepts of sampling and quantization are introduced and reviewed.

ITEC 335-1 DSP Systems Design: Digital Filters

Digital Filters FIR and IIR filter design are presented, along with frequency-domain analysis. DSP implementation issues are discussed and DSP algorithms are designed, implemented and tested.

ITEC 336-1 DSP Systems Design: DSP Applications

Covers DSP applications including FFTs, correlation, signal synthesis, music and speech applications. Students design, implement and test a DSP project.

ITEC 337-1 Introduction to Databases

Practical, hands-on introduction to relational databases. It introduces the essential ideas and concepts of relational databases in a concrete and practical way, using many examples. It uses Microsoft Access 2000, but any relational database software could be used in its place (although the emphasis of certain units may need to be changed, depending on the features provided by the product).

ITEC 338-1 Designing Database Applications

Introduces the theory of relational databases. Many basic database concepts will be made more precise here, and some of the mathematical theory behind creating well-designed databases will be introduced.

ITEC 339-1 Database Implementation Project

This is a project course. The goal is to work in a team to develop an Access database that solves some interesting database problem (either one from a selected list or one of your own choosing). Each week, teams will give status reports on their progress. The course ends with a demonstration of the final database. Recommended co-requisites: INTO 210, 211, 212.

ITEC 401-1 Testing and Verification: Computer System Safety Design

Provides students with knowledge and understanding of safety issues when specifying, designing, testing, and maintaining a software or hardware product as a component of a safety-critical system. You will explore the most important concepts of system safety, including hazard analysis, failure modes and effect analysis, nature of faults and fault-tolerant techniques. In addition we will discuss rudimentary concepts of reliability engineering, illustrating the relation between system safety and reliability. Testing verification, validation and certification, including applicable industry standards, are also discussed.

ITEC 402-1 Testing and Verification: Hardware Testing

Provides students with knowledge and understanding of testing issues as related to the hardware components of a system. The main concepts of testing are introduced, and testing of both combinational and sequential circuits are discussed. Design for testability is presented, with a description of the most used techniques in this process.

ITEC 403-1 Testing and Verification: Software Testing

A practical approach to software testing and an introduction to general issues, fundamentals, methods and evaluation techniques. Activities include developing test cases for different types of applications, testing OO applications and reporting testing results.

ITEC 404-1 Advanced Topics: Distributed Computing

Distributed Computing deals with systems that use more than one resource (CPU, host, network, application), acting as one collective whole, to accomplish tasks. The course addresses issues such as resource sharing, concurrency, scalability, fault tolerance, and transparency.

ITEC 405-1 Advanced Topics: Ubiquitous Computing

Ubiquitous computing investigates the idea of “invisible-everywhere” computers—that is, many computers are available in the physical environment, but they are effectively invisible to the user.

ITEC 406-1 Advanced Topics: Autonomous Computing

Autonomous computing deals with smart components and objects that are capable of self-governing actions in dynamic and heterogeneous environments. This course studies theory and infrastructures that can be used to build autonomous systems.

ITEC 407-1 Geometric Modeling: Affective Spaces

Vectors, points, lines, planes, and frames are the essential objects upon which simple three-dimensional graphics and geometric operations are performed. Many introductory graphics texts treat the mathematics informally, presuming, for instance, familiarity with vectors and vector spaces, and introducing such concepts as the dot product at the point necessary to explain a particular graphics operation. This course constructs a series of mathematical structures: vector spaces, inner product spaces, affine spaces, Euclidean spaces and projective spaces. Each is related and each provides the mathematical machinery required to represent and manipulate one or more fundamental types of geometric object.

ITEC 408-1 Geometric Modeling: Solid Modeling

Representing solid objects is a crucial attribute of any decent system that deals in simulations of the real world. This part of the course will introduce you to two principal methods for representing solid objects. One Constructive Solid Geometry, is based on thinking of an object as a collection of primitive objects that combine together under rules of composition. The other, Boundary Representation, is based on elements in n-1 space. Each of these basic schemes conveys representational and algorithmic advantages and disadvantages.

ITEC 409-1 Geometric Modeling: Surface Modeling

Curves and surfaces have become fundamental objects in computer graphics, geometric modeling and animation. The mathematics underlying curves in conceptually clear yet notionally dense. This course progresses from simple to complex representations for curves, starting with the deCastlja algorithm for Bezier curves. The generalization of curves to surfaces is briefly reviewed.

ITEC 410-1 VLSI Design: Gate Array/Standard Cells

ITEC 411-1 VLSI Design: Full Custom Chip Design

ITEC 412-1 VLSI Design: Systems on Chip

ITEC 413-1 Computer Security: Fundamentals

Elaborates on the basic concepts in computer security. It also covers the mechanisms for other
security features. The fourth unit deals with database security, and requires some general knowledge of databases. The project component includes writing an essay based on some research of some broadly specified computer security issue.

ITEC 414-1 Computer Security: Practice

Presents cases or studies of the most popular operating systems, and an analysis of a collection of mistakes that should not be repeated. There is also an overview of virus protection and security evaluation methods. The hands-on component is based on a project in which students investigate and compare security features of two different operating systems.

ITEC 415-1 Computer Security: Distributed Systems

Builds on the knowledge and skills you have acquired while taking several other courses in the IT program area. More specifically, this course concentrates on distributed computer systems. It also investigates cryptography as the main technical means of ensuring security of such systems. The hands-on component is project-based. It is dealing with investigating various types of data encryption algorithms by developing computer programs that implement them.

ITEC 416-1 Introduction to Multimedia Systems

Introduces an introduction to the area of multimedia communications. We describe and distinguish multimedia signals from other types of signals, and discuss the need to convert analog multimedia signals into digital form for processing and transmission. The course provides a basic understanding of the concepts of information and compression, and provides an overview of existing multimedia formats and standards. We, finally, examine multimedia communication systems and their special requirements.

ITEC 417-1 Multimedia Systems: Compression Standards

Provides a deeper, quantitative understanding of the multimedia signal characteristics. We look at sampling and quantization as means of converting the real-world signals to the digital format for processing, and review Random Processes, Linear Estimation, and Information Theory to create a framework for the development of signal compression theories. We also analyze selected compression algorithms for multimedia signals, and examine existing compression standards for various multimedia formats. As part of the course the students implement a simplified version of a compression standard of their choice such as JPEG or MPEG/Audio using Matlab.

ITEC 418-1 Systems: Multimedia Communications

Considers the topic of multimedia communications. Following the introduction to multimedia and the analysis of compression, in this course we examine the special requirements that multimedia signals place on communications networks. Protocols accommodating multimedia communications, such as video-conferencing, are analyzed after a review of network architectures. Finally, multicafling and the MBONE paradigm are examined.

ITEC 419-1 Introduction to Computer Architecture

Covers the basic concepts, design, and organization of digital computers, and examines in detail the operation and performance criteria of each of the components of a computer system. The course is designed to provide a foundation in computer architecture so that students will be able to apply this knowledge to software engineering and future courses in high-performance computing.

ITEC 420-1 High Performance Computer Architecture

Covers different design models for building a high-performance computer. The course also covers processors, and the design of high-performance computers, ranging from single processor machines to a cluster of processors. It is designed to provide a foundation for future courses in high performance computing.

ITEC 421-1 High Performance Computing and OS Support

Focuses on high-performance computing implementations, and presents their advantages and disadvantages for solving particular problems. The course also describes various criteria for timing, profiling, and evaluating performance. This course applies theory and examines and applied infrastructures that can be used to build high-performance computing systems.

ITEC 422-1 Introduction to Computer Simulation

Introduces computer simulation fundamentals, tools and techniques. The aim is to provide an understanding of modeling and simulating issues to enable the student to apply related tools and techniques in simulating real-world systems. The hands-on component of the course will demonstrate how the same principles apply to very different areas, from models of simple technical devices to complex social systems, and how they can be implemented using advanced simulation software tools.

ITEC 423-1 Computer Simulation: Theory

Introduces computer simulation fundamentals, tools and techniques. The aim is to provide an understanding of modeling and simulating issues that will enable students to apply related tools and techniques in simulating real-world systems. The hands-on component of the course will demonstrate how the same principles apply to very different areas, from models of simple technical devices to complex social systems, and how they can be implemented using advanced simulation software tools.

ITEC 424-1 Computer Simulation: Project

ITEC 425-1 Web-Centred Technologies: Markup and Scripting Languages

Covers languages used for information exchange and presentation in web-based applications. You will master HTML, CSS, Perl and CGI, XML and XSLT, and will be able to choose the appropriate language for a particular problem.

ITEC 426-1 Web-Centred Technologies: Technologies for Enterprise Information Systems

Presents problems encountered in enterprise applications and introduces the web tier and enterprise tier technologies addressing those problems. Socket communication, Servlets, JSP and EJB are covered in detail.

ITEC 427-1 Distributed Web Technologies

Concentrates on distributed web technologies; their advantages and disadvantages for solving particular problems are presented. RMI, JNI, JavaSpaces, P2P, CORBA and .NET are covered in detail. Co-requisite: ITEC 426. Recommended: ITEC 252.

ITEC 600-1 Advanced Database Systems

This course expands the knowledge of the database systems into the area of multimedia database systems and techniques for indexing multimedia. Students will use advanced concepts and terminology of multimedia database systems. The focus is on the advanced database topics covering indexing mechanisms for multidimensional data, image databases, and text databases. Further the semi-structured data, XML and metadata standards are presented together with their application to multimedia databases and their querying.

ITEC 601-1 Computer Graphics

A condensed graduate course for IT majors, with the emphasis on technical aspects of 3-D computer graphics. Hands-on components include development of demo programs, some of them implementing advanced algorithms. Although students are allowed to use any programming language, Java is the recommended one. The course level is intermediate to advanced and requires from students good math background and strong programming skills. Students will acquire new skills in implementing major computer graphics concepts and methods whilst working on their individual projects. Some of these methods, such as smooth shading and rendering are rather advanced and require skills in developing efficient computer programs.

ITEC 602-1 Software Engineering Processes

The course builds on the knowledge of software engineering processes students may have acquired either from their previous study or via their practice in the software development. The course provides an overarching and formalizing view of the software engineering process and issues that impact on successful implementation. Starting with best and worst practices, the Capability Maturity Model and its critique are presented. Software development lifecycle with focus on the requirements process, architectural design and development phase are covered.

ITEC 603-1 Distributed Operating Systems

This course extends the fundamentals of operating systems and guides the students towards the recent advancements in distributed operating systems. The course develops a conceptual and practical understanding of distributed operating systems. It reviews the basic features of operating systems, discusses the core concepts of distributed operating systems, and enables students to specialize in specific topics.

ITEC 604-1 Stochastic Signal Processing

This course extends the fundamentals of operating systems and guides the students towards the recent advancements in distributed operating systems. This course develops a conceptual and practical understanding of distributed operating systems. It reviews the basic features of operating systems, discusses the core concepts of distributed operating systems, and enables students to specialize in specific topics.

ITEC 605-1 Adaptive Filtering Estimation

In conjunction with the stochastic signal processing course, this course provides a unified introduction to the theory, implementation, and applications of statistical and adaptive signal processing methods. Focus is on the key topics of spectral estimation, signal modeling and adaptive filtering.

ITEC 606-1 Network Security and Cryptography

A practical survey of network security fundamentals, applications, and standards. The emphasis is on applications that are widely used on the Internet and for corporate networks, and on standards, especially Internet standards that have been widely deployed.

ITEC 607-1 Intelligent Interfaces

This course examines how intelligent interfaces can facilitate human-computer interaction and collaboration. It introduces theories and techniques for intelligent interaction, and then looks at examples of multi-modal and conversational interfaces.

ITEC 608-1 E-Business Technology

This course examines E-Business protocols, such as auctions and fair division, from the perspective of game theory and computational complexity.

ITEC 609-1 Advanced Networking Protocols

This course critically analyzes some of the networking protocols and synthesizes an integrated review of the
IART 311-1 Thought Machines
Introduction to programming techniques for algorithmically driven media including artificial intelligence, stochastic, and complex processes for controlling audible and visible displays. Readings and discussion are conducted in critical issues in the historical development of interactive media.

IART 314-1 The Interactive Sensorium
Techniques of data capture using sensors and software processes for abstracting information from these interactive sources. Critical readings on issues of participant agency, identity and authorship are explored in cultural and technological contexts.

IART 315-1 Syn (Aesthetic) Images
Students explore the responsive side of the interactive assembly. Using audio and video signal processing techniques, students design display systems that can be driven by the sensing, analysis and generative machines developed in IART 313 and 314. Critical issues of the poetics of site, space, time and presentation are read and discussed.

IART 316-1 Information Design: Experience Design
Examines how the shifts in design that has resulted in a convergence of visual communications, product design and interaction design. Students will investigate design case studies related to experience design and develop weekly team projects that focus on the role of experience and interaction in design.

IART 317-1 Information Design: User Design
Explores user-based design methodologies related to interaction design. Students will investigate case studies that relate to the various parameters of "human-centered design" with particular focus on user-centered design, participatory design, contextual design and pattern language. Students will develop weekly team projects that explore the application of these methods.

IART 318-1 Information Design: Knowledge Design
Explores the relationship between content and context in interaction and experience design. Students will investigate case studies that explore contexts and their role in interaction design. IART 318 is a project-focused course allowing team projects to be developed based on previous work of IART 316 and 317.

IART 319-1 Electronic Theatre: Doubling-Performance
The historical relationship between the performer and the audience in art, from Dada to postmodernism. Projects will focus on developing and experimenting with performance techniques, models, and strategies. Particular emphasis will be placed on body traces: conceptual, imaginative, physical, and topographical. IART 320-1 Electronic Theatre: Virtual Performance
Performance Virtual representation of self and role-playing within networked environments (also known as online communities). Projects will explore the construction of personas in electronic theatre and multi-user environments in general.

IART 321-1 Electronic Theatre: Telematics-Performance
Students navigate and compile documentation of telematic work by artists and dancers before creating their own simple telematic installation. The students in teams address critical and aesthetic debates around telematics. Strategies for "staging" and audience reception are discussed.

IART 322-1 I Project: Processes and Authoring
Study of creativity theory and flow psychology to reflect on creative process. A long term complex design project is initiated in which to study both personal processes and the practice processes of professionals. Focus is placed on how form is generated and what drives concepts and programmatic design.

IART 323-1 I Project: Production and Distribution
Students will apply Flow psychology and primary generators to studying individual and team working process. Students will document a complex process and produce and communicate a complex challenging contextual design problem.

IART 324-1 I Project: Interface and Reception
Students propose a self-generated project and successfully define a creative problem: the single-most important step in any creative process. Have you correctly identified the problem? A comprehensive project proposal will result. Depth of project is now expected including user trials and scenarios that go beyond formal and theoretical resolutions. Projects must create new value through design and develop truly innovative solutions that humanize technology. Rigorous process and ideation will be undertaken on a course-long project.

IART 325-1 Foundational Narrative Concepts
Fundamental narrative concepts: story, plot, character, emotion, conflict, dramatic arc, resolution and discovery are explored. The student will apply these concepts in the critical analysis of works in several linear media forms.

IART 326-1 Multi-linear Narrative Structures
The aesthetics of interactive narrative environments (video games, hypertext, web). New analytical concepts will be introduced (such as immersion, spatiality, participation, agency). The student will develop a critical framework that incorporates these concepts into the basic narrative concepts of IART 325.

IART 327-1 Networked Narrative Environments
Narrative theories, structures, and processes native to networked environments. Narrative unravels and fundamental concepts such as character and plot are challenged. Instead, emphasis falls on dynamics of “dialogism,” mutability, and indeterminacy, and on the development of emergent and ambient narratives.

IART 328-1 Kinesthetic Space: Experience Space
Rigorous process and ideation will be undertaken on a course-long self-initiated project. A full prototype or proof of concept will be presented in a public forum. Students will encounter constructive criticism and reflect on the learning experience.

IART 329-1 Kinesthetic Space: Interpretive Space
The meanings embedded in space. Space is dynamic and full of meaning, not inert and empty. Space is inherently social. It’s defined by relationships and activities that operate through it. In turn, space helps determine the relationships and activities that unfold within it. It’s more than a simple container of “things.”

IART 330-1 Kinesthetic Space: In/Exterior Spaces
A very physical course, which tightens the focus directly around embodied aesthetic experience through the integration of architectural models, theoretical paradigms and physical improvisation using harnesses and other devices for traversing space. Experiments are documented phenomenologically.
IART 331-1 Extended Body: Senses and Systems
Introduces concepts of body interface, focusing on structuring interface systems based on models of mapping the human body into multi-sensory systems and theories and practices of embodiment. Students will construct an interface using video motion tracking.

IART 332-1 Emerging Body: Cyborgs and Cybernatics
Cybernics introduces contemporary cyborg and cybernatics theory in the context of body interface. Hayles’ theories of the post-human body provide an introduction to design explorations. Students design a wearable, portable or remote sensing input device using analog sensor technology.

IART 333-1 Improvisational Body: Design and Intention
Introduces theories of improvisation, and complexity theory to the development of body interface systems. Included are cognitive theories of enactment, awareness, intention, and indeterminacy. Students design an improvisational interface, which incorporates context-aware or intentional behaviors.

IART 401-1 Electronic Culture: Complexity
Connections between networked culture and sciences of chaos and complexity are explored. Field research and conferencing concentrate on the dynamics of systems, visual/spatial models of complexity, and the status of scientific knowledge in electronic culture. Recommended: IART 210, 211, 212 or IART 325, 326, 327.

IART 402-1 Electronic Culture: Identity
Building on the study of complex systems, this course investigates identity in terms of evolution and self-organizing systems. What are the adaptive implications of our interactions with intelligent machines? Weblogs serve as case studies in the emergence of networked identity.

IART 403-1 Electronic Culture: Society
The complexity of networked culture grows exponentially along with the speed of information processing. This course explores implications for the economy and organizations, and for the conduct of war, privacy, and surveillance. Weblogs serve as platforms for research and dialogue.

IART 404-1 Gaming: Personal to Social: Games as Rules
Among the oldest, most widespread forms of “interactivity,” games can be understood as formal systems of rules. In this course, readings and critical discussion frame the process of designing games as formal systems, focusing on fundamental principles for structuring interactivity.

IART 405-1 Gaming: Games as Play and Culture
Game rules give rise to play, which unfolds within specific cultural contexts. Combining game design with critical discussion, this course focuses on the emergence of play, the social and material dimensions of play, and on games as cultural artifacts.

IART 406-1 Gaming: Gaming and Prototyping
Students work individually and in teams to develop game concepts and move them through a series of prototypes to arrive at a final product.

IART 407-1 Object Interaction Design
Building on previously developed skills in design process and computer programming, this course will explore issues of interaction between the viewer and responsive objects. The course takes on a well-integrated approach to the creation and implementation of a sensor-based device that responds to a haptic input signal.

IART 408-1 Object Interaction Programming
Analyzing and applying programming and construction techniques for robotics, while exploring micro-controllers, sensors and triggers.

IART 409-1 Object Interaction Behaviours
Study of complexity and behavior theory in relation to the development of a current prototype. Students will explore interaction models for mechanical objects and robots.

IART 410-1 Meta-Systems: Strategic Processes
Artifact as the product of mechanical media. Students will examine the strategic design processes that evolved to support creative development and production of functional and cultural artifacts and apply this knowledge to the analysis of a product case study (1980-1995).

IART 411-1 Meta-Systems: Crossing Portals and Boundaries
Artifact as the product of digital media. Students will explore the changes in technology and creative methodologies for problem solving brought on by the rise of digital media (1980 and 2000).

IART 412-1 Meta-Systems: Abstracting out of Immersion
Artifact as experience. Students will explore new issues, ideas and techniques in creative problem solving as changes in technology lead to increased freedom with the introduction of interactivity and ubiquitous computing.

IART 413-1 Installation: Pre-production and Research
Part of a series of three courses (IART 413, 414, 415) which assist students in developing work for circulation in professional art exhibition venues and explore the fundamentals of project development from proposal through to presentation. A series of workshops will introduce the principles of fabrication, and address specific techniques for articulating spatial arrangements and lighting. IART 413 addresses issues which arise during the pre-production phase of project development and planning. Students will establish a methodology for managing the production process from conceptualization to execution, including budgets, time lines, case studies, and artist statements.

IART 414-1 Installation: Programming the Design of Experience
Addresses issues of production and fabrication, with particular emphasis on materials, surfaces, and spatial arrangements. Project teams will develop a series of installation prototypes and models to assist in the planning and visualization process.

IART 415-1 Structuring Liminal and Boundary Space
Addresses site-specific concerns related to exhibition design and physical installation. Issues of public interaction, testing, durability, publication, and professional presence will be discussed. Students are expected to complete the proposed installation, and to present the work within a public context.

IART 416-1 Immersive Environments
Introduces students to both physical and virtual immersive environments and worlds. A large range of immersive possibilities will be explored as both define immersive space and to begin to understand how to author immersive spaces.

IART 417-1 Authoring Immersive Environments
Begins the planning and execution stage where students will explore real-time dramatic performance art in immersive environments. This course culminates in a public interactive narrative performance in IART 418. In this course we design, script, create actor roles, build 3d immersive sets, rehearse and document the plan of our class conceived immersive performance that delves into the blurring definitions of author and audience, fact and fiction, physical and virtual.

IART 418-1 Performance in Immersive Environments
Students will execute a public interactive narrative performance that combines environment, online audience and actors, dramatic structure and social community dynamics. Planning and setup for this performance occurs in IART 417.

IART 600-1 Performance in Media Practice and Theory
This course challenges students to expand their practical and theoretical approaches to performance by devising performance experiments with camera mediated telematic links and avatar-based MUEs (multi user environments) while exploring critical discourses around embodiment, virtuality, gender and communication.

IART 601-1 The Body: Practice and Theory
This course is designed to explore philosophical and critical approaches to embodiment and to challenge students to apply these ideas to responsive spaces, artificial life and wearables. Phenomenological skills for analyzing new physical and technological hybrids will be cultivated.

IART 602-1 Non-linear Narrative
This course traces narrative concepts and processes, and their transformation across media/domains. Students investigate narrative dynamics, structures and aesthetics in linear and multi-linear media. The course develops analytical and critical skills through readings, discussions, and the evaluation of interactive experiences.

IART 603-1 Interface and Navigation
This course explores and critiques a range of contemporary design approaches to interface and navigation. Research projects are in the form of a design brief, which applies contemporary and historical models of interface, and explores interface mental models as defined by representation, design and production. Topics include multi-sensory interfaces, gaming interface, emerging device design, cognitive theories of enactment and navigation.

IART 604-1 Electronic Culture
This course introduces key concepts in current discussions of electronic culture, concentrating on complexity, identity, economy and space and time; and explores their use as both analytical tools and frameworks for creative practice.

IART 605-1 Authoring Methodologies
A number of authoring methodologies will be examined in the context of new media. A collaborative project will then be designed and implemented using one or more of these techniques. Authoring Methodologies have broad applications in a variety of development contexts including interactive arts, IT, and management. The reading resources for the course are drawn from these three areas.

IART 606-1 Multimedia Programming
This course will provide an introduction to programming theory and techniques for audio, video, graphics and text manipulation. The concept of code as an artistic material and formal compositional process will be examined within a self-directed activity set.

IART 607-1 Designing Virtuality
This course explores and critiques a range of contemporary design approaches to the concept of virtuality. Topics include virtuality and materiality, information design, and post-cybernetic theory particularly in relation to representation, remote sensing and display, networked environments and communities, augmented realities, and tele-presence.
IAT 608-1 Experience Design
This course examines the emerging concept of experience design. Computing technology and its use has fundamentally changed design fields. It has emphasized the interaction and experience of the user. This course provides methods and tools for students to critically analyze and generate experience design artifacts and events.

IAT 609-1 Design and Creative Methodologies
This course explores and critiques a range of contemporary creative and design methodologies. Topics include strategies from a variety of disciplinary practices including design process, scenario building, and theatrical structures. This includes improvisational processes, collaborative processes, user-centered processes in networked environments and communities, technologically mediated tools and environments used in the support of creative and design processes.

IAT 611-1 Reception Analysis
The course introduces the learner to the terminology, concepts and techniques of reception analysis. The course includes several analytical approaches, but favors an understanding of the reader’s active role in the construction of media meaning.

IAT 612-1 Multimedia Applications
In this course students will explore multimedia applications to produce an interactive non-sequential work using graphics, sound, text, and typography. Through on-line collaborative exchanges, learners will research and analyze contemporary works and technical resources. Conceptual problem solving activities will be used in class to emphasize visual literacy and foster the development of a personal visual vocabulary.

IAT 613-1 Kinesthetic and Active Space
Kinesthetic and Active Space explores convergences between physical, architectural, perceptual, invisible and networked space from the starting point of human kinesthetic sensitivity. This course takes a fundamentally dynamic approach to theoretical paradigms and grounds these in physical experimentation.

IAT 614-1 History of Art and Technology
This course will provide students with an historical overview of the dynamic relationship between art and technology. It will show how human creativity gives rise to technical innovation and how those innovations shape cultural expression. Most importantly it will demonstrate how digital media is an extension of human mind/body/culture rather than something being imposed on it. Students will be strongly encouraged to study in teams.

IAT 691-1 Directed Studies
IAT 692-1 Directed Studies
IAT 693-1 Directed Studies
IAT 694-2 Directed Studies
IAT 695-2 Directed Studies
IAT 696-2 Directed Studies
IAT 697-3 Directed Studies
IAT 698-3 Directed Studies
IAT 699-3 Directed Studies
IAT 898-6 MASc Project/Research Paper
IAT 899-6 PhD Thesis

Interactive Arts and Technology

IAT 100-3 Systems of Media Representation
Systems of two dimensional, three dimensional and interactive visual representation are surveyed as they apply to both physical and digital media. Classical notions of 2D mark making and 3D linear perspective are introduced along with contemporary alternatives with digital media. Topics in interactivity include narrative concepts, color and composition as meaning, and modes of perception and reception. The course culminates with the development of an interactive time-based group project centered on new media, user interfaces and interactive space and delivery. Students with credit for IAT 117, 118, 119 and 120 may not take this course for further credit.

IAT 101-3 New Media Images
The social and psychological effects of technological developments on contemporary art and design practices are explored. An introduction to basic semiotic and design terminology provides a foundation for discussing the cultural role of visual communications. Conceptual and structural frameworks for developing non-linear narratives are considered and implemented through basic digital video production and editing techniques. The role of network structures in shaping art and design practices are examined and developed in relation to interactive digital applications. Students with credit for IAT 121, 122, 123 and 124 may not take this course for further credit.

IAT 200-3 Cognition for Design Science
An introduction to cognitive and perceptual processes as foundational to cultural frameworks and environments for work, learning and play. Students will use problem-solving and collaborative methods to explore a series of design cases on topics in cognitive science. The course will introduce issues of how individuals think, model, and perceive; how groups perceive and collaborate; and how these compare to, and differ from, machine cognition. Drawing liberally from theories in psychology, neuroscience, linguistics, philosophy, sociology, computer science and education, the course emphasizes a multidisciplinary approach to design applications. Prerequisite: Students must have completed at least 24 credits, including IAT 100, IAT 101, CMPT 120, and CMPT 125 or equivalents. Recommended: IAT 114

IAT 201-3 Usability in Interactive Environments
Explores the theoretical foundation, philosophy and practical application of techniques for analyzing how people interact with designed environments covered by the 4 IAT streams, including performance environments, human systems, new media, etc. A major goal is to design environments should be designed to suit human capabilities. Students will engage in simple empirical usability studies in conjunction with active research projects within SIAT to gain experience in current usability practice. Prerequisite: Students must have completed at least 24 credits, including IAT 100, IAT 101, CMPT 120, and CMPT 125 or equivalents. Recommended: IAT 114.

IAT 203-3 Cultural Icons and Popular Arts
Introduction to the interdisciplinary field of cultural studies and the historical backdrops of popular arts. Students investigate early sacred imagery, royal spectacle, the rise of museums, world expositions as well as traditions in which artistic practice are incorporated into everyday life. Through discourse analysis, students explore how the emergence of photography and an international avant-garde influence narratives around cultural production. With the advent of television and film, popular arts gather momentum and prominence. Finally, students examine the growing interpenetration of marketing, entertainment, and art, as reflected in key areas of practice, including popular music and anime. Prerequisite: IAT 100, 101. Students with credit for IAT 210, 211 and 212 may not take this course for further credit.

IAT 204-3 Encoding Media Practice
Introduction to programming techniques for new media artists and designers using a visual dataflow language suitable for the rapid prototyping of expressive media systems. Programming techniques are explored within the task environment for music, speech, animation, cinema and their performance. An approach that offers new perspectives where semi-automated media is developed through a series of composition and design projects in software across media. These projects will address the aesthetic, symbolic and poetic potentials of new media in the context of an encoded media practice.

IAT 206-3 Media Across Cultures
A critique of current approaches to media and the design of cultural interfaces. Cultural differences in art, design and communication are examined and related to current trends in new media. Culturally appropriate alternatives to ethnocentric norms are explored through creative media projects. (Lecture/Lab)

IAT 208-3 Drawing as Inquiry
An overview of the various forms and languages of drawing as both a critical and creative research tool. Activities and projects in each unit offer opportunities to understand and apply drawing as a medium for visual thinking and conceptualization. Related social and gender concerns are investigated to contextualize figurative representations within a broader cultural framework. Prerequisite: IAT 101, IAT 101, CMPT 120, CMPT 125, IAT 114 or equivalents. Students with credit for IAT 216, 217 and 218 may not take this course for further credit.

IAT 209-3 Critical and Creative Thinking
Identifies characteristics of critical thinking and innovative and creative thinking, and develops a framework for discussing and understanding concepts of knowing, questioning, and developing and presenting ideas. Students learn to build an argument through rhetorical methods, explore the history and formulation of criticism, develop and formulate questions as a mechanism for constructing and supporting concept building. Students will explore the characteristics of innovation and creativity, including the importance of informational mediaries such as “opinion leaders” and “change agents.” Prerequisite: IAT 100, 101.

IAT 230-3 Design for Digital Environments
Communication Design is used as a medium through which to introduce design process, design methods, and the relationship of experience to emergent interactive design thinking. Projects are applied, but grounded in historical context and focus on design as a language-based activity. The course builds from simple graphic image and communication problems to grounded brand experience and marketing issues, to urban scale issues and considerations. Prerequisite: IAT 100 and 101. Students with credit for IAT 213, 214 and 215 may not take this course for further credit.

IAT 231-3 Visualizing Interaction
Visualizing Interaction explores the theory and development of visual thinking and communication skills students will require to investigate and communicate the dynamics of interaction. Students will be introduced to a range of rapid visualization techniques including 2-D and perspective drawing, schematic representation, information graphics, visual explanations and storyboarding through progressive series of visualization projects. Prerequisite: IAT 100, 101

IAT 232-3 Prototyping and Human Factors
Prototyping plays a critical role in the design, development and assessment of the physical relationship between people and technology. This course examines the role and value of different prototyping techniques in assessing human factors and ergonomics as well as the functional and visual characteristics of new design concepts. Projects will introduce students to the concept of human factors.
and ergonomics and explore physical prototyping and design methods for interaction designers. The course will have a basic understanding of how computer graphics systems work; skills in writing programs to display geometric information for graphic design; ability to solve geometric problems using transformations, geometric representations and the basic algorithms of computational geometry; and familiarity with various common mathematical notations for representing spatial objects. Prerequisite: CMPT 125, MATH 232. Students with credit for ITC 271, 272 and 273 may not take this course for further credit. CMPT 261 and IAT 261 are identical courses; at most one may be taken for credit.

IAT 241-3 Animation
An introduction to techniques for 3D computer animation such as keyframing, performance animation, motion capture, and simulation. The course also includes an overview of story-telling, scene composition, lighting and sound track generation. The course will explore current applications of computer animation such as facial animation, behavioral animation, artificial life and interactive systems. Students with credit for IART 219, 220 and 221 may not take this course for further credit.

IAT 242-3 Moving Images
Reviews and consolidates the fundamentals of digital video production and camera and composition, the role of sound, lighting, and continuity and montage editing. Students will review and analyze works from traditional cinema and from contemporary digital video. The course will reinforce fundamental skills and extend student's abilities to use a range of digital production, post-production, and presentation techniques. Prerequisite: IAT 100, 101.

IAT 243-3 Sound Interaction
An introduction to the acoustic and psychoacoustic properties of our sense of space as provided by sound and their digital mediation. Recording, processing and interactive audio design are introduced and used for the composition of audible spatial environments. Students learn the theory and practice of sound as it interacts with visible images and explore fundamental audio techniques for interactive audio-visual presentation. (lecture/lab) Students with credit for IART 243, 244 and 245 may not take this course for further credit.

IAT 244-3 Digital Photography I: Post Photography
An introduction to digital photography and photographic image modification through the use of computer technology. Students will build skills and techniques in digital photography and image processing for digital printing, the web, and interactive multimedia. Emphasis is placed on acquiring digital photographic skills based on proficiency through the appropriate use of software and image editing tools. Image formatting possibilities are investigated, along with aesthetic/functional aspects of site navigation, design, sequence and consistency. Students with credit for IART 222, 223 and 244 may not take this course for further credit.

IAT 261-3 Spatial Computing
An exploration of the major concepts of analytical and computational geometry and an introduction to tools for programming and displaying the results. Students completing this course will have a basic understanding of how computer graphics systems work; skills in writing programs to display geometric information for graphic design; ability to solve geometric problems using transformations, geometric representations and the basic algorithms of computational geometry; and familiarity with various common mathematical notations for representing spatial objects. Prerequisite: CMPT 125, MATH 232. Students with credit for ITEC 271, 272 and 273 may not take this course for further credit. CMPT 261 and IAT 261 are identical courses; at most one may be taken for credit.

IAT 265-3 Multimedia Programming for Art and Design
Using cases from topics such as animation, cinema, music and design, this course introduces a variety of programming tools and techniques. Practical use of multimedia scripting languages and authoring environments is covered in the context of a series of composition and design projects. Code libraries and programming techniques for specific media will be introduced. Assessment will be based on both the programming and the expressive use of programs in each media context. Prerequisite: CMPT 125 (or equivalent first programming course). Students with credit for IART 206, 207 and 208 may not take this course for further credit. CMPT 265 and IAT 265 are identical courses; at most one may be taken for credit.

IAT 301-3 Interactive Media Design
Students learn programming and machine perception techniques useful in the design of audiovisual media display systems. Readings, discussion and writing are conducted in critical issues in the historical development of interactive media including the poetics of site, space, time and technology. Prerequisite: Completion of 48 credits including IAT 204. Students with credit for IART 313, 314 or 315 cannot take this course for further credit.

IAT 302-3 Cognition in Interactive Environments
Examines aspects of psychology and cognitive science that can inform the design and testing of large and growing class of interfaces: VR, AR, ambient intelligence/ubiquitous/mobile computing, public and situated displays, etc. These methods extend HCI to create a complex systems approach to high-bandwidth human-computer interaction design. Topics covered include Marr's computational theories, and algorithmic and implementation levels of analysis, human cognitive architecture and models of embodied, enactive and distributed cognition. Methods discussed include cognitive architecture-based task analysis, linear and nonlinear dynamics modeling, toy world methodologies, and mixed qualitative/quantitative research methods. Prerequisite: Completion of 48 credits, including IAT 200.

IAT 312-3 Foundations of Game Design
Includes the fundamentals of game design and the analysis of game experience. It will examine game as a set of rules, game as the experience of play, and game as a culturally situated phenomenon. Students will analyze and produce a wide range of games in both electronic and non-electronic media. Prerequisite: Completion of 48 credits; students with credit for IART 404, 405 or 406 cannot take this course for further credit.

IAT 313-3 Narrative and New Media
Examines the emergence of narrative and story. It includes foundation principles and concepts from traditional linear narrative forms. The course extends these narrative concepts to multi-linear and to networked narrative forms. Students will analyze both linear and multi-linear narrative works. Prerequisite: Completion of 48 credits; students with credit for IART 325, 326, or 327 cannot take this course for further credit.

IAT 320-3 Body Interface
Body Interface explores ideas of embodiment, knowledge, and space within the human relationship to technology. This course introduces students to research in the area of embodiment, and explores concepts of embodiment, design, and the production of artistic interface. Prerequisite: Completion of 48 credits, including IAT 301; students with credit for IART 331, 332 or 333 cannot take this course for further credit. Recommended: IAT 321 and IAT 322.

IAT 321-3 Kinesthetic Space
Kinesthetic Space takes an embodied approach to design and artistic practices. An understanding of kinesthesia and kinesthetic methodologies are introduced by combining theory and practice. Students use their bodies as starting points for understanding the logic of artistic, social and architectural space, plus the space of signs and devices. Their projects are based on enhanced or transformed physical and perceptual awareness, and are complemented by theoretical discourse in the area of somatics, architecture and technologically mediated space. Classes are part seminar and part physical workshop. Prerequisite: Completion of 48 credits. Students who have taken IART 328, 329 or 330 may not take this course for further credit. Corequisite: IAT 301 is recommended.

IAT 322-3 Current Topics in Performance and Media Arts
This senior level course addresses current topics relating to performance and media arts in the context of Interactive Arts and Technology. Practices and conceptual frameworks from academic and professional worlds of interactive art will be examined. Students will read, conceptualize and articulate debates based on their own developing interactive arts practices. Prerequisite: Completion of 48 credits; students with credit for IART 413, 414 or 415 cannot take this course for further credit. Recommended: IAT 321 and IAT 323.

IAT 323-3 Interactive Performance and Installation
This course introduces the performing body into the contexts of interactive arts and technology. Students are asked to reflect upon ideas of lived experience, presence, and interactivity as they create projects that take the form of interactive installation or performance. Specific contextual background includes references to the performance practices of 20th century artists, combined with an emphasis on improvisation and spontaneity. Performance is understood through the filter of locative media and physical and/or virtual networks. Projects combine computational and interaction models to create interactive experience. Prerequisite: Completion of 48 credits; students with credit for IART 413, 414 or 415 cannot take this course for further credit. Corequisite: IAT 301 is recommended.

IAT 331-3 Interaction and Reception
Explores the relationship between designed products, services, systems, and the larger context in which design operates. Design is considered as a form of language that can be analyzed using ethnography and cultural theory. Once design is understood as a language, we turn to the contexts for the use of design and explore what languages form the reception and interactive sites for cultural communication and meaning achievable through design. Prerequisite: Completion of 48 credits, including IAT 230; students with credit for IAT 310, 311, or 312 cannot take this course for further credit.

IAT 332-3 Interaction Design Evaluation
Examines evaluation concepts and methods for interaction designers. The course analyzes the range of evaluation approaches including informal evaluation, usability, field studies, heuristics, critique and discursive evaluation. Students will explore techniques for feedback including observation, interviews, expert reviews, use experience, modeling, and critical analysis. Underlying concepts of evaluation including scientific observation, ethnography, phenomenology, and aesthetics will be discussed. Students will learn how to design and implement appropriate evaluation studies for a range of ubiquitous computing environments. Prerequisite: Completion of 48 credits, including IAT 302.

IAT 333-3 Interaction Design Praxis: Practice and Methods
Examines concepts of design practice and related design methods for interaction designers. Students will be introduced to concepts of practice such as reflective practice, embodied practice and pattern language. Students will review a range of methods focused on conceptualization, use experience,
situated use, and prototyping, including scenarios, role-playing, participatory design, ethnographic methodologies and the use of prototypes. In addition to readings, students will engage in exploratory design workshops and projects. Prerequisite: Completion of 48 credits, including IAT 232 and IAT 331; students with credit for IART 316, 317 or 318 cannot take this course for further credit. Recommended: IAT 302.

IAT 335-3 Analysis of Design Situations
Examining methods of analysis and gathering requirements for design situations as they relate to the range of ubiquitous computing applications. The course will examine the conceptual frameworks for understanding human activity and design situations. Students will review a range of methods for requirements gathering, interviews, observation, and ethnographic and ethnographic-technological techniques. Students will also study qualitative, quantitative, and interpretive modes of analysis of data and how to support their work with these findings. Students will engage in a range of case-stories and projects focused on user analysis. Prerequisite: Completion of 48 credits, including IAT 232 and IAT 331. Recommended: IAT 302.

IAT 338-3 Interactive Prototypes
Developing software, hardware and prototype versions of interactive products and systems. The emphasis will be the application of software tools such as MAX and Flash that enable students to develop working prototypes of their projects for design and testing purposes. Types of projects will include software, interactive systems, network and web-based systems, wearables, and mobile devices. Prerequisite: Completion of 48 credits, including IAT 231 and IAT 232. Students with credit for IART 313, 314 or 315 cannot take this course for further credit.

IAT 340-3 Experimental Sound Design Studio
Advanced techniques in real-time audio digital signal processing appropriate for game development and virtual environments are explored including interactive speech, music and sound effects. Students will design and build dynamic, navigable and immersive audio settings embedded in 3D graphic environments. Prerequisite: Completion of 48 credits, including IAT 243.

IAT 342-3 Animated Image Design Studio
Building on skills learned in the 241 Animation course, this course "Animation Image" introduces non-programming advanced 3D computer animation techniques. The course mixes 1) hands-on studio-based projects and 2) a non-technical survey of computer animation research areas. The studio track culminates in a team-based animation project where students use their 3D animation skills and artistic knowledge to create a linear or interactive project such as a short film, 3D world, or interactive game or visualization. The conceptual track surveys current research topics in computer animation such as facial animation, behavioral animation, artificial life and interactive systems. Prerequisite: Completion of 48 credits, including IAT 241.

IAT 351-3 Interaction Technology
Key areas of technology for supporting user interaction for interactive work, learning and play are introduced, employing tactile, aural, and visual senses of humans. Technologies used in sensors and actuators for robotic systems are reviewed for their applicability to user-centered interaction. Prerequisite: Completion of 48 credits, including CMPT 225. Recommended: IAT 325-3 Knowledge Media An introduction to knowledge media as the study of how people design, create and use technologies that convey knowledge. The emphasis is on how such media support people in work and learning contexts. A range of technologies is treated in a comparative manner, addressing both utility for intended tasks and design and implementation. Particular topics include comparison of humanistic and technological views of knowledge; group creation of knowledge; visualization and visual inference; user modeling; collaboration and knowledge creation; computer-supported cooperative work; participatory design; and knowledge networks and communities. Prerequisite: Completion of 48 credits, including CMPT 225.

IAT 353-3, 354-3, 453-3 and 454-3 Human-Centered Systems Design Studio Courses I, II, III and IV
These are four core upper division design studio courses in the Technology in Art and Design (TAD) Stream. Their aim is the acquisition of relevant knowledge and skill in designing, implementing, and evaluating human-centered systems. Each of the four courses has similar structure: workshops around key issues arising in the particular human-centered system being designed and a semester-long project with multiple milestones as the primary assessment device. Prerequisite: Completion of 48 credits, including CMPT 225. Recommended: IAT 200, IAT 201.

IAT 386—387-3 Directed Studies
Independent reading and research topics selected in consultation with members of the SIAI faculty. Prerequisite: Completion of 48 credit hours. No more than 6 credits of directed studies may be taken, and permission of the instructor and School are required.

IAT 391-3 Italian Design History
This course is part of the 9-12 credit ItaliaDesign Field School curriculum. The first course of four is taught in Vancouver 5 weeks prior to departure for Italy. Students prepare research plans for use once they arrive at each of four destinations (Rome, rural Tuscany, Florence, Milan). The course covers histories of city plans, landscape and urban design in these venues that live on in contemporary Italian design. Prerequisite: Completion of 48 credits. Corequisite: IAT 392/ IAT 393 (ItaliaDesign Field School).

IAT 392-3 Italian Design in Context
This course is part of the 9-12 credit ItaliaDesign Field School curriculum. Field school instruction is in three phases: 1) Vancouver: methodology and preparatory research work; 2) field study on-site in Italy; 3) synthesis and writing-up of research and final arguments. This course fulfills one half of phase 2 fieldwork in Italy. Prerequisite: Completion of 48 credits. Corequisite: IAT 391/ IAT 393 (ItaliaDesign Field School).

IAT 393-3 Interaction Design Workshop I
Part of the 9-12 credit ItaliaDesign Field School curriculum. Projects are completed in Florence and Milan. Students read, are examined on, and then apply findings into an ethnographic analysis - a study of the people and city of Florence as exemplars of “brand Italia”. The second study takes place in Milan, where students examine the particularities of the Milanese context and particularly Northern Italian industrial innovation practices. Italy is presented as a potential model of “knowledge economy” from which Canada and specifically British Columbia, learn “learn”. Activities in Milan are framed by a series of tours and talks by leading contemporary design firms, distributors and manufacturers. The course asks: Why is Italian Design so successful? How is design tied to culture? How is the Italian landscape for design different from the Canadian context? Prerequisite: Completion of 48 credits. Corequisite: IAT 391/ IAT 392 (ItaliaDesign Field School).

IAT 394-3 Interaction Design Workshop II
Part of the 9-12 credit ItaliaDesign Field School curriculum, this is an optional fourth course and directed study option. Participants propose a topic to the Field School instruction team prior to departure to Italy and sharpen their focus as other studies impact on assumptions. Students can work individually or in teams on research or applied projects. Topics must be approved by the instructor(s). Research must also complement the ongoing ItaliaDesign repository project. Projects focus on furthering knowledge of Italian Design and Innovation practices and extending the course concepts. Prerequisite: Completion of 48 credits, including IAT 391, 392 and 393.

IAT 400-3 Interdisciplinary Design Studio
Students work in teams to develop and evaluate a design addressing a complex, ill-defined problem. The actual design problems addressed vary from year to year and relate to current social and technological issues in society. The course covers the entire spectrum of the design process from problem definition to prototype and a broad range of perspectives including market feasibility, manufacturing, life-cycle implications, usability and social reception. Prerequisite: Completion of 69 credits; students with credit for INTD 401, 402, 403, 404, 405 or 406 cannot take this course for further credit.

IAT 401-3 Electronic Culture
Electronic culture explores the dynamics of networked culture, and related tools and practices emerging on the World Wide Web. Students study scientific models of emergence, networks, and complexity, and use them to investigate networked social forms and the cultures that surround them. These include the subcultures of wikis, weblogs, and open source, and networked authoring tools and skills associated with them. Research extends to broader societal trends including the accelerating pace of change, disruptive technologies, “smart mobs,” netwar, and “netdemocracy.” Software diagramming tools are used to visualize and investigate networks and complex systems. Prerequisite: Completion of 69 credits; students with credit for IART 401, 402 or 403 cannot take this course for further credit.

IAT 410-3 Advanced Game Design
Involves further work in the production and analysis of electronic games. Students will review a variety of electronic game forms, and will analyze a series of games from the perspective of game design theory and interactive multi-mediated experience. Students will produce a series of short game exercises and one term-project final game. Prerequisite: Completion of 69 credits, including IAT 312: Foundations of Game Design. Students with credit for IART 404, 405 or 406 cannot take this course for further credit.

IAT 411-3 Ubiquitous, Mobile and Wearable Computing Design Studio I
Focuses on the design, fabrication and testing of prototype interactive products and systems. The thematic investigation will change each year and will focus on topics central to evolving developments in ubiquitous, mobile and wearable computing. Students will be expected to produce operational prototypes for testing and evaluation. Prerequisite: Completion of 69 credits, including IAT 231 and IAT 232. Recommended: IAT 332, IAT 333, IAT 335, IAT 338.

IAT 412-3 Ubiquitous, Mobile and Wearable Computing Design Studio II
Focuses on the design, fabrication and testing of prototype interactive products and systems. The thematic investigation will change each year and will focus on topics central to evolving developments in ubiquitous, mobile and wearable computing. Students will be expected to produce operational prototypes for testing and evaluation. Prerequisite: Completion of 69 credits, including IAT 231 and 232. Recommended: IAT 332, IAT 333, IAT 335, IAT 338.
IAT 420-3 Exhibiting Interactive Installation and Performance Design Studio
Provides a context for students to create an installation or performance and to learn the stages and scope of professional exhibition. Working in teams, the students will learn skills for exhibiting, promoting, marketing, audience and space management, writing strategies for press, grants & conference presentations, creating a viable project web presence, plus infrastructural details such as shipping, set up and take down. After the completion of this course students will feel confident to embark upon the professional exhibition process.
Prerequisite: Completion of 69 credits.

IAT 422-3 Wearing Technologies, Fabricating Experience Design Studio
Focuses on the design, fabrication and testing of prototype interactive products and systems. The thematic investigation will change each year and will focus on topics central to evolving developments in ubiquitous and wear technologies. Students will be expected to produce operational prototypes for testing and evaluation. Prerequisite: Completion of 69 credits. Recommended: IAT 320.

IAT 430-3 Design Research
Explores how the practice of design helps to explain the world and how we can find ways to improve the way we design. This course introduces the importance of design research. Students will review case-stories of research problems in design, research methods relevant to design, and how to present research outcomes. Students will be expected to explore and complete their own research investigation into a design-related research problem.
Prerequisite: Completion of 69 credits, including IAT 332, 333, 335 and 338.

IAT 431-3 Advanced Topics in Interaction Design
Allows for in-depth exploration of a specific design, cultural and/or social theme and its impact on design.
The thematic investigation will change each year and will focus on topics not typically covered elsewhere in the Interaction Design curriculum. Possible themes include sustainability, design for developing nations, globalization and localization, and other relevant and/or precedent issues.
Prerequisite: Completion of 69 credits, including IAT 332, 333, 335 and 338.

IAT 443-3 Interactive Image, Sound and Motion Design Studio
An intermediate level investigation of interactivity explored through media, in the context of current display technologies relevant to Interactive Arts and Design. Examines the computational and compositional aspects of image, sound and video, including 3D animation. Students explore real-time interaction and representation within a range of display scales ranging from cell phone, PDA to larger scale displays such as CAVE environments. Students will design, produce and critically appraise works within responsive interactive environments. Project context could vary from mobile locative media to immersive VR spaces.
Prerequisite: Completion of 48 credits, including IAT 242 and IAT 301.

IAT 445-3 Immersive Environments
Introduces students to both physical and virtual immersive environments and worlds. A large range of immersive possibilities will be explored as to both define immersive space and to begin to understand how to author immersive systems. Once fundamentals are established the planning and execution stage begins where students will explore real-time dramatic performance art in immersive environments. This course culminates in a public interactive narrative performance or product. In this course we design, script, create actor roles, build 3D immersive sets, rehearse and document the plan of our class conceived immersive performance that

delves into the blurring definitions of author and audience, fact and fiction, physical and virtual.
Prerequisite: Completion of 48 credits; students with credit for IAT 416, 417, or 418 cannot take this course for further credit.

IAT 451-3 Design of Ubiquitous Environments
Ubiquitous environments are those in which information and control services are available for casual use. The design of such environments requires in-depth understanding of patterns of use, user-centered design processes and knowledge of enabling technologies. This course covers all three areas, with particular emphasis on how technologies enable human action. The well-known example of a smart house is used to motivate and demonstrate how ubiquity can be a design principle.
Prerequisite: Completion of 48 credits, including CMPT 225.

IAT 452-3 Design Environments
The domain of concern for this course is representation authoring in design, where “design” is taken broadly as a process of making proposals for change. It uses specific advanced design systems as cases, for example, drawing systems, parametric modeling systems and games authoring environments.
Prerequisite: Completion of 48 credits, including CMPT 225.

IAT 453-3 and 454-3 Human-Centered Systems Design Studio Courses I and III
IAT 353-3, 354-3, 453-3 and 454-3 are four core upper division design studio courses in the Technology in Art and Design (TAD) Stream. Their aim is the acquisition of relevant knowledge and skill in designing, implementing and evaluating human-centered systems. Each of the four courses has similar structure: workshops around key issues arising in the particular human-centered system being designed and a semester-long project with multiple milestones as the primary assessment device.
Prerequisite: Completion of 69 credits, including two of IAT 353, 354 and 453.

IAT 480-3 Special Topics in Interactive Arts and Technology (Arts)
This course number has been allocated for Special Projects in the School of Interactive Arts and Technology. Specific details of courses to be offered will be published prior to registration each semester.
Prerequisite: Completion of 69 credits and permission of the School.

IAT 481-3 Special Topics in Interactive Arts and Technology (Arts)
This course number has been allocated for Special Projects in the School of Interactive Arts and Technology. Specific details of courses to be offered will be published prior to registration each semester.
Prerequisite: Completion of 69 credits and permission of the instructor.

IAT 482-3 Special Topics in Performance and Media Arts
A specific set of debates or practices alive and relevant to the professional interactive arts world will be selected to form the basis of this course.
Prerequisite: Completion of 69 credits and permission of the instructor.

IAT 483-3 Special Topics in New Media Environments
A specific set of debates or practices alive and relevant to the professional new media world will be selected to form the basis of this course. Students will be guided as they research with considerable depth the topic(s) from the perspective of practice and theoretical discourse. Emphasis will be placed upon the conceptualization and articulation of their own views.
A seminar format will be used, and assessment can be based on practice and/or written research.
Prerequisite: Completion of 69 credits and permission of the instructor.

IAT 484-3 Special Topics in Technology in Art and Design
A specific set of debates or practices alive and relevant to the professional interactive design world will be selected to form the basis of this course.
Prerequisite: Completion of 69 credits and permission of the instructor.

IAT 485-3 Special Topics in Interactive Design
A specific set of debates or practices alive and relevant to the professional interactive design world will be selected to form the basis of this course.
Prerequisite: Completion of 69 credits and permission of the instructor.

IAT 486-487-3 Directed Studies
Independent reading and research topics selected in consultation with individual members of the SIAT faculty.
Prerequisite: Completion of 69 credits.
No more than 6 credits of directed studies may be taken, and permission of the instructor and School is required.

IAT 490-6 Honors Project Proposal
Preparation for Honors Thesis Project including literature review, ethics approval (if necessary), and presentation of work in progress at end of the semester.
Prerequisite: Students accepted into Honors Program only.

IAT 491-6 Honors Project
Intensive work related to a particular topic in the field of Interactive Arts and Technology. Involves an extensive individual project under direct supervision of at least two committee members (at least one of whom is a SIAT faculty member) who will provide guidance and critical feedback as necessary.
Prerequisite: Successful completion of IAT 490.

IAT 800-3 Foundations of Computational Art and Design
Aims at a robust understanding of models for art and design and representations of these models as symbol systems. It meets these aims through a set of case studies that demonstrate how computational thinking can affect professional and research outcomes. Its outcomes are preparedness for further relevant study and skill developing in using computers to support research and professional work in art and design. (Seminar)

IAT 801-3 Research Methods and Strategies
Maps key methods and strategies of building reliable knowledge across diverse specializations within the graduate program. It is meant not so much to build specific expertise in a given set of techniques as to recognize issues underlying most all research and to appraise critically methods of observation, test and organization of findings. The course provides a common basis for discussion and criticism of research. The goal is a broad reading literacy across a spectrum of research, an essential step to knit collaboration and scholarly community. (Seminar)
IAT 810-3 New Media
Theory, history and current research in the field of new media. Its methods are the interweaving of design, social/cultural, learning and aesthetic theories. Historical views of the field are provided through an analysis of the histories of technology, moments of media emergence, social and cultural movements, design and aesthetics. Outcomes are exploration, analysis and development of applied methods in order to better understand, design, create and assess new media and future "newer media" developments. (seminar)

IAT 811-3 Computational Poetics
Provides students the opportunity to engage in critical creative thinking and practice in the discovery of the emergent everyday principles and concepts that enable one to describe, analyze, evaluate and design interactive multi-mediated experience. The structure of the course will centre on art in the age of information, virtuality, compositional design and practice. (seminar)

IAT 812-3 Communication, Learning and Collaboration
Addresses what it means to know something, how people gain and use knowledge and complex skills, how to determine what an individual knows, how humans learn how humans solve complex problems, how knowledge is created within a social and group context, and how to model human capabilities and performance. It selects and studies theoretical perspectives that inform the design of computer-based mediated environments, products and experiences. (seminar)

IAT 813-3 Artificial Intelligence in Computational Art and Design
Working through the set of motivating examples from domains such as combinatorial auction, strategy games, bioinformatics, social interaction and knowledge sharing, this course provides insights on artificial intelligence methods in knowledge representation, reasoning and problem solving, machine learning and inter-workings of complex AI system. The topics are presented in a comparative manner to clearly highlight advantages and disadvantages of each method. Students are recommended to have completed prior coursework in artificial intelligence. (seminar)

IAT 814-3 Knowledge, Visualization and Communication
Provides a cognitive and computational framework for understanding and designing graphical and visual representations. Investigates several psychological and computational models of diagram processing, and explore diverse interactive graphical systems. (seminar)

IAT 830-3 Learning Design and Media
Students will gain an understanding of instructional design as an evolving set of theories and practices based on learning research. They will develop detailed knowledge of design strategies for interactive learning media and will be able to explain how they relate to cognitive theories of learning. As an overarching goal, students will develop the knowledge and skills to conduct basic research projects relating to the design of learning media. (seminar)

IAT 831-3 Encoding Media Practice
Studies conceptual, aesthetic, and computational issues and techniques involved in the encoding of interactive media objects. It includes study of theoretical and poietical backgrounds in computer-human interaction (Bush, Dinkla, De Landa, Groz, Deleuze, Manovich, Murray, Laske, Hamman, Ascott, Penny, Kahn), basic tenets of programming for the arts (media representations, practical machine perception, algorithmic processes, database strategies, display techniques), and practical exercises in programming interactive computer art that may include interactive cinema, audio and narrative. (seminar)

IAT 832-3 Exploring Interactivity
Analyses, designs and prototypes more effective and more appropriate products and systems to support interactivity. This course will examine these issues through an iterative modeling process. (seminar)

IAT 833-3 Embodiment and Electronic Performance
Combines theoretical and practical explorations of physicality and live performance in technologically mediated environments. It offers an introduction to phenomenology as a methodology for analyzing and elaborating new physical and technological hybrids. Students devise a performance experiment, while simultaneously exploring critical discourses around embodiment, virtuality, gender, and communication. This course is designated as a research methods course. (seminar)

IAT 840-3 Models of Networked Practice
Examines several social frameworks for describing mutual activity in work and learning particularly in computer supported networked environments. The frameworks are used to describe, analyze and design the tools and approaches for new communities of practice. This course is designated as a research methods course. (seminar)

IAT 842-3 Theory and Design of Games
Games have become a major part of our culture, rivaling the popularity of movies. Drawing on a wide variety of examples and disciplines, this course examines theories and techniques for the analysis of existing games, and the design of new ones. It studies game design, and will provide students with the conceptual and technical tools necessary to critique and design games of all kinds. (seminar)

IAT 844-3 Spatial Computing
Covers the concepts, algorithms and design principles underlying modern 3D computer animation and visualization from a user interface perspective. Research topics include 3D user interface constructs; information, data and knowledge visualization; 3D graphics and animation; spatial perception; and virtual and immersive environments. (seminar)

IAT 845-3 Methods for Research into Technological Systems
Key models of research into technological systems are analysed and compared. Together, they frame diverse methodologies for art, social science, business, engineering and information technology. Focus will vary by instructor and disciplinary combination being examined. In contrast to the Research Methods and Strategies Course, this offering considers specialized, discipline specific research tools taken in combination. These may be qualitative, quantitative, laboratory-based, field based (as in survey research), actively experimental or based on secondary analysis of archival data. This course is designated as a research methods course. (seminar)

IAT 861-0 Practicum I
IAT 862-0 Practicum II
IAT 871-3 Directed Readings I
IAT 872-3 Directed Readings II
IAT 873-3 Directed Readings III
IAT 881-3 Special Topics I
IAT 882-3 Special Topics II
IAT 883-3 Special Topics III
IAT 884-3 Special Topics IV
IAT 885-3 Special Topics V
IAT 886-3 Special Topics VI
IAT 887-3 Special Topics VII
IAT 888-3 Special Topics VIII

INTD 305-1 Design: The Need for Community
Theory, history and practice of community formation, beginning with pastoral and ethnic communities of history and concluding with on-line communities. We consider geopolitical formations, utopian groups and “communities of mind” as found on the Internet.

INTD 306-1 Digital Interactive Community Operation
Examines how the general characteristics found in traditional community are maintained and transformed in the structure of virtual communities. In this respect, the goal is to identify what is common and unique in comparing the traditional and the virtual. Because of their central dependence upon technology, online communities often vary in consistent ways from their geo-political ancestors; yet, sociologically they may fulfill many of the same needs.

INTD 307-1 Digital Interactive Community Practicum
Students will work in a team with 2 or 3 others to design and implement a prototype virtual community. The goal will be to show the application of some of the principles that have been covered in INTD 305 and 306, including concepts such as social capital, identity, trust, regulation and individual freedom. You will be responsible for self-selecting teams, and choosing a purpose and platform for your community. You will then construct virtual on-line communities using software tools and computer networks. Additionally, you will oversee their operation in daily use.

INTD 310-1 Emerging Technologies and Planning
Gives students an overview of emerging project management methods and develops the skills necessary to negotiate and complete the planning and design phases of a technology based project.

INTD 311-1 Emerging Technologies for Implementation
Students apply the principles of design and configuration management, track and manage a budget, and complete the implementation phase of a technology-based project.
INTD 312-1 Project Control and Acceptance
Students will finalize the completion phase of a technology-based project. This will include applying corrective actions, QA and testing, and product acceptance.

INTD 401-1 Integration Project I: Project Planning
Focuses on the project-management aspects of the integration project-team building, organization, planning, and project definition. Students will work with others to outline a workable project structure, generate and evaluate innovative project ideas, select the strongest alternative, and produce a detailed project plan.

INTD 402-1 Integration Project I: Project Definition
Focuses on research and refinement of ideas leading to a substantive project concept. Working in teams, students will identify their audience, assess market opportunities, assess technical feasibility, generate user scenarios, refine ideas, and formulate a warehouse project concept.

INTD 403-1 Integration I: Product Design Development
The design development of a specific project concept. Working in teams, students will storyboard a revised user scenario, develop the design details, evaluate the concept, develop a narrative presentation, and solicit feedback from their prospective audience to help assess the viability of their work.

INTD 404-1 Integration 2: Feasibility Assessment
Re-evaluating the current design of the concept developed in INTD 403, 404, 405 with special consideration of the project management aspects necessary to complete the project by term end-organization, planning, milestones, critical dates, and resource allocation.

INTD 405-1 Integration Project 2: Prototyping Development and production of an integrated prototype, which clearly identifies and demonstrates the features and operation of both the hardware and software components of the product concept.

INTD 406-1 Integration 2: Field Trials and Refinement
Students will develop a strategy for field testing and product evaluation, run the field trials, evaluate the feedback, and implement feasible product improvement and/or revise product specification and details for a second generation prototype.

INTD 600-1 Research Methods: Problem Formulation
The course outlines the research enterprise. It introduces concepts and methods by which research is structured, understood and conducted. Key concepts include levels of predictive power offered by different kinds of research, relationships between question and methodology, the structure of models and issues of validity and causation.

INTD 601-1 Research Methods: Research Methodologies and Tools
The course has the dual purposes of introducing students to key methodologies used by researchers in the graduate program and providing hands-on experience with several basic research tools.

INTD 602-1 Research Methods: Anatomy of a Research Area
The course is a case study of a broad research area. Its goals are to show relationships between question and method and how results are used both within a line of inquiry and by other researchers working in the area.

INTD 603-1 Graduate Seminar
This is a weekly seminar featuring guest, faculty or graduate students presenting overviews of their current research. The goal of these presentations for graduate students is to help them analyze on-going research as a basis for formulating their own graduate program and thesis questions. By the conclusion of this seminar, graduate students should have a first draft of their program of study and a developed research (thesis) question.

INTD 604-1 Graduate Seminar
Graduate students attend a weekly research discussion with visiting and faculty researchers. The goal is to get students to generalize their critical abilities to diverse research beyond one’s own ‘home’ specialty. Outcomes of this work are increased cross-disciplinary connections for framing research questions and proposals, and a better basis to engage teach research efforts. By the conclusion of this module, students should be able to provide cogent, reasoned critiques of research from varied disciplinary specialties.

INTD 691-1 Directed Studies
INTD 692-1 Directed Studies

International Studies INTS Faculty of Arts and Social Sciences
INTS 220-3 Introduction to International Economics
Introduces students to the basics of international economics. Topics are drawn from both international: the gains from trade, the consequences to impediments to trade and factor mobility; and from international macroeconomics: the basic Mundell-Fleming framework; understanding the role of international organizations like the IMF, World Bank and BIS, and a case study of the European Union and its common currency. Prerequisite: ECON 103 and ECON 105.

INTS 320-3 Selected Problems in the International Economy
Introduces students to selected problems in the international economy. Topics are drawn from both international trade and international macroeconomics. Agricultural subsidies, tariffs and quotas, the Multifiber Agreement, the evolution of the world’s airline industries, and the “brain drain” are of interest. Macroeconomics topics include the theory and evidence associated with currency crises, economic integration including understanding the NAFTA, the EU and German reunification and, more speculatively, the potential for Korean unification. Why economic growth is successful in some countries and not others will round out the topics. Prerequisite: INTS 220.

INTS 490-4 Honors Seminar
Intended for the research and preparation of materials for the honors graduating essay. Admission is by permission of the instructor and the School. Students must complete this course before taking INTS 499. Open only to students who have been accepted into the honors program.

INTS 499-5 Honors Essay
In addition to regular meetings with their supervisors, students will be required to submit a major paper on a topic to be selected in consultation with the School. Prerequisite: INTS 490. Admission is by permission of the instructor and the School. Open only to students who have been accepted into the honors program.

Italian ITAL Faculty of Arts and Social Sciences

Sciences Department of French
ITAL 100-3 Introductory Italian I
This course continues the work of ITAL 100. Considerable emphasis will be placed on oral and written fluency and reading facility.

ITAL 101-3 Introductory Italian II
This course continues the work of ITAL 100. Considerable emphasis will be placed on oral and reading facility as well as basic writing skills. Prerequisite: ITAL 100.

ITAL 200-3 Intermediate Italian I
An intermediate Italian course continuing the work of ITAL 101. In addition to consolidation of oral practice, grammar, reading and composition skills, a cultural component is included as well as selected readings from Italian authors. Prerequisite: ITAL 101.

ITAL 201-3 Intermediate Italian II
ITAL 201 continues the work of ITAL 200. Oral and written competence in Italian are extended through grammar review, oral practice, cultural studies, selected readings from Italian authors and multimedia activities. Prerequisite: ITAL 200.

ITAL 300-3 Advanced Italian: Language and Culture
Will continue the work of the 200-level courses with emphasis on the cultural aspects of Italian life. How does one live in Italy today? What are the cultural differences between the various regions? Fluency in language use, both oral and written, will be enhanced. Prerequisite: Ital 201 or permission of Instructor.

Japanese JAPN Faculty of Arts and Social Sciences
Language Training Institute
JAPN 100-3 Introduction to Japanese I
A comprehensive introduction to the Japanese language including the three writing systems. Prerequisite: students with any prior knowledge or experience in Japanese beyond the level of this course may not register in this course. Students with some previous knowledge of Japanese should consult with the instructor for course placement.

JAPN 101-3 Introduction to Japanese II
Continuation of JAPN 100. Prerequisite: JAPN 100 or permission of the department.

JAPN 200-3 Advanced Beginners’ Japanese I
Continuation of JAPN 101. Prerequisite: JAPN 101 or permission of the department.

JAPN 201-3 Advanced Beginners’ Japanese II
Continuation of JAPN 200. Prerequisite: JAPN 200 or permission of the department.

Kinesiology KIN Faculty of Applied Sciences
KIN 105-3 Fundamentals of Human Structure and Function
Basic anatomy and physiology of the skeletal, muscular, nervous, endocrine, cardio-respiratory, urinary, digestive, immune, and reproductive systems (distance education). Kinesiology majors and honors students may not receive credit for KIN 105. Recommended: grade 11 biology, chemistry and physics.

KIN 110-3 Human Nutrition: Current Issues
An introduction to the principles of human nutrition with an emphasis on topics of current interest. The material is presented in a Canadian context to focus on nutrition practices and problems in this country.
Students will gain an understanding of factors affecting food selection and the role of nutrition in maintaining good health. Students will develop the ability to discriminate between reliable and unreliable information on the subject of food and nutrition.

KIN 111-3 Food and Food Safety

This course includes basic information on food, the safety of the food supply and current issues around the production, storage and distribution of food. Students will gain an understanding of basic food components, the physical foundations of food science, and the elements of food processing and preservation. Food-borne disease, biotechnology, irradiation of food, contaminants and additives in food, Canadian food labelling and advertising regulations, and food consumption trends will be examined. Nutritional biochemistry concepts will be interfaced with practical questions of food choice and eating practices. Recommended: grade 11 chemistry.

KIN 140-3 Contemporary Health Issues

Explores health from a holistic perspective, in which health is viewed as physical, psychological, and social well-being. Considers genetics, environment, personal health behaviors (such as diet, exercise, stress management, and drug use), socioeconomic status, health care delivery systems, and aging with the intention to improve students’ abilities to evaluate health information.

KIN 142-3 Introduction to Kinesiology

Basic procedures for the assessment of the status and performance of the individual according to the principles of anthropology, functional anatomy, biomechanics, exercise physiology, and motor learning. Recommended: grade 11 biology, chemistry and physics.

KIN 143-3 Exercise Management

Introduces the student to exercise physiology. Focuses on personal exercise prescription to improve aerobic capacity, muscular strength and endurance, and flexibility. Also discusses athletic conditioning, e.g. speed and power training. The effects of nutritional and environmental factors on exercise and the role of exercise in weight control and stress management are considered. Recommended: medical clearance from a personal physician.

KIN 180-3 Introduction to Ergonomics

Intended for students with a potential interest in ergonomics or human factors. The course surveys the design of work, the workplace environment, information systems, and consumer products. Topics include musculoskeletal disorders, manual materials handling, workplace design, organization of work, design of human/machine interfaces, environmental ergonomics, industrial design, and legal and social issues. Prerequisite: Grade 12 Biology or Physics, Grade 12 Math.

KIN 201-3 Biomechanics

This course will cover the application of basic mechanics to human movement. It will provide students with a basic understanding of how forces act on body segments and how movements are produced. The subject matter of this course is relevant to quantifying all forms of physical activity, from activities of daily living, physically challenged movement patterns, to elite athletic performance. It also has applications in medical settings, including rehabilitation and sports medicine. Prerequisite: MATH 151 or 154, MATH 152 or 155 (may be taken concurrently), PHYS 101 (or 120 or 125 or 140), KIN 142.

KIN 205-3 Introduction to Human Physiology

An introductory survey of human physiology with an emphasis on mechanisms of regulation and integration. Anatomy of structures will be detailed only when it is critical to a functional understanding. Although this is intended as a survey course, some topics will be covered in reasonable detail in order to give insight into mechanisms of function. Prerequisite: MBB 221 (or BICH 221), PHYS 101 (or 120 or 125 or 140), and PHYS 102 (or 121 or 126 or 141). Kinetics of body functions which have taken KIN 105 must also take KIN 205. For students taking both of these courses, credit will only be given for KIN 205.

KIN 207-3 Information Processing in Human Motor Systems

Studies the neural processing of human motor systems from psychological, physiological and computational approaches. Although a behavioral (information processing) approach to understanding voluntary goal-directed movement is stressed, research from a variety of distinct areas is integrated in an attempt to provide a coherent picture of our understanding of human motor systems. Prerequisite: KIN 142 or permission of instructor.

KIN 208-3 Introduction to Physiological Systems

An introduction to anatomy and physiological function of the major human systems, from a biomedical engineering perspective. Normally only available to students in the Biomedical Engineering Program. Prerequisite: CHEM 180.

KIN 212-3 Food and Society

This course deals with the cultural, social, agricultural and economic factors which influence food selection and nutrition. Students will explore traditional diets of various ethnic groups, and diet modification as immigrants adjust to life in a new country or to an urban setting. The course will also examine domestic and global food security, hunger in the developing and developed world, and sustainable methods of meeting the increasing world food demand. Prerequisite: KIN 110.

KIN 241-3 Sports Injuries — Prevention and Rehabilitation

Includes delineation of the role of the sports therapist and will study the structural and functional characteristics of the body with regard to the prevention of injury in sport. A first aid approach to athletic injuries will be developed with practical experience in routine treatments. Prerequisite: KIN 142.

KIN 301-3 Biomechanics Laboratory

A laboratory course on the quantitative biomechanical evaluation of human movement. Students will learn analysis techniques for quantifying kinematics and kinetics of body segments in athletes, non-athletes, and populations, and special populations during activities such as walking and jumping. Experiments will look at the nature of muscular force generation, and the mechanical impedance properties of the musculoskeletal system, as well as patterns of muscle activation, using surface EMG. Prerequisite: PHYS 102 (or 121 or 126 or 141), PHYS 130 (or 131 or 141), KIN 201.

KIN 303-3 Kinanthropometry

A study of human size, shape, proportion, composition and gross function related to basic concepts of growth, exercise, performance and nutrition. Prerequisite: KIN 105 or 142, and STAT 201 or an equivalent statistics course.

KIN 304-3 Inquiry and Measurement in Kinesiology

This course covers the evaluation of measurement quality, test construction and assessment, and computer techniques for data capture and signal processing relevant to issues in Kinesiology. Prerequisite statistical knowledge will be put into practice with assignments and hypostatic research designs, modeling and hypothesis testing in Kinesiology. Prerequisite: KIN 142, 201, 205, 207, and STAT 201.

KIN 305-3 Human Physiology I

Deals with the physiology and pathophysiology of the cardiovascular, respiratory, and renal systems in detail. Prerequisite: KIN 201, 205, CHEM 281 (or 150 and 155), PHYS 102 (or 121 or 126 or 141), MATH 155 (or 152). Students other than kinesiology majors require KIN 205 or BISC 305 plus permission of the instructor.

KIN 306-3 Human Physiology II (Principles of Physiological Regulation)

Examines the regulation of body functions with an emphasis on the endocrine, gastrointestinal and neuronal systems. The course focuses on integration of physiological mechanisms at the cellular and organ levels. Examples of abnormal human physiology are used to illustrate important principles. Prerequisite: KIN 201, 205, 207, CHEM 281 (or 150 and 155), PHYS 102 (or 121 or 126 or 141), MATH 155 (or 152). Students other than kinesiology majors require KIN 205 or BISC 305 plus permission of the instructor.

KIN 308-3 Experiments and Models in Physiology

A laboratory course in the measurement, analysis and computer modeling of human physiological systems from a biomedical engineering perspective. Laboratory topics include muscle electromyography, thermoregulation, human locomotion, electrocardiology, and respiratory modeling. Prerequisite: KIN 208. Recommended: MATLAB Experience.

KIN 310-3 Exercise/Work Physiology

The study of human physiological responses and adaptations to acute and chronic exercise/work. Cardiorespiratory, cellular and metabolic adaptations will be studied and discussed in detail. Prerequisite: KIN 205. Recommended: KIN 201 and 207.

KIN 311-3 Applied Human Nutrition

The principles of nutritional biochemistry are applied to nutrition in life cycle: pregnancy, lactation, infancy, childhood, adolescence and aging. The second part of the course deals with common disease conditions where nutrition plays an important role in prevention or treatment or both. The course is presented in the Canadian context featuring sources of help on Canadian practice, standards and regulations. Prerequisite: KIN 105 or 205 and 110. Students with credit for KIN 220 may not take KIN 311 for further credit.

KIN 312-3 Nutrition for Fitness and Sport

This course examines the theory and application of nutrition for fitness and sport. Students will study issues around dietary practices commonly promoted for performance enhancement, including mechanisms, effectiveness, risks and regulations. Students will learn skills for critical evaluation of nutrition research and nutrition claims, and will employ these in several small group projects investigating specific nutrition issues and products. Prerequisite: KIN 105 (or 205), and 110.

KIN 325-3 Basic Human Anatomy

For students interested in physical education, health professions and liberal arts. Brief discussions on applied anatomy, aging, common dysfunctions and diseases enable students to appreciate the relationship between structure and function. Prerequisite: KIN 142 and either KIN 105 (with a grade of C or higher) or KIN 205. Available only through correspondence, this course will not be counted as an upper level optional course for a major in kinesiology. Students with credit for KIN 326 may not take KIN 325 for further credit.

KIN 326-4 Functional Anatomy

For students in the Biomedical Engineering Program. A laboratory course in the measurement, analysis and computer modeling of human physiological systems from a biomedical engineering perspective. Laboratory topics include muscle electromyography, thermoregulation, human locomotion, electrocardiology, and respiratory modeling. Prerequisite: KIN 208. Recommended: MATLAB Experience.

Course Catalogue – Kinesiology KIN 409

Graduate courses are numbered 500-999

Simon Fraser University 2005 - 2006

COURSES
dimensional organization of the human body. Participation in all labs is required. Prerequisite: KIN 142, 201, 205 and at least 60 hours of undergraduate course credit. Students with credit for KIN 325 may not take KIN 326 for further credit.

KIN 336-3 Histology
Light and electron microscopic study of mammalian tissues and organs with emphasis on human systems. Prerequisite: KIN 325 or KIN 326 or BISC 316.

KIN 340-3 Active Health: Behavior and Promotion
This course examines the relationships among health, physical activity, and other health associated behaviors. Background information is provided concerning the influence of fitness on various disease states as well as the epidemiology of health and exercise behavior. The course examines the theories and models of health behavior in the context of intervention and promotion strategies. Prerequisite: KIN 105, 140, 143; or KIN 205. Recommended: 60 credit hours.

KIN 342-3 Active Health
An extension of KIN 143, Exercise Management, this course parallels the on-campus course KIN 343. This course is designed for students completing the Health and Fitness Certificate and/or a Kinesiology minor. The goal of the course is to provide students with an opportunity to apply selected principles of exercise leadership, assess individual fitness needs, design programs and monitor effects of prescribed exercise. This course is available only through distance education. Prerequisite: KIN 105 (or 205), 142 and 143. Kinesiology majors and honors students may not receive credit for KIN 342.

KIN 343-3 Active Health: Assessment and Programming
An extension of KIN 143, Exercise Management, designed to provide students with an opportunity to appreciate principles of exercise leadership, assess individual fitness needs, design programs and monitor effects of prescribed exercise. The course includes a 34 hour practicum. Prerequisite: KIN 142, 143 and 205; STAT 201 or an equivalent statistics course. Students with credit for KIN 342 may not take KIN 343 for further credit.

KIN 351-0 Practicum I
The first semester of work experience in the Kinesiology Co-operative Education Program. Prerequisite: Students must complete Bridging Online (visit www.sfu.ca/coop/bridging for further details) at least two semesters before their anticipated co-op placement. Students must then apply to the Kinesiology Co-op Program by the first week of the semester preceding the work semester. Normally, students will have a minimum of 45 credit hours by the end of the semester of application, KIN 142. KIN 143 plus at least one other kinesiology course and have a minimum GPA of 2.50. Work terms are graded as Pass/Fail (P/F).

KIN 352-0 Practicum II
The second semester of work experience in the Kinesiology Co-operative Education Program. Prerequisite: KIN 351. Work terms are graded as Pass/Fail (P/F).

KIN 367-3 Psychology of Motor Skill Acquisition
An examination of phases of skill acquisition, transfer of training, training principles, retention of motor skills, and the influence of motivation, personality and social factors on the acquisition of skill. Prerequisite: KIN 207.

KIN 375-3 Human Growth and Development
The fundamentals of physiological growth and development from conception to maturity. Topics included form a strong foundation for those interested in designing appropriate activity programs for children of all ages. Prerequisite: KIN 105 or 205, and 142.

KIN 380-3 Occupational Biomechanics
This course will teach the principles of biomechanical analysis and their application in the workplace. Topics will include techniques for measurement and analysis of movement; analysis of forces and accelerations in three dimensions; work and power; simple biomechanical and biodynamic models; standards for lifting and carrying, their application and limitations. Prerequisite: KIN 201, 205 and 326 which may be taken concurrently.

KIN 381-3 Psychology of Work
The application of psychological principles and methods to the study of human performance at work. A systems approach will be taken to study the interactions among the individual worker, his/her task, groups of workers, and the management structure of the organization. Prerequisite: PSYC 210 or both of KIN 207 and STAT 201. Corequisite: STAT 201 may be taken concurrently.

KIN 382-3 Physical Hazards in the Workplace
The focus of this course will be the study of the physical effects on the health, safety and performance of the worker. Physical problems associated with noise, vibration, lighting, radiation, dust and ventilation will be examined together with methods of recognition, treatment, protection and prevention. Prerequisite: KIN 142, 201, 205, PHYS 130 or (131 or 141).

KIN 383-3 Human-Machine and Human-Computer Interaction
Human information processing and motor control factors are considered as factors relevant to effective, usable human-machine interfaces. A user-centred approach deals with task analysis, context of use, information processing demands, the interface, and the design, assessment and usability of tools, machines and computers. Prerequisite: KIN 201 and 207.

KIN 402-3 Mechanical Behavior of Tissues
An extension of KIN 321, designed to provide students with an understanding of how tissues-structure-function relations in health and disease, from a biomechanical perspective. Topics include the effect of disease (and aging) on tissue properties, the mechanics and prevention of tissue injury, and the design of implants and prostheses. While the focus will primarily be on analysis of the musculoskeletal system at the tissue and whole-body levels, we will also consider aspects of the cardiovascular and respiratory systems. Prerequisite: KIN 201.

KIN 407-3 Human Physiology Laboratory
Experiments dealing with the nervous, muscular, cardiovascular, respiratory, and renal systems are covered. Prerequisite: PHYS 130 (or 131 or 141), KIN 305 and 306, one of which must already have been completed and the other can be taken concurrently.

KIN 412-3 Molecular and Cellular Cardiology
This course entails a detailed analysis of the molecular and cellular basis of cardiac function. The material will be derived from myriad disciplines including: anatomy (histology and ultrastructure), biomechanics, physiology, electrophysiology, biochemistry and molecular biology. A particular emphasis will be placed on the mechanisms by which the heart responds to stress, such as ischemia and exercise. Prerequisite: KIN 305.

KIN 415-3 Neural Control of Movement
An introduction to the control of the human musculoskeletal system examined from the perspective of neural control. Mechanisms of individual muscles, single joints spanned by multiple muscles and multi-joint limb segments are discussed in the context of physical interaction with the environment. Prerequisite: KIN 201 and 306.

KIN 420-3 Selected Topics in Kinesiology I
Selected topics in areas not currently offered as formal courses within the undergraduate course offerings in the School of Kinesiology. The topics in this course will vary from semester to semester, depending on faculty availability and student interest. Prerequisite: to be announced in the Course Timetable and Exam Schedule.

KIN 421-3 Selected Topics in Kinesiology II
Selected topics in areas not currently offered as formal courses within the undergraduate course offerings in the School of Kinesiology. The topics in this course will vary from semester to semester, depending on faculty availability and student interest. Prerequisite: to be announced.

KIN 422-3 Selected Topics in Kinesiology III
Selected topics in areas not currently offered as formal courses within the undergraduate course offerings in the School of Kinesiology. The topics in this course will vary from semester to semester, depending on faculty availability and student interest. Prerequisite: to be announced in the Course Timetable and Exam Schedule.

KIN 426-3 Neuromuscular Anatomy
This course explores human neuromuscular anatomy using a lecture format supplemented by course readings, an anatomy atlas and tutorials which are presented in an interactive fashion via the Macintosh Computer Laboratory on campus. A strong grounding will be given in neuroanatomy with additional emphasis on the limb musculature and its innervation. Prerequisite: KIN 325 or KIN 326 or PSYC 280.

KIN 430-3 Human Energy Metabolism
Pathways of energy flow in animals and man, and the relationship of biological energy transduction to the needs of the whole animal. Quantitative aspects of bioenergetics and adaptation to changes in energy supply and demand. Measuring techniques applied to adaptations of muscle activity and variations in food intake. Prerequisite: KIN 306 or 310 or MBB 321 (or BICH 321).

KIN 431-3 Environmental Carcinogenesis
An introduction to core concepts in the field of environmental carcinogenesis. Emphasis will be on the complex interactions of lifestyle factors, carcinogen exposure, genetic susceptibility and dietary habits as determinants of cancer risk. Class work will include discussions of new techniques to monitor exposure to environmental carcinogens and of regulatory aspects of governmental agencies towards carcinogenic agents, as well as approaches being used by such agencies in risk assessment. Prerequisite: MBB 221 and at least 60 credit hours.

KIN 442-3 Biomedical Systems
Concepts and tools of systems analysis will be introduced. Since these involve a philosophy of problem-solving rather than a catalogue of techniques, they will be applied to a number of very different problems in biomedicine and kinesiology.
KIN 411-3 Activity-Generated Musculoskeletal Disorders
This is a kinesiological approach to understanding the causes and prevention of musculoskeletal disorders caused by activity (work and sport). Particular attention will be paid to injuries to the back, neck, hand and arm. Prerequisite: KIN 201 and 326.

KIN 484-3 Altitude and Aerospace Physiology
The theme of this course is human physiology in environments of decreased atmospheric pressure, high G-force, and weightlessness. The course will deal with acute and chronic adaptations to these environments as well as life support systems and countermeasures developed to expand the envelope of human performance. Developments of breathing apparatus and G-suits for high performance aircraft will be examined as they relate to solving the physiological problems of exposure to these environments. Effects of short and extended periods of weightlessness on cardiovascular, cerebrovascular, musculo-skeletal, neural, hormonal and vestibular systems will be explored. Prerequisite: KIN 305, 306. Recommended: KIN 407.

KIN 485-4 Human Factors in the Underwater Environment
The physiological effects of pressure on the human body and interface with machine, underwater are considered. Topics include the history of diving, decompression theory, decompression disorders, pulmonary function, underwater work, underwater breathing apparatus, narcosis, saturation diving, high pressure nervous syndrome, and atmospheric diving suits. Prerequisite: KIN 305, 306, MATH 155 (or 152).

KIN 486-3 Human Factors in Industrial Design
The objective of the course is to learn the rudiments of design layout. In an industrial context, a well designed human-machine system must have more than just good display and control components. The essence of industrial design is to arrange system components so as to minimize production inefficiencies and quality control and safety compromises. Industrial examples will be presented to illustrate how human factors input can improve the production process and help to control some of the extreme hazards that arise in industrial environments. Prerequisite: KIN 380 and 383.

KIN 488-3 Ergonomics Laboratory
A project based laboratory course that applies theoretical knowledge to industrial situations. Instruction will be provided in proposal development, evaluation techniques, and report writing. Students will complete projects in human-machine interaction, occupational ergonomics, and industrial design. Prerequisite: KIN 380, plus at least four of the following: KIN 380, 381, 382, 383, 481, 442, 486 and CMNS 354.

KIN 496-3 Directed Study I
Directed reading and literature research on topics selected in consultation with the supervising instructor. This course may not be repeated for additional credit. A short proposal of the project, approved by the course supervisor, must be submitted for approval to the chair of the undergraduate program committee by the end of the first week of classes of the semester. Prerequisite: Permission from the chair of the undergraduate program committee. Usually, upper level standing with at least 75 semester hours in the kinesiology program will be required. Honors students may count only one of either KIN 496 or KIN 498 towards their 27 upper division Kinesiology elective credits.

KIN 497-3 Directed Study II
Direct study and research selected in consultation with the supervising instructor. A thesis based on research previously proposed in KIN 497. Formal approval of the research topic is given by obtaining a minimum grade of B in KIN 497. Regulations regarding the locale of the work, supervision and other arrangements, follow those for KIN 497. The written thesis should be submitted to the chair of the undergraduate program committee by the last day of exams of the semester. The thesis will also be presented orally as a seminar in an open forum at the end of the semester. Prerequisite: KIN 497. Only students in the honors program may register for KIN 497. A student may register for one other course concurrently with KIN 499 with permission from the faculty supervisor for KIN 499.

KIN 801-3 Seminar on Research in Kinesiology
Required of all graduate students in the Kinesiology. Students will gain perspective on how their research fits into the overall spectrum of departmental research. Presentations will be given by faculty and students, to be followed by seminar discussions. Students will be encouraged to discuss their technical solutions and research methodology.

KIN 802-3 Statistical Applications in Kinesiology
A lecture-lab structured course, with 1 lecture/week and numerous non-scheduled lab assignments. Mini-exams are held every three weeks to monitor students’ progress and assist students in keeping up with course materials. It will review fundamentals of descriptive statistics and hypothesis-testing. The remainder of the course will concentrate on analysis of variance and co-variance and an overview of correlation and regression. Students with credit for this course when taught as KIN 808 may not take KIN 801 for additional credit.

KIN 804-3 Project
Required for MSc (Coursework) students only. The course provides an opportunity for concentrated research and writing leading to a formal report for graduation credit.
research in a focused area with a faculty supervisor resulting in a research paper or experimental report.

KIN 805-3 Directed Studies
An opportunity to develop with a faculty supervisor considerable depth of knowledge and expertise in a focused area of study. Normally, KIN 805-3 may not be taken concurrently with KIN 806-3 or KIN 807-3 and may not be taken for credit by MSc (Coursework) students.

KIN 806-3 Special Topics
Special topics in areas not currently covered within the graduate program offerings. The course may be offered as a lecture or a seminar course.

KIN 807-3 Special Topics
Special topics in areas not currently covered within the graduate program offerings. The course may be offered as a lecture or a seminar course.

KIN 808-3 Special Topics
Special topics in areas not currently covered within the graduate program offerings. The course may be offered as a lecture or a seminar course.

KIN 810-3 Integrative Muscle Physiology
Recent developments in the application of molecular biology, biochemistry and cell biology to study muscle function during exercise. Topics will include muscle-specific gene expression, energy metabolism and its regulation, biochemical plasticity of muscle, hypertrophy and signal transduction.

KIN 812-3 Molecular and Cellular Cardiology
This course involves biochemical and biophysical analyses of cardiac function. Topics for discussion include excitation, contraction, E-C coupling and the regulation of pH. Prerequisite: Introductory biochemistry and biophysics.

KIN 821-3 Environmental and Exercise Physiology
Review course covering aspects of cardiovascular and respiratory physiology and/or discussion of environmental physiological topics such as thermoregulation.

KIN 825-3 Motor Learning and Control
Selected aspects of research and theory in the behavioural neurosciences. The focus will be on delineating the problems of developing viable theories of motor learning and action, and on seeking solutions to the problems. The course also includes sections on information processing and co-ordination of complex movement.

KIN 826-3 Motor Control: a Behavioral Perspective
The study of selected aspects of research in motor behavior. The focus will be on delineating the problems of developing viable theories of motor learning and action, and on seeking solutions to the problems. Prerequisite: KIN 467, or equivalent.

KIN 835-3 Neuromuscular Disorders
Provides a broad understanding to the student as to the way nervous system disease is believed to occur, some of the mechanisms behind these processes, the ways that are used to study these mechanisms and the ability to think about these processes as expressed in a critique of a research paper. It will include discussions of ALS, Alzheimer’s disease, stroke and myasthenia gravis among others. Students with credit for this course when taught as KIN 806 may not take KIN 835 for additional credit.

KIN 840-3 Human Biomechanics
Review the theoretical basis and tools of biomechanics and to examine how biomechanics research can contribute to our understanding of the cause, prevention and treatment of disease and injury and how biomechanics relates to neural control of movement. Topics will include static equilibrium, equations of motion, stability, inverse and forward dynamics, vibration and impact, mechanical properties of tissues, muscle models, feedback and feedforward control, impedance control and internal dynamics models.

KIN 850-3 Control Systems in Health and Disease
Biomolecular interactions exert or initiate substantive control thereby integrating cellular and physiological function. Further, these interactions frequently lead to altered control systems or responses of these systems in various disease states. Topics may include mechanisms of hormone action, cellular transport and signaling, immunoregulation, nutrition and metabolic control.

KIN 851-3 Recent Adv Experimental Carcinogenesis
This class will integrate current knowledge on the process of carcinogenesis in tissues in which cancer commonly occurs in North America. Discussions will focus on new techniques being developed to identify individuals at risk for cancer and new approaches being used to intervene to prevent development of the disease. Prerequisite: KIN 431.

KIN 861-3 Neuroscience
Topics include the physiology of waking, cerebral and cerebellar cortical physiology, the generation of repetitive neural discharges, as well as hormonal control of neuron behaviour. The emphasis will be a broad introduction to neuroscience, as well as some neuroscience research methods and applications.

KIN 865-3 Neural Control of Movement
The course covers the peripheral nervous system including reflexes and spinal cord organization in detail. This prepares the student with a thorough understanding of general functioning of the nervous system. In addition, the course covers the neurophysiology of the cerebellum, motor cortex, basal ganglia, vestibular system and other related structures involved in central control of movement. Laboratory demonstrations are part of the course.

KIN 870-3 Modeling of Physiological Systems
Introduction to the basic principles of mathematical modeling of physiological systems and mathematical techniques that are commonly used in modeling. The course will provide students with an opportunity to learn and apply some of these techniques and to develop an appreciation for the utility of mathematical models, as well as the potential pitfalls.

KIN 880-3 Internal Biomechanics
To relate the laws of mechanics to the function and structure of tissues and systems of the human body. Emphasis will be in relation to internal events occurring in normal and abnormal human states. Prerequisite: KIN 402.

KIN 885-3 Seminar on Human-Machine Systems
A study of the principles involved in integrating human capabilities into complex machine systems.

KIN 890-3 Engineering Aspects of Human Function
The application of engineering principles to the study of normal and abnormal human function.

KIN 898-6 MSc Thesis
KIN 899-6 PhD Thesis

Labor Studies LBST
Faculty of Arts and Social Sciences
Department of History
LBST 101-3 Introducing Labour Studies
Introduction to key concepts and signaling for understanding the character and organization of work in contemporary society. The discussion of such issues as how our society decides who works, what the work will be, and under what conditions people work, will be situated in the context of current debates, trends and issues.

LBST 301-3 Labour Movements: Contemporary Issues and Images
This course will give students a comprehensive understanding of the contemporary structure, issues, and perceptions of labor unions and other forms of working-class organization. It will focus on external and internal problems that the labor movement faces, such as labor law and state policy, employer strategies, bureaucratic racism and sexism. The treatment of labor in the media and popular culture will provide an understanding of how labor is viewed in society, how labor views itself, and how working-class culture informs and is informed by the larger culture. Recommended: LBST 101.

Language LANG
Faculty of Arts and Social Sciences
Department of Linguistics
Language Training Institute
LANG 102-3 Introductory Ukrainian—I—SILP
The acquisition of introductory language skills in a world language not separately designated in the Calendar. The specific course number and credit hours assigned will vary with the language studied as well as the focus and method of instruction.

LANG 104-3 Introductory Filipino—I—SILP
The acquisition of introductory language skills in a world language not separately designated in the Calendar. The specific course number and credit hours assigned will vary with the language studied as well as the focus and method of instruction.

LANG 106-3 Introductory Punjabi—I—SILP
The acquisition of introductory language skills in a world language not separately designated in the Calendar. The specific course number and credit hours assigned will vary with the language studied as well as the focus and method of instruction.

LANG 110-3 Modern Greek Language for Beginners
The acquisition of introductory language skills in a world language not separately designated in the Calendar. The specific course number and credit hours assigned will vary with the language studied as well as the focus and method of instruction.

LANG 118-3 Introductory Farsi I
The acquisition of introductory language skills in a world language not separately designated in the Calendar. The specific course number and credit hours assigned will vary with the language studied as well as the focus and method of instruction.

LANG 132-2 Introductory Fijian I
The acquisition of introductory language skills in a world language not separately designated in the Calendar. The specific course number and credit hours assigned will vary with the language studied as well as the focus and method of instruction.

LANG 152-3 Introductory Ukrainian II—SILP
The acquisition of basic proficiency in language skills in a world language not separately designated in the Calendar. The specific course number and credit hours assigned will vary with the language studied as well as the focus and method of instruction. Prerequisite: LANG 100-149 in the same language, or placement on the basis of prior knowledge. Please inquire at the Language Training Institute for information on placement.

LANG 154-3 Introductory Filipino II—SILP
The acquisition of basic proficiency in language skills in a world language not separately designated in the Calendar. The specific course number and credit
hours assigned will vary with the language studied as well as the focus and method of instruction. Prerequisite: LANG 100-149 in the same language, or placement on the basis of prior knowledge. Please inquire at the Language Training Institute for information on placement.

LANG 156-3 Introductory Punjabi II
The acquisition of basic proficiency in language skills in a world language not separately designated in the Calendar. The specific course number and credit hours assigned will vary with the language studied as well as the focus and method of instruction. Prerequisite: LANG 100-149 in the same language, or placement on the basis of prior knowledge. Please inquire at the Language Training Institute for information on placement.

LANG 160-3 Introductory Greek II, Beginners
The acquisition of basic proficiency in language skills in a world language not separately designated in the Calendar. The specific course number and credit hours assigned will vary with the language studied as well as the focus and method of instruction. Prerequisite: LANG 100-149 in the same language, or placement on the basis of prior knowledge. Please inquire at the Language Training Institute for information on placement.

LANG 168-3 Introductory Farsi II
The acquisition of basic proficiency in language skills in a world language not separately designated in the Calendar. The specific course number and credit hours assigned will vary with the language studied as well as the focus and method of instruction. Prerequisite: LANG 100-149 in the same language, or placement on the basis of prior knowledge. Please inquire at the Language Training Institute for information on placement.

LANG 202-3 Intermediate Ukrainian I—SILP
The development of fluent language skills in a world language not separately designated in the Calendar. The specific course number and credit hours assigned will vary with the language studied as well as the focus and method of instruction. Prerequisite: LANG 150-199 in the same language, or placement on the basis of prior knowledge. Please inquire at the Language Training Institute for information on placement.

LANG 204-3 Intermediate Filipino I—SILP
The development of fluent language skills in a world language not separately designated in the Calendar. The specific course number and credit hours assigned will vary with the language studied as well as the focus and method of instruction. Prerequisite: LANG 150-199 in the same language, or placement on the basis of prior knowledge. Please inquire at the Language Training Institute for information on placement.

LANG 210-3 Modern Greek Language, Intermediate
The development of fluent language skills in a world language not separately designated in the Calendar. The specific course number and credit hours assigned will vary with the language studied as well as the focus and method of instruction. Prerequisite: LANG 150-199 in the same language, or placement on the basis of prior knowledge. Please inquire at the Language Training Institute for information on placement.

LANG 223-3 Intermediate Language Study I—Latin III
The development of fluent language skills in a world language not separately designated in the Calendar. The specific course number and credit hours assigned will vary with the language studied as well as the focus and method of instruction. Prerequisite: LANG 150-199 in the same language, or placement on the basis of prior knowledge. Please inquire at the Language Training Institute for information on placement.

Latin American Studies LAS
Faculty of Arts and Social Sciences

LAS 100-3 Images of Latin America
A multimedia introduction to Latin American Studies. Film screenings and media analysis sessions will complement a series of introductory lectures on various relevant contemporary issues such as ethnicity and race, gender, the ecology, and current social and political events. This is a course of general interest open to all students.

LAS 140-3 Cultural Heritage of Latin America
A multi-disciplinary introduction to contemporary Latin American culture through the examination of pre-Columbian, Iberian, and African civilizations. Students with credit for SPAN 140 may not take LAS 140 for further credit.

LAS 200-3 Introduction to Latin American Issues
A multidisciplinary introduction to contemporary Latin America. The course is organized in three modules: people and the land, the human condition, and political alternatives, each of which will be examined from the varying perspectives of history, geography, politics, the arts, etc. Prerequisite: LAS 100 or 140 or permission of the instructor.

LAS 300-3 Latin American Literature
A study in English of significant contributions to Latin American literature.

LAS 309-3 Special Topics: Regional Studies
An interdisciplinary study of a specific Latin American region, e.g. Central America, the Andes, the Southern Cone, Amazonia, etc. One region will be examined from a multidisciplinary perspective: history, literature, politics, economy, etc. (seminar) Prerequisite: LAS 200.

LAS 312-3 Special Topics: Latin American Cultural Topics
A cross-disciplinary focus on specific elements of contemporary Latin American culture. Topics such as indigenous, Afro-Latin culture, religion, literature, and folklore will be studied, (lecture/tutorial) Prerequisite: LAS 140 or 200.

LAS 320-3 Canada and Latin America
An analysis of Canada’s multi-faceted relations with Latin America. Topics include: the history of Canada’s foreign policy towards Latin America, trade and investment, official development assistance and the role of non-governmental organizations, human rights, immigration and refugee policy, and participation in multilateral institutions (e.g. the OAS). Prerequisite: LAS 200 or permission of instructor.

LAS 323-3 Women in Latin American Literature and Society
This course will examine how women writers and artists from Latin America have represented themselves as gendered social, historical and philosophical subjects. Prerequisite: LAS 200.

LAS 330-3 Prehistory of Latin America
Intensive study of the prehistoric cultures of Latin America. Emphasis will be on the development of the civilizations of prehistoric Mexico and Peru. Prerequisite: ARCH 273 or LAS 140. LAS 330 is identical to ARCH 330, and students cannot receive credit for both courses.

LAS 337-4 Government and Politics: Selected Latin American Nations I
An examination of the political systems of selected Latin American nations, including an analysis of political culture, political economy, political institutions, interest groups and both formal and informal political processes. Prerequisite: POL 231 or LAS 200. Students taking LAS 337 may not take POL 337 for further credit.

LAS 337-4 Government and Politics: Selected Latin American Nations II
An examination of the political systems of selected Latin American nations, including an analysis of political culture, political economy, political institutions, interest groups and both formal and informal political processes. Prerequisite: POL 231 or LAS 200. Students taking LAS 337 may not take POL 337 for further credit.

LAS 380-0 Practicum I
First semester of work experience in the Latin American Studies Co-operative Education Program. Prerequisite: 30 semester hours with a minimum CGPA of 2.75, including recommended courses LAS 100, 140, 200 and SPAN 102. Students should apply to the Faculty of Arts co-op co-ordinator by the end of the second week of the semester preceding the employment semester.

LAS 390-0 Practicum II
Second semester of work experience in the Latin American Studies Co-operative Education Program. Prerequisite: completion of LAS 380 and 45 semester hours with a minimum CGPA of 2.75. Students should apply to the Faculty of Arts co-op co-ordinator by the end of the second week of the semester preceding the employment semester.
LAS 392-4 Latin America
An introduction to the peoples and institutions of Latin America in historical and contemporary perspective, emphasizing macro-level patterns of similarity and diversity. Prerequisite: one of SA 201, 263, 286, 293, or LAS 200. Students with credit for SA 391 or 392 may not take this course for further credit.

LAS 402-5 Field Study
A multidisciplinary study of a selected country or region. This course will normally be part of the LAS Field School in Latin America, and will be conducted in co-operation with local lecturers from the host country. Prerequisite: LAS 200.

LAS 403-4 Special Topics: Latin American Economy and Society
This seminar will expose students to primary data on migration policies, and political reactions to the global political issues arising from aspects of globalization, emphasizing macro-level patterns of similarity and diversity. Students will be given the opportunity to research and present on a variety of topics related to business, foreign aid, and economic, and ideological perspectives as well as US and Latin America, the Pacific Rim. Historical, economic, and ideological perspectives as well as topics related to business, foreign aid, and immigration will be emphasized. (lecture/seminar) Prerequisite: LAS 200 or permission of the department.

LAS 405-3 Special Topics: Field School II
This course will be part of the LAS field school in Latin America. A topic will be chosen which can be examined profitably from a multidisciplinary perspective. Prerequisite: LAS 200 or permission of the department.

LAS 410-4 Andean History and Culture
An interdisciplinary study of the history and culture of the Andean region from the Inka period to the present. The first half of the course examines the Andean response to colonialism and the nation-state; the second half focuses on issues and problems that Andean peoples face today. Prerequisite: LAS 140 and 200 or permission of the instructor.

LAS 422-4 Theories and Practices of Development
A geographic study of ‘development’ and ‘underdevelopment’ with particular references to selected regions. (lecture/seminar) Prerequisite: at least 60 credit hours including GEOG 111, 221, and 241. LAS 422 is identical to GEOG 422 and students cannot take both courses for credit.

LAS 440-4 Special Topics: Latin American International Relations
A multidisciplinary study of bilateral issues between Latin America and a specific country or region, e.g. US and Latin America, the Pacific Rim. Historical, economic, and ideological perspectives as well as topics related to business, foreign aid, and immigration will be emphasized. (lecture/tutorial) Prerequisite: LAS 200. This course is identical to LAS 311, LAS 411, POL 340, POL 440 and students cannot take more than one of these courses for credit.

LAS 450-4 Globalization and Regional Politics in Latin America
This seminar, designed for advanced undergraduate and graduate students, will discuss contemporary political issues arising from aspects of globalization, such as free trade agreements, international migration policies, and political reactions to the global media within particular regions of the world. The seminar will expose students to primary data research, and involve the development of a course project in line with their particular interests. Prerequisite: Completion of 30 undergraduate credit hours. Courses in international economics or international relations or international political economy or Latin American political economy are highly recommended. This course is identical to POL 450 and students cannot take both courses for credit.

LAS 480-0 Practicum III
Third semester of work experience in the Latin American Studies Co-operative Education Program. Prerequisite: completion of LAS 390 and 60 semester hours with a minimum CGPA of 2.75. Students should apply to the Faculty of Arts co-op co-ordinator by the end of the second week of the semester preceding the employment semester.

LAS 483-4 Political Economy of Latin American Development
Introduces students to the various theoretical approaches which have been used since the 1950’s to understand the political economy of Latin American development. It deals with some of the classic theories of modernization, dependency, world systems, and modes of production analysis. The last unit of the course is devoted to the most contemporary issues of Latin American development, such as the agrarian question, women and development, problems of urbanization and the informal sector. (lecture/seminar) Prerequisite: LAS 200 or permission of the instructor. This course is identical to LAS 318 and 428, POL 383 and 483, SA 328, 428 and 483, and students cannot take more than one of these courses for credit.

LAS 490-0 Practicum IV
Fourth semester of work experience in the Latin American Studies Co-operative Education Program. Prerequisite: completion of LAS 480 and 75 semester hours with a minimum CGPA of 2.75. Students should apply to the Faculty of Arts co-op co-ordinator by the end of the second week of the semester preceding the employment semester.

LAS 498-5 Independent Study Project
Independent reading and research on a cross-disciplinary project under the supervision of a faculty member. A term paper will be required. Prerequisite: 50 credit hours, including LAS 200, and permission of the department.

LAS 800-5 Approaches to Latin American Studies
An annual interdisciplinary seminar taught by selected Latin American studies faculty examining core theoretical and substantive themes in Latin America.

LAS 815-5 Latin American Economy and Society
A geographic study of ‘development’ and ‘underdevelopment’ with particular references to selected regions.

LAS 825-5 Latin American History and Culture
A multidisciplinary study of bilateral issues between Latin America and a specific country or region, e.g. US and Latin America, the Pacific Rim. Historical, economic, and ideological perspectives as well as topics related to business, foreign aid, and immigration will be emphasized. (lecture/seminar) Prerequisite: LAS 200. This course is identical to LAS 311, LAS 411, POL 340, POL 440 and students cannot take more than one of these courses for credit.

LAS 835-5 Latin American Politics and the State
Directed readings in a selected field of study under the direction of a single faculty member. An annotated bibliography and a term paper is required.

LAS 898-6 MA Thesis

Liberal Arts LBRL

Faculty of Arts and Social Sciences

LBRL 101-0 Practicum I
First semester of work experience in the Liberal Arts Co-operative Education Program. Prerequisite: at least 30 semester hours with a minimum CGPA of 3.0, including ENGL 099 and PHIL 001. Students should apply to the Faculty of Arts co-op co-ordinator by the end of the third week of the semester preceding the employment semester.

LBRL 201-0 Practicum II
Second semester of work experience in the Liberal Arts Co-operative Education Program. Prerequisite: successful completion of Liberal Arts 101 and at least 45 semester hours with a minimum CGPA of 3.0. Students should apply to the Faculty of Arts co-op co-ordinator by the end of the third week of the semester preceding the employment semester.

LBRL 301-0 Practicum III
Third semester of work experience in the Liberal Arts Co-operative Education Program. Prerequisite: successful completion of LBRL 201 and at least 60 semester hours with a minimum CGPA of 3.0. Students should apply to the Faculty of Arts co-op co-ordinator by the end of the third week of the semester preceding the employment semester.

LBRL 401-0 Practicum IV
Fourth semester of work experience in the Liberal Arts Co-operative Education Program. Prerequisite: successful completion of Liberal Arts 301 and at least 75 semester hours with a minimum CGPA of 3.0. Students should apply to the Faculty of Arts co-op co-ordinator by the end of the third week of the semester preceding the employment semester.

LBRL 402-0 Practicum V
Optional fifth semester of work experience in the Liberal Arts Co-operative Education Program. Prerequisite: successful completion of LBRL 401 and at least 90 semester hours with a minimum CGPA of 3.0. Students should apply to the Faculty of Arts co-op co-ordinators by the end of the third week of the semester preceding the employment semester.

LBRL 750-0 Practicum I
First semester of work experience in the Co-operative Education Program.

LBRL 751-0 Practicum II
Second semester of work experience in the Co-operative Education Program.

LBRL 752-0 Practicum III
Third (optional) semester of work experience in the Co-operative Education Program.

Liberal Studies LS

Faculty of Arts and Social Sciences

LS 800-5 Thinking About Human Passion
The first of two core courses that constitute an extended examination of the tension between reason and passion in human experience. This course will emphasize close reading and discussion of works, drawn from different cultures and epochs, that reflect on human passion.

LS 801-5 The Capacity of Limits of Reason
The second of two core courses that constitute an extended examination of the tension between reason and passion in human experience. This course will examine writings by some who have insisted on the indispensability of reasoning as a guide to action and the source of truth, as well as writings by some of those who on various grounds have cast doubt on this faith in human reason.

LS 810-5 Self and Society
This course will examine some aspects of the relationship between selfhood, as idea and experience, and social organization. Approaches to the topic will vary, but may involve scientific, social scientific, philosophical and aesthetic perspectives.

LS 811-5 Tradition and Modernity
This course will examine ways in which ideas of tradition and traditional societies conflict with forces of modernization and ideas of modernity.

LS 812-5 Science and Human Values
This course will deal with issues surrounding the nature of the scientific attitude, the growth of scientific knowledge and the impact of scientific and technological change. Specific attention will be given to the value implications of science and technology in
relation to other forms of human understanding and experience.

LS 813-5 Religious and Secular World Views
This course will deal with the conflicts and continuities of secular and religious approaches to such fundamental issues as the origins of the universe and of the human species, human virtue, and human destiny.

LS 814-5 Liberty and Authority
This course will examine the tension between liberty and authority as expressed in some of the following: political and judicial ideas and systems; conflicting economic ideologies; personal relationships.

LS 815-5 Organizing Social Realities: Gender, Class, Race, Nation
This course will examine how distinctions among people create pattern and conflict, by studying some of the fundamental organizing concepts of society which both unite and divide people.

LS 819-5 Selected Topics
This course provides an opportunity for the occasional offering of a seminar course appropriate to the program but on a topic outside the regular courses.

LS 829-5 Directed Study
This course provides an opportunity for individual study on a topic of the student's choice, under the guidance of one or more faculty. Arrangements for this course must be approved by the graduate chair in advance of registration.

LS 898-5 Liberal Studies Graduating Seminar
The final seminar for those students in the graduate liberal studies program pursuing the course option MA. The seminar will revisit the themes raised in the two opening core seminars (LS 800 and 801).

LS 990-2.5 Extended Essays (Completion)
Extended Essays (Completion)

LS 991-2.5 MA Project (Completion)
MA Project (Completion)

LS 998-5 MA Extended Essays
Students will present two of their essays for formal examination in order to satisfy the Simon Fraser University requirements for a master's degree.

LS 999-5 MA Project
This course is for students choosing to satisfy part of the requirements for an MA in liberal studies by presenting a project for formal examination.

Linguistics LING
Faculty of Arts and Social Sciences

LING 100-3 Communication and Language
A non-theoretical approach to the study of language using examples from a variety of languages.

LING 110-3 The Wonder of Words
Study of the structure of words, the change of meaning of words, the change in form of words. Examples from English, French and other languages. A general interest course open to all students.

LING 130-3 Practical Phonetics
Practical training in the description of sounds used in language. Students in the First Nations Studies program should take LING 231 before LING 130.

LING 200-3 Introduction to Description of English Grammar
A practical overview of English grammar based on linguistic principles, for those desiring basic knowledge of language structure, grammatical categories and grammatical analysis. This course is particularly suited for students interested in the teaching of English as a second language.

LING 220-3 Introduction to Linguistics
An introduction to linguistic analysis. Students with credit for LING 240 may not take this course for further credit.

LING 221-3 Introduction to Phonology
The principles of phonological analysis. Prerequisite: LING 130, 220.

LING 222-3 Introduction to Syntax
The principles of syntactic analysis. Prerequisite: LING 220.

LING 231-3 Introduction to First Nations Language I
An introductory course in the structure of a native language of the Americas, including phonetics, vocabulary, word formation, and grammatical constructions. The course will be based on a designated language to be named each time it is taught, and will usually be chosen from the Northwest Coast area. Students who have taken LING 431 in semester 90-3 may not take this course for further credit. Recommended: students in the First Nations Studies program should take LING 231 before LING 130.

LING 232-3 Introduction to First Nations Language II
A continuation of the introductory course in a native language, including phonetics, vocabulary, word formation, and grammatical constructions. The course will be based on a designated language to be named each time it is taught, and will usually be chosen from the Northwest Coast area. Prerequisite: LING 231 in the same language. Students who have taken LING 432 in semester 91-1 may not take this course for further credit.

LING 241-3 Languages of the World
An examination of the linguistic structure of selected languages. Prerequisite: LING 220.

LING 260-3 Language, Culture and Society
An introduction to language in its social and cultural dimensions.

LING 310-6 Intensive Survey of Linguistic Analysis
An in-depth examination of core areas of linguistic analysis, including extensive practice with representative linguistic data from a variety of languages. This course may not be taken for credit toward a major, extended minor, minor or honors program in linguistics. Students with credit for LING 220 may not take LING 310 for further credit.

LING 321-3 Phonology
An overview of theoretical principles in phonology. Prerequisite: LING 221 or 310.

LING 322-3 Syntax
The study of sentence structure in language through a survey of constructions found in natural language data together with a consideration of syntactic theory. Prerequisite: LING 222 or 310.

LING 323-3 Morphology
Word structure in natural languages and its relationship to phonological and syntactic levels of grammar. Prerequisite: LING 221, 222; or 310.

LING 324-3 Semantics
Basic formal aspects of meaning (e.g. compositional semantics, truth conditional semantics and quantification in natural language) and how they are distinguished from pragmatic aspects of meaning (Lecture/Tutorial). Prerequisite: LING 222 or 310.

LING 330-3 Phonetics
A survey of methods of speech sound description and transcription. Prerequisite: LING 221 or 310.

LING 331-3 Description and Analysis of a First Nations Language I
An intermediate course in the structure of a native language of the Americas, including writing systems, texts and examination of the general linguistic properties of the language and the language family in which it is situated. The course will be based on a designated language to be named each time it is taught, and will usually be chosen from the Northwest Coast area. Prerequisite: LING 232 or equivalent credit in the same language.

LING 332-3 Description and Analysis of a First Nations Language II
A continuation of the intermediate course in a native language of the Americas, including writing systems, texts, and examination of the general linguistic properties of the language and the language family in which it is situated. The course will be based on a designated language to be named each time it is taught, and will usually be chosen from the Northwest Coast area. Prerequisite: LING 331 or equivalent credit in the same language.

LING 350-3 First Language Acquisition
Introduction to the study of language acquisition from the point of view of linguistic structure. Prerequisite: LING 130, 220; or LING 310. Students who have taken LING 250 may not take this course for further credit.

LING 360-3 Linguistics and Language Teaching
Theoretical and practical aspects of second language learning. Prerequisite: LING 130, 220; or 310.

LING 362-3 English as a Second Language: Theory
Application of linguistic principles to the teaching of English as a second language. Prerequisite: LING 130, 220; or 310.

LING 363-3 English as a Second Language: Practice
Implementation of linguistic principles in the teaching of English as a second language, including a practical experience with learners of English. Prerequisite: LING 360, 362. This course is graded on a pass/fail basis.

LING 370-0 Linguistics Practicum I
First semester of work experience in the Linguistics Co-operative Education Program. Prerequisite: successful completion of LING 370 and 45 credit hours with a minimum CGPA of 2.75.

LING 371-0 Linguistics Practicum II
Second semester of work experience in the Linguistics Co-operative Education Program. Prerequisite: successful completion of LING 370 and 45 credit hours with a minimum CGPA of 2.75.

LING 400-3 Formal Linguistics
Formal systems and their relation to linguistic methods and theory. Topics include the mathematical properties of natural languages, and rigorously defined frameworks for linguistic analysis and their formal properties. Prerequisite: LING 322. Recommended: PHIL 210

LING 401-3 Topics in Phonetics
Advanced training in speech sound description and analysis in the impressionistic and instrumental modes. Prerequisite: LING 330.

LING 403-3 Topics in Phonology
Detailed study of specific areas in phonological research, such as particular languages and particular theories (Lecture/Tutorial). Prerequisite: LING 321.

LING 405-3 Topics in Syntax
In-depth investigation of theoretical frameworks for syntactic description of natural languages. Prerequisite: LING 322.
LING 406-3 Topics in Semantics
Additional topics in formal semantics, such as intensionality, lambda abstraction, generalized quantifiers, dynamic semantics (Lecture). Prerequisite: LING 322, 324. Recommended: PHIL 210.

LING 407-3 Historical Linguistics
The development of languages and language families through time; genetic grouping, the comparative method, reconstruction, etymology, universals and language change. Prerequisite: LING 321, 322 and 323.

LING 408-3 Field Linguistics
The investigation and description of an unfamiliar language. Prerequisite: LING 221 and 222; or 310.

LING 409-3 Sociolinguistics
A systematic approach to the study of linguistic variation in different areal, social, and cultural settings. Prerequisite: LING 220 or 310. Recommended: LING 260.

LING 423-3 Topics in Morphology
Principles of morphological theory and a survey of current research on word structure. Prerequisite: LING 321, 322, 323.

LING 430-3 Native American Languages
Structural and historical characteristics of Native languages of America, with special emphasis on languages of the Northwest. Detailed examination of one language or language family. Prerequisite: 12 upper division linguistics credits. Recommended: LING 424 and 323.

LING 431-3 Language Structures I
Detailed examination of the structure of a selected language. Prerequisite: LING 221 and 222; or 310.

LING 432-3 Language Structures II
Detailed examination of the structure of a selected language. Prerequisite: LING 221 and 222; or 310.

LING 433-3 First Nations Language Mentoring I
Intended for advanced learners of a particular First Nations language. It will enable them to get advanced vocabulary and/or grammatical skills in the First Nations language through individualized practice with fluent speakers (usually elders) of that language. Enrollment in this course requires the prior approval of the Department of Linguistics and the local First Nations community. Students will be evaluated on the basis of the individualized goals and objects set at the beginning of the course. Prerequisite: LING 332 or permission of course supervisor. This course is graded on a pass/fail basis.

LING 434-3 First Nations Language Mentoring II
A follow up to LING 433. It will involve students, on an individualized basis, carrying out 39 hours of learning with a mentor who is a fluent speaker (usually First Nations elder) or a particular First Nations language. Prerequisite: LING 433 or permission of course supervisor. This course is graded on a pass/fail basis. Recommended: LING 431 and 432.

LING 435-3 Topics in First Nations Language II
Course content varies as required by First Nations language communities or learners. It will usually focus on having students gain insights into intermediate to advanced level topics on structural aspects of a particular First Nations language, with further emphasis on how those structural features of the languages can best be learned and taught in the classroom. Prerequisite: LING 220, 332 or permission of instructor. Recommended: LING 360, 431 and 432.

LING 441-3 Linguistic Universals and Typology
A survey of the main language types found in the world with reference to their structural properties; the categorization of language types as a consequence of linguistic universals. Prerequisite: Two of LING 321, 322 or 323. Recommended: LING 241.

LING 470-0 Linguistics Practicum III
Third semester of work experience in the Linguistics Co-operative Education Program. Prerequisite: successful completion of LING 371 and 60 credit hours with a minimum CGPA of 2.75.

LING 471-0 Linguistics Practicum IV
Fourth semester of work experience in the Linguistics Co-operative Education Program. Prerequisite: successful completion of LING 470 and 75 credit hours with a minimum CGPA of 2.75.

LING 480-3 Topics in Linguistics I
Investigation of a selected area of linguistic research. (Seminar) Pre-requisite: 12 credit hours of upper division linguistics courses.

LING 481-3 Topics in Linguistics II
Investigation of a selected area of linguistic research. (Seminar) Prerequisite: 12 credit hours of upper division linguistics courses. Note: may be taken without LING 480.

LING 480-3 Honors Essay
Topic of a specific nature to be agreed upon by the student and a particular faculty member. Prerequisite: a minimum of 35 hours of upper division linguistics courses counting toward the honors degree.

LING 800-4 Phonology
LING 801-4 Syntax
LING 802-4 Semantics
LING 803-4 Theory
LING 804-4 Field Methods
LING 805-4 Historical and Comparative Linguistics
LING 806-4 Sociolinguistics
LING 807-4 Computational Linguistics
LING 809-4 Morphology
LING 810-4 Topics in Linguistics I
LING 811-4 Topics in Linguistics II
LING 812-4 Topics in Linguistics III
LING 813-4 Topics in Linguistics IV
LING 820-4 Formal Linguistics
LING 821-4 Phonetics
LING 850-4 Psycholinguistic Aspects of Language Learning
LING 851-4 Research Techniques and Experimental Design
LING 855-4 Applied Linguistics I
LING 890-3 Graduate Seminar
LING 896-4 Directed Research
LING 897-4 Research Seminar
LING 896-6 MA Thesis
LING 899-6 PhD Thesis

Management and Systems Science
MSSC

Faculty of Science

MSSC 480-1 Undergraduate Seminar in Management and Systems Science
A seminar for students undertaking a major or an honors program in management and systems science. Prerequisite: completion of all required lower division courses and at least 15 upper division credits required in the program.

MSSC 481-1 Undergraduate Seminar in Management and Systems Science
A seminar for students undertaking a major or an honors program in management and systems science. Prerequisite: completion of all required lower division courses and at least 15 upper division credits required in the program.

Management and Technology
MTEC

Faculty of Business Administration

MTEC 310-1 E-HR: Strategic and Environmental Issues
Students are introduced to various human resource management functions. Emphasis is on linking human resources to a company's strategic objectives. Job analysis is defined and related to human resource planning. Human resource management systems are reviewed. Learning is organized around a simulated company experience.

MTEC 311-1 Tech Professionals: Recruitment, Compensation and Retention
Focuses on attracting and retaining skilled knowledge workers. Topics include the recruiting and e-curating process, competitive compensation and benefit strategies, and selection, including effective interviewing techniques. Learning is organized around a simulated company experience.

MTEC 312-1 Tech Professionals: E-learning/Development
Students examine important areas of training and e-learning, career planning and development, performance review and management, and how to sustain the employee relationship. All areas are vital to managing employees within the organization so that individuals, teams, and the organization flourish. Learning is organized around a simulated company experience.

MTEC 313-1 E-Business Strategy and Models
Focuses on e-business strategies in the Internet economy and how to identify the key determinants of business success. You will learn about the ten competitive landscape-changing properties of the Internet, the Internet value network, and Internet business models.

MTEC 314-1 Customer Relationship Management
Looks at e-customer relationship management (e-CRM) and how CRM relates to strategy and operations. You will learn the functions of customer service, tracking and managing CRM data, and international aspects of eCRM.

MTEC 315-1 On-line Marketing
Focuses on Internet marketing. You will apply a marketing strategy to an innovative product and demonstrate how you will target customers using technology.

MTEC 316-1 Competitive Intelligence: A Primer
MTEC 317-1 Competitive Intelligence in Action
MTEC 318-1 Introduction to Data Mining
MTEC 319-1 Venture Develop: Managing Emerging Tech
MTEC 320-1 Strategic Venture Planning
MTEC 321-1 New Venture Business Implementation
MTEC 322-1 E-Business Functions and Intermediaries
MTEC 323-1 High Tech Connectivity: E-Marketing
MTEC 324-1 Advanced Strategy in E-Business
MTEC 401-1 Science, Technology and Change
This introductory course outlines the field of management of technological innovation, examines the relationship between science and technology, and assesses the nature of technological lifecycles and technological change. The course focuses on understanding some of the key issues involved in managing technological innovation as well as framing students' thoughts around science, technology, and technological change. The content and applications are written for those who are, or plan to be,
entrepreneurs and managers as well as technology specialists.

MTEC 402-1 Models of Innovation
Examines technological innovation in the context of a dynamically changing environment. It outlines differing models used to describe the innovation process, types of innovation, and the dynamics associated with the adoption and diffusion of innovations.

MTEC 403-1 Managing Research and Development
Examines R&D at the level of the firm. It describes the variables of the structural nature used for managing R&D, how the flow of innovative ideas from outside the firm can be enhanced, and examines the role of R&D and product portfolios.

MTEC 404-1 Law Basics: The Groundwork
Business law will be a relevant part of your professional life once you have left SFU and have embarked on your careers. To help you gain competency in identifying legal issues, and working them out, this course presents interesting legal studies and real-life scenarios, and introduces some important legal principles. The assignments are relevant to real situations you may someday face. We will focus on contract law, the legal system and the application of principles governing contract and business law.

MTEC 405-1 E-Commerce and Business Law
MTEC 404 illustrated how business law will be relevant to your work experience. MTEC 405 introduces more substantive law relevant to technology. This course presents interesting legal studies and real fact scenarios. Whereas MTEC 404 provided an overview of some important legal principles, MTEC 405 delves deeper into the areas of business law and its applications to eCommerce, using real situations and informative readings for this purpose.

MTEC 406-1 Intellectual Property Law
MTEC 404 illustrated how business law is relevant to your professional future. MTEC 405 continues the process by introducing intellectual property laws (patents, copyright, trademarks and integrated circuit topographies) that are relevant to the new technology world by presenting interesting legal studies and real-life scenarios. We delve deeper into the areas of intellectual property law and its applications to eCommerce, using real situations and informative readings. The assignments are geared to be enjoyable and relevant. This course presents a range of IP legal scenarios and IP/business law principles.

MTEC 600-1 Services Management
This course introduces graduate students to the various services related business models, both B2C and B2B, that are established and evolving in the realm of e-Business. The issues of integration of web based services with traditional brick and mortar models are also explored.

MTEC 601-1 Technology and Supply Chain Management
This graduate course introduces students to the central ideas of supply chain management. The web enabled approach is emphasized and compared with traditional methods. Contemporary best practices are researched and discussed.

MTEC 602-1 Developing New Products
This course explores the strategic and operational aspects of new product development including critical success factors. It also provides a focus on the pre-development phase of product innovation.

MTEC 603-1 Branding
This course focuses on the ways that brands acquire and sustain value in the marketplace. Students study the meaning, uses, processes, and methodologies for creating effective and winning brands. The evolution of brand value strategies is also explored.

MTEC 604-1 Internet Advertising
The focus is on the issues, theories, tools, and practice of marketing communications in the Internet marketplace and the role of Internet advertising to businesses. Students will acquire the analytical skills that are needed to plan, design, implement and evaluate internet advertising campaigns.

MTEC 605-1 Management of High Tech Professionals
The course is focused on how to develop competitive advantages in e-business through leadership and the effective management of people. Topics examined include corporate culture, change management, learning organizations, and various human resource practices.

MTEC 606-1 Global Business in Technology Industries
The course is focused on key issues in conducting international business. Students study strategy formulation for international markets, as well as the important role of national culture in business. In addition, strategic alliances in technology companies are examined.

MTEC 607-1 Strategic Management of Innovation
This course reviews some fundamental concepts of strategy in the context of technological innovation, examines the role of competencies in technology development, and identifies and discusses the various components or dimensions that make up a technology strategy. Case studies are used to illustrate theory with application in the e-business context.

MTEC 608-1 High Tech Entrepreneurship
In today's age of rapid technological progress, ventures are being created daily to satisfy new business needs. The creation of new technology-based ventures is becoming a more popular career choice for science and technology professionals with entrepreneurial ambition. This is a fast-paced, hands-on course that takes the student through the key stages of new venture creation including researching the product opportunity, protecting the venture's intellectual property, planning the venture's seed and start-up stages, determining the financial needs and resources, developing the business plan and valuing the venture.

MTEC 609-1 E-Customer Relationship Management
The course is focused on the evolution of customer relationship management from mortar and brick establishments to the Web. Focus is on issues of e-loyalty and customer services, as well as current practices.

MTEC 610-1 The Social Context of E-Business
The human element on the Web is important. In this course focus is on the development of trust in online communities, how virtual teams operate successfully, and ethical issues that impact online interaction, with particular emphasis on e-business.

MTEC 611-1 Knowledge Management Tools/Technologies
This course investigates the various information systems and technologies used for implementing knowledge management practices within an organization. It describes a framework for analyzing these knowledge services (KSS). Industry examples of knowledge services are discussed in terms of infrastructure services, core services and packaged services.

MTEC 613-1 E-Business Strategy and Models
Effective strategy is central to e-business success. In this course, emphasis is on examination on various strategies and models as they apply in e-business.

Issues, strategic choices and challenges are highlighted related to e-business implementation.

MTEC 691– 699 Directed Studies
Variable credit hours: 1, 2, 3.

Marine Science MASC Faculty of Science

MASC 400-6 Directed Studies
A course of directed studies under the supervision of a member of faculty. The study will involve a research proposal approved by the supervisor in the field of interest of the student, and will be designed to take maximum advantage of the laboratory and/or field opportunities offered by the Bamfield Marine Sciences Centre.

MASC 401-3 Directed Studies in Marine Sciences
A course of directed studies under the supervision of a member of faculty. The study will involve a research project approved by the supervisor in the field of interest of the student, and will be designed to take maximum advantage of the laboratory and field opportunities offered by the Bamfield Marine Sciences Centre. Prerequisite: Offerings of the MASC courses may vary from summer to summer because instructors are drawn from different universities. For that reason, prerequisites may vary slightly. In general, upper division standing in biology is required, and admission is usually competitive. Students are encouraged to consult the brochure published each fall by the Bamfield Marine Sciences Centre for full and specific details. The brochure will be available from the Department of Biological Sciences.

MASC 410-6 Marine Invertebrate Zoology
A survey of the marine phyla, with emphasis on the benthic fauna in the vicinity of the Bamfield Marine Sciences Centre. The course includes lectures, laboratory periods, field collection, identification, and observation. Emphasis is placed on the study of living specimens in the laboratory and in the field. Prerequisite: Offerings of the MASC courses may vary from summer to summer because instructors are drawn from different universities. For that reason, prerequisites may vary slightly. In general, upper division standing in biology is required, and admission is usually competitive. Students are encouraged to consult the brochure published each fall by the Bamfield Marine Sciences Centre for full and specific details. The brochure will be available from the Department of Biological Sciences.

MASC 411-6 Comparative Embryology of Marine Invertebrates
A comprehensive study of development of marine invertebrates available at the Bamfield Marine Sciences Centre including all major phyla and most of the minor phyla. Lectures will cover gametogenesis, fertilization, regeneration, cell lineage, mosaic and regulated development, larval development and metamorphosis of the different groups. Laboratory work will include methods and techniques of obtaining and handling gametes, preparation and maintenance of larval cultures and observation of development up to metamorphosis if possible. Some selected and clearly defined classical experiments will be performed. Efforts will also be made to study various pelagic larvae. Prerequisite: Offerings of the MASC courses may vary from summer to summer because instructors are drawn from different universities. For that reason, prerequisites may vary slightly. In general, upper division standing in biology is required, and admission is usually competitive. Students are encouraged to consult the brochure published each fall by the Bamfield Marine Sciences Centre for full and specific details. The brochure will be available from the Department of Biological Sciences.

Graduate courses are numbered 500-999

Simon Fraser University 2005 - 2006
MASC 412-6 Biology of Fishes
Classification, physiology, ecology, behavior and zoogeography of fishes with particular emphasis on those in the marine environment of the British Columbia coast. Local collections from a variety of habitats will be used for experimental studies. Prerequisite: Offerings of the MASC courses may vary from summer to summer because instructors are drawn from different universities. For that reason, prerequisites may vary slightly. In general, upper division standing in biology is required, and admission is usually competitive. Students are encouraged to consult the brochure published each fall by the Bamfield Marine Sciences Centre for full and specific details. The brochure will be available from the Department of Biological Sciences.

MASC 437-3 Marine Population Ecology and Dynamics
An analytical approach to the study of marine ecology and marine populations. Intertidal and subtidal communities will be examined, with emphasis on the biota of the Barkley Sound region. Prerequisite: Offerings of the MASC courses may vary from summer to summer because instructors are drawn from different universities. For that reason, prerequisites may vary slightly. In general, upper division standing in biology is required, and admission is usually competitive. Students are encouraged to consult the brochure published each fall by the Bamfield Marine Sciences Centre for full and specific details. The brochure will be available from the Department of Biological Sciences.

MASC 440-6 Biology of Marine Birds
The interrelationship of birds and the marine environment. Lectures will emphasize the systematics and ecological relationships, behavior, life histories, movements and conservation of marine birds. Census techniques and methods of studying marine birds in the field will be stressed during field trips in the Barkley Sound region. Seabird identification, classification, morphology, plumages and molt will be examined in the laboratory. Prerequisite: Offerings of the MASC courses may vary from summer to summer because instructors are drawn from different universities. For that reason, prerequisites may vary slightly. In general, upper division standing in biology is required, and admission is usually competitive. Students are encouraged to consult the brochure published each fall by the Bamfield Marine Sciences Centre for full and specific details. The brochure will be available from the Department of Biological Sciences.

MASC 445-6 Biology of Marine Mammals
A survey course covering systematics and distribution of marine mammals, their sensory capabilities and physiology, with special emphasis on the cetacea. The course includes lectures, laboratory periods and numerous field trips in the Barkley Sound region. The course will involve an independent study. Prerequisite: Offerings of the MASC courses may vary from summer to summer because instructors are drawn from different universities. For that reason, prerequisites may vary slightly. In general, upper division standing in biology is required, and admission is usually competitive. Students are encouraged to consult the brochure published each fall by the Bamfield Marine Sciences Centre for full and specific details. The brochure will be available from the Department of Biological Sciences.

MASC 446-6 Comparative Ethology
A comparative study of marine animals (vertebrate and invertebrate) emphasizing behavioral description, underlying physiological mechanisms, the biological significance of behavior and behavioral evolution. The course will include independent laboratory and field studies. Prerequisite: Offerings of the MASC courses may vary from summer to summer because instructors are drawn from different universities. For that reason, prerequisites may vary slightly. In general, upper division standing in biology is required, and admission is usually competitive. Students are encouraged to consult the brochure published each fall by the Bamfield Marine Sciences Centre for full and specific details. The brochure will be available from the Department of Biological Sciences.

MASC 470—479 Special Topics in Marine Biology
Offered, as opportunities arise, by visiting scientists who are working at the Bamfield Marine Sciences Centre and are prepared to offer a course of either three or six weeks. Courses will be of a specialized nature. Variable credit hours: 3, 6. Prerequisite: will vary and will be announced in advance of the course offering.

MASC 480-3 Seminars and Papers in Marine Science
A series of weekly seminars covering current topics of interest in the Marine Sciences. Seminars will be presented by the Bamfield Marine Sciences Centre researchers, graduate students and visiting scientists as well as by the students themselves. Prerequisite: Offerings of the MASC courses may vary from summer to summer because instructors are drawn from different universities. For that reason, prerequisites may vary slightly. In general, upper division standing in biology is required, and admission is usually competitive. Students are encouraged to consult the brochure published each fall by the Bamfield Marine Sciences Centre for full and specific details. The brochure will be available from the Department of Biological Sciences.

MASC 500-3 Directed Studies
A graduate level course of directed studies under the supervision of a member of faculty. The study will involve a research project approved by the supervisor in the field of interest of the student, and will be designed to take maximum advantage of the laboratory and/or field opportunities offered by the Bamfield Marine Sciences Centre.

MASC 501—503-3 Special Topics
Courses offered, as opportunities arise, by distinguished scientists who are visiting the Bamfield Marine Sciences Centre and are prepared to offer a course extending over a three week period.

MASC 504—506-3 Special Topics
Courses offered, as opportunities arise, by distinguished scientists who are visiting the Bamfield Marine Sciences Centre and are prepared to offer a course extending over a six week period.

Mathematics MATH

Faculty of Science

MATH 100-3 Precalculus
Algebraic, exponential, logarithmic and trigonometric functions and their graphs. Applications. Prerequisite: BC principles of mathematics 11 (or equivalent) with a grade of at least B, or permission of the department or the non-credit course, basic algebra. Students entering Simon Fraser University directly from high school who take BC MATH 12 or equivalent, with a grade of at least B, may not take this course for credit at Simon Fraser University. Students may not count more than one of MATH 100 or 110 for credit. MATH 100 may not be counted towards the mathematics minor, major or honors degree requirements. Intended to be particularly accessible to students who are not specializing in mathematics. In addition to regularly scheduled lectures, students registered in each of these courses are encouraged to come to the workshops for assistance any time during posted working hours. At the workshop students will have the opportunity to meet with the co-ordinator, the teaching assistants and other students, and work together to understand mathematics in a friendly and helpful environment. Algebra Workshop MATH 100, 190, 232, MACM 201 - AQ 4135.

MATH 113-3 Euclidean Geometry
Graduate courses are numbered 500-999

MATH 151-3 Calculus I
Functions and graphs, conic sections, limits and continuity, derivatives, techniques and applications of differentiation, trigonometric functions, logarithms and exponentials, extrema, the mean value theorem and polar co-ordinates. Prerequisite: BC principles of mathematics 12 (or equivalent) with a grade of at least C, or MATH 100 with a grade of at least C-. Students with credit for either MATH 154 or 157 may not take MATH 151 for further credit. In addition to regularly scheduled lectures, students registered in these courses are encouraged to come to the workshops for assistance any time during posted working hours. At the workshop students will have the opportunity to meet with the co-ordinator, the teaching assistants and other students, and work together to understand mathematics in a friendly and helpful environment. Calculus Workshop MATH 151, 152, 251 - AO 4110.

MATH 152-3 Calculus II
Integrals, techniques and applications of integration, approximations, sequences and series, area and arc length in polar co-ordinates. Prerequisite: MATH 151 or 154. Students may also use MATH 157 with a grade of A or B. Students with credit for MATH 155 or 158 may not take MATH 152 for further credit. In addition to regularly scheduled lectures, students registered in these courses are encouraged to come to the workshops for assistance any time during posted working hours. At the workshop students will have the opportunity to meet with the co-ordinator, the teaching assistants and other students, and work together to understand mathematics in a friendly and helpful environment. Calculus Workshop MATH 151, 152, 251 - AO 4110.

MATH 154-3 Calculus I for the Biological Sciences
This course is designed for students specializing in the biological and medical sciences. Topics include: limits, growth rate and the derivative; logarithmic, exponential and trigonometric functions and their applications in population study; optimization and approximation methods. Prerequisite: BC principles of mathematics 12 (or equivalent) with a grade of at least B, or MATH 100 with a grade of at least C-. Students with credit for either MATH 151 or 157 may not take MATH 154 for further credit. Intended to be particularly accessible to students who are not specializing in mathematics. In addition to regularly scheduled lectures, students registered in these courses are encouraged to come to the workshops for assistance any time during posted working hours. At the workshop students will have the opportunity to meet with the co-ordinator, the teaching assistants and other students, and work together to understand mathematics in a friendly and helpful environment. Applied Calculus Workshop MATH 154, 155, 157, 158 - K 9503.

MATH 157-3 Calculus for the Social Sciences I
Designed for students specializing in business or the social sciences. Topics include: limits, growth rate and the derivative; logarithmic exponential and trigonometric functions and their application to business, economics, optimization and approximation methods; functions of several variables. Prerequisite: BC principles of mathematics 12 (or equivalent) with a grade of at least B; or MATH 100 with a grade of at least C-. Students with credit for either MATH 151 or 154 may not take MATH 157 for further credit. Intended to be particularly accessible to students who are not specialized in mathematics. In addition to regularly scheduled lectures, students registered in these courses are encouraged to come to the workshops for assistance any time during posted working hours. At the workshop students will have the opportunity to meet with the co-ordinator, the teaching assistants and other students, and work together to understand mathematics in a friendly and helpful environment. Applied Calculus Workshop MATH 154, 155, 157, 158 - K 9503.

MATH 158-3 Calculus for the Social Sciences II
Theory of integration and its applications: introduction to differential equations with emphasis on some special first-order equations and their applications to economics and social sciences; algebraic operations with matrices, systems of linear equations, determinants, introduction to linear programming. Prerequisite: MATH 151 or 154 or 157. Students with credit for MATH 152 or 155 may not take MATH 158 for further credit. Intended to be particularly accessible to students who are not specializing in mathematics. In addition to regularly scheduled lectures, students registered in these courses are encouraged to come to the workshops for assistance any time during posted working hours. At the workshop students will have the opportunity to meet with the co-ordinator, the teaching assistants and other students, and work together to understand mathematics in a friendly and helpful environment. Applied Calculus Workshop MATH 154, 155, 157, 158 - K 9503.

MATH 190-4 Principles of Mathematics for Teachers
Mathematical ideas involved in number systems and geometry in the elementary school curriculum. Whole number, fractional number, and rational number systems. Plane geometry, solid geometry, metric geometry, and non-metric geometry. Prerequisite: BC principles of mathematics 11 (or equivalent) with a grade of at least C or permission of the department or the non-credit course, basic algebra. This course may not be counted toward the Mathematics minor, major or honors degree requirements. Students who have taken, have received transfer credit for, or are currently taking MATH 151, 154 or 157 may not take MATH 190 for credit without permission from the Department of Mathematics. Intended to be particularly accessible to students who are not specializing in mathematics. In addition to regularly scheduled lectures, students registered in these courses are encouraged to come to the workshops for assistance any time during posted working hours. At the workshop students will have the opportunity to meet with the co-ordinator, the teaching assistants and other students, and work together to understand mathematics in a friendly and helpful environment. Applied Calculus Workshop MATH 154, 155, 157, 158 - K 9503.

MATH 210-3 Calculus for the Biological Sciences
This course is designed for students specializing in the biological and medical sciences. Topics include: limits, growth rate and the derivative; logarithmic, exponential and trigonometric functions and their application to business, economics, optimization and approximation methods; functions of several variables. Prerequisite: BC principles of mathematics 12 (or equivalent) with a grade of at least B; or MATH 100 with a grade of at least C-. Students with credit for either MATH 151 or 154 may not take MATH 157 for further credit. Intended to be particularly accessible to students who are not specialized in mathematics. In addition to regularly scheduled lectures, students registered in these courses are encouraged to come to the workshops for assistance any time during posted working hours. At the workshop students will have the opportunity to meet with the co-ordinator, the teaching assistants and other students, and work together to understand mathematics in a friendly and helpful environment. Calculus Workshop MATH 150, 152, 251 - AQ 4135.

MATH 242-3 Introduction to Analysis I
Mathematical induction, real sequences and series, continuity. Functions and their properties. Continuity and its consequences. The mean value theorem. The fundamental theorem of calculus. Series. Prerequisite: MATH 152 or 155.

MATH 251-3 Calculus III
Vectors, solid analytic geometry, differential calculus of several variables, multiple integrals, cylindrical and spherical coordinates, line integrals. Prerequisite: MATH 152 or 155; or MATH 158 with a grade of A or B. Recommended: It is recommended that MATH 232 be taken before or concurrently with MATH 251.

MATH 252-3 Vector Calculus
Vector functions of a single variable, space curves, scalar and vector fields, conservative fields, surface and volume integrals, and theorems of Gauss, Green and Stokes. Prerequisite: MATH 232 and 251. Students with credit for MATH 312 may not take MATH 252 for further credit.

MATH 254-3 Vector and Complex Analysis for Engineering Sciences
Combines a continuation of the study of vector calculus from MATH 251 with an introduction to functions of a complex variable. Vector functions of a single variable, space curves, scalar and vector fields, conservative fields, surface and volume integrals, and theorems of Gauss, Green and Stokes. Functions of a complex variable, differentiability, contour integrals, Cauchy’s theorem. Taylor and Laurent expansion.
method of residues, integral transform and conformal mapping. Prerequisite: MATH 232 and MATH 251. Students with credit for MATH 322 may not take this course for further credit.

MATH 291-2 Selected Topics in Mathematics
Topics will vary from semester to semester depending on faculty availability and student interest. Prerequisites will be specified according to the particular topic or topics offered.

MATH 292-3 Selected Topics in Mathematics
Topics will vary from semester to semester depending on faculty availability and student interest. Prerequisites will be specified according to the particular topic or topics offered.

MATH 308-3 Linear Optimization
Modeling and solving optimization problems involving linear functions - theory and applications. The simplex method. Duality theory and applications. Integer programming, elements of game theory. Prerequisite: MATH 232. Recommended: MACM 201. Intended to be particularly accessible to students who are not specializing in mathematics.

MATH 309-3 Continuous Optimization
Theoretical and computational methods for investigating the minimum of a function of several real variables with and without inequality constraints. Applications to operations research, model fitting, and economic theory. Prerequisite: MATH 232 and 251. Recommended: MATH 308.

MATH 310-3 Introduction to Ordinary Differential Equations
First-order differential equations, second- and higher-order linear equations, series solutions, introduction to Laplace transform, systems and numerical methods, applications in the physical, biological and social sciences. Prerequisite: MATH 152 or 155 (or MATH 158 with a grade of A or B) and MATH 232.

MATH 314-3 Boundary Value Problems
Separation of variables for the conduction equation, the wave equations and Laplace’s equation. Sturm–Liouville problems. Separation in polar co-ordinates, Laplace transforms. Prerequisite: MATH 252 (or 253) and 310.

MATH 320-3 Introduction to Analysis II
Sequences and series of functions, topology of sets in Euclidean space, introduction to metric spaces, functions of several variables. Prerequisite: MATH 242 and 251.

MATH 322-3 Complex Variables
Functions of a complex variable, differentiability, contour integrals, Cauchy’s theorem, Taylor and Laurent expansions, method of residues. Prerequisite: MATH 251. Students with credit for MATH 242 may not take MATH 322 for further credit.

MATH 332-3 Introduction to Applied Algebraic Systems
An introduction to groups, rings and fields with applications to cryptography, codes and counting techniques based on permutation groups. Prerequisite: MATH 232.

MATH 337-0 Job Practicum II
This is the second semester of work experience in a co-operative education program available to mathematics students. Prerequisite: MATH 336 and permission of the co-op co-ordinator; students must apply at least one semester in advance. This course will be graded on a pass/withdraw basis. A course fee is required.

MATH 339-3 Groups and Symmetry
Symmetries, groups, subgroups and generators, isomorphisms, dihedral groups, matrix groups, products, Cayley’s Theorem, Lagrange’s Theorem and Cauchy’s Theorem. Prerequisite: MATH 232.

MATH 342-3 Elementary Number Theory
Divisibility of primes, congruences, arithmetic functions and related topics. Prerequisite: any 200 level MATH or MACM course.

MATH 343-3 Applied Discrete Mathematics
Structures and algorithms, generating elementary combinatorial objects, counting (integer partitions, set partitions, Catalan families), backtracking algorithms, branch and bound, heuristic search algorithms. Prerequisite: MATH 232 (with a grade of at least B-). Recommended: knowledge of a programming language.

MATH 345-3 Introduction to Graph Theory
Fundamental concepts, trees and distances, matchings and factors, connectivity and paths, network flows, integral flows, Prerequisite: MATH 251 (with a grade of at least B). Prerequisite: MACM 201 (with a grade of at least B). Prerequisite: MACM 201 (with a grade of at least B).

MATH 380-3 History of Mathematics
An account of the history of mathematics from ancient times through the development of calculus and the origins of modern algebra in the 19th century. Emphasis will be on developments which shaped the mathematics studied in high school and the first two years of university. Prerequisite: MATH 151, 232 and one of 152 or 113. Students who have taken MATH 180 may not take MATH 380 for additional credit. Intended to be particularly accessible to students who are not specializing in mathematics.

MATH 398-3 Selected Topics in Mathematics
Topics in areas of mathematics not covered in the regular undergraduate curriculum of the department. Prerequisites will be specified according to the particular topic or topics offered.

MATH 418-3 Partial Differential Equations
First-order linear equations, the method of characteristics. Harmonic functions, the maximum principle, Green’s functions. The heat equation. Distributions and transforms. Higher dimensional eigenvalue problems. An introduction to nonlinear equations. Burgers’ equation and shock waves. Prerequisite: MATH 314 (or PHYS 384) or permission of the department. Recommended: MATH 242 and 320.

MATH 419-3 Linear Analysis
Convergence in Euclidean spaces, Fourier series and their convergence, Legendre polynomials, Hermite and Laguerre polynomials. Prerequisite: MATH 232, 320 or permission of the instructor. Recommended: MATH 252 and 320.

MATH 424-3 Applications of Complex Analysis
Conformal mapping, application to boundary value problems, Schwarz–Christoffel transformation, integral formulas, analytic continuation, argument principle. Prerequisite: MATH 322.

MATH 425-3 Real Analysis
Metric spaces, normed vector spaces, measure and integration, an introduction to functional analysis. Prerequisite: MATH 320.

MATH 426-0 Job Practicum IV
This is the fourth semester of work experience in a co-operative education program available to mathematics students. Prerequisite: MATH 436 and permission of the co-op co-ordinator; students must apply at least one semester in advance. This course will be graded on a pass/withdraw basis. A course fee is required.

MATH 430-3 Combinatorial Theory

MATH 445-3 Graph Theory
Graph colouring. Hamiltonian graphs, planar graphs, random graphs, Ramsey theory, extremal problems, additional topics. Prerequisite: MATH 345. Recommended: MATH 343.

MATH 447-4 Coding Theory
An introduction to the theory and practice of error-correcting codes. Topics will include finite fields, polynomial rings, linear and non-linear codes, BCH codes, convolutional codes, majority logic decoding, weight distribution of codes, and bounds on the size of codes. Prerequisite: MATH 232. Recommended: MATH 332.

MATH 461-3 Continuous Mathematical Models
Formula, analysis and numerical solution of continuous mathematical models. Applications may be selected from topics in physics, biology, engineering and economics. Prerequisite: MATH 314 and MATH 316. Students with credit for MATH 361 may not take MATH 461 for further credit.

MATH 462-3 Fluid Dynamics
Incompressible fluid flow phenomena: kinematics and equations of motion, viscous flow and boundary layer theory, potential flow, water waves. Aerodynamics. Prerequisite: MATH 314 or PHYS 384, MATH 322.

MATH 467-3 Dynamical Systems
Stability and bifurcation in vector fields and discrete maps. Centre manifold theory and applications of normal forms, introduction to chaos, Lyapunov exponents, and normal hyperbolicity. Prerequisite: MATH 310. Recommended: MATH 320.

MATH 470-3 Variational Calculus
Procedures of Euler, Lagrange and Hamilton. Extremum problems, stationary values of integrals. Canonical equations of motion, phase space, Lagrangian and Poisson brackets. Prerequisite: MATH 310 and either MATH 262 or PHYS 211. MATH 313 or PHYS 384 should precede or be taken concurrently.

MATH 486-0 Job Practicum V
This is an optional fifth semester of work experience in a co-operative education program available to mathematics and statistics students. Prerequisite: MATH 437 and permission of the co-op co-ordinator. Students must apply at least one semester in advance.
MATH 491-2 Honors Essay
Selected topics. Prerequisite: written permission of the department undergraduate studies committee.

MATH 492-4 Directed Studies
Independent reading or research in topics selected in consultation with the supervising instructor. Prerequisite: written permission of the department undergraduate studies committee.

MATH 493-4 Directed Studies
Independent reading or research in topics selected in consultation with the supervising instructor. Prerequisite: written permission of the department undergraduate studies committee.

MATH 495-3 Selected Topics in Applied Mathematics
The topics included in this course will vary from semester to semester depending on faculty availability and student interest. Prerequisite: Will be specified according to the particular topic or topics offered under this course number.

MATH 496-4 Selected Topics in Mathematics
The topics covered in these courses will vary from semester to semester depending on faculty availability and student interest. Prerequisite: will be specified according to the particular topic or topics offered under these course numbers.

MATH 497-3 Directed Studies
Independent reading or research in topics selected in consultation with the supervising instructor. Prerequisite: written permission of the department undergraduate studies committee.

MATH 601-4 Discovering Mathematics I
Arithmetic and Geometry form the core of the elementary school curriculum. The fundamental concepts in both these areas of mathematics will be approached through exploratory exercises and problems as well as in projects. The students will work both singly and in groups to explore the ideas of mathematics. The presentations will be non-theoretical. Prerequisite: acceptance into the master's program in mathematics education or permission of the department. Graduate students in Department of Mathematics cannot take this course to satisfy their degree requirements.

MATH 602-4 Discovering Mathematics II
Discrete mathematics is used in computer communications, scheduling and transportation problems. Statistics is encountered by each of us every day in the newspapers and on television as medical findings, sporting results and economic strategies are discussed. These are two of the most accessible areas of modern applied mathematics and many problems and the ideas behind their solution can be understood and appreciated by students with only a modest mathematical background. Several topics in these areas and their relationship to real world problems will be explored. The exploration will be done through a series of projects with students often working in teams and making presentations of their discoveries. The presentation will be non-theoretical. Prerequisite: MATH 601 and acceptance into the master's program in mathematics education or permission of the department. Graduate students in Department of Mathematics cannot take this course to satisfy their degree requirements.

MATH 603-4 Foundations of Mathematics
Crisis in mathematics, their historical and philosophical background and their resolution. Prerequisite: acceptance into the MSc program in mathematics education or permission of the department. Graduate students in the Department of Mathematics cannot take this course to satisfy their degree requirements.

MATH 604-4 Geometry
Euclidean and non-Euclidean geometries. Klein’s enlarget program. Prerequisite: entrance into the MSc in mathematics education program or permission of the instructor. Graduate students in the Department of Mathematics cannot take this course to satisfy their degree requirements.

MATH 605-4 Mathematics in Context
Mathematical modeling in the largest sense with a focus on topics and issues related to doing and discovering mathematics, including explorations of available computational resources, e.g., Maple. Prerequisite: acceptance into the MSc program in mathematics education and one year of university level calculus. Graduate students in the Department of Mathematics cannot take this course to satisfy their degree requirements.

MATH 701-4 Computer Algebra
Data-structures and algorithms for mathematical objects, including polynomials, general mathematical formulae, long integer arithmetic, polynomial greatest common division, the Risch integration algorithm. Other topics include symbolic differentiation, simplification of formulae, and polynomial factorization. Students will learn Maple for use on assignments. Prerequisite: CMPT 307 or MATH 332. Students may not take a 700 division course if it is being offered in conjunction with a 400 division course which they have taken previously.

MATH 716-3 Numerical Analysis II
The numerical solution of ordinary differential equations and elliptic, hyperbolic and parabolic partial differential equations will be considered. Prerequisite: MATH 310 (or 352) and MACM 316. Students may not take a 700 division course if it is being offered in conjunction with a 400 division course which they have taken previously.

MATH 718-3 Partial Differential Equations
First-order linear equations, the method of characteristics. The wave equation. Harmonic functions, the maximum principle, Green's functions. The heat equation. Distributions and transforms. Higher dimensional eigenvalue problems. An introduction to nonlinear equations. Burgers' equation and shock waves. Prerequisite: MATH 314 (or PHYS 384), or permission of the department. Recommended: MATH 242 and 320. Students may not take a 700 division course if it is being offered in conjunction with a 400 division course which they have taken previously.

MATH 719-3 Linear Analysis
Convergence in Euclidean spaces, Fourier series and their convergence, Legendre polynomials, Hermite and Laguerre polynomials. Prerequisite: MATH 232, 320 or permission of the instructor. Recommended: MATH 252. Students may not take a 700 division course if it is being offered in conjunction with a 400 division course which they have taken previously.

MATH 724-3 Applications of Complex Analysis
Conformal mapping, application to boundary value problems, Schwarz-Christoffel transformation, integral formulas, analytic continuation, argument principle. Prerequisite: MATH 322. Students may not take a 700 division course if it is being offered in conjunction with a 400 division course which they have taken previously.

MATH 725-3 Real Analysis
Metric spaces, normed vector spaces, measure and integration, an introduction to functional analysis. Prerequisite: MATH 320. Students may not take a 700 division course if it is being offered in conjunction with a 400 division course which they have taken previously.

MATH 738-3 Linear Algebra
Linear Algebra. Vector space and matrix theory. Prerequisite: MATH 332 or 339 or permission of the instructor. Students may not take a 700 division course if it is being offered in conjunction with a 400 division course which they have taken previously.

MATH 739-3 Algebraic Systems
Algebraic systems including, for example, groups, rings. Polynomial theory. Prerequisite: MATH 332. Students may not take a 700 division course if it is being offered in conjunction with a 400 division course which they have taken previously.

MATH 740-3 Galois Theory
An introduction to the theory of fields, with emphasis on Galois theory. Prerequisite: MATH 332. Students may not take a 700 division course if it is being offered in conjunction with a 400 division course which they have taken previously.

MATH 743-3 Combinatorial Theory
Graph colouring. Hamiltonian graphs, planar graphs, random graphs, Ramsey theory, extremal problems, additional topics. Prerequisite: MATH 343 and MATH 332. Recommended: MATH 345. Students may not take a 700 division course if it is being offered in conjunction with a 400 division course which they have taken previously.

MATH 745-3 Graph Theory
Graph colouring. Hamiltonian graphs, planar graphs, random graphs, Ramsey theory, extremal problems, additional topics. Prerequisite: MATH 343. Recommended: MATH 345. Students may not take a 700 division course if it is being offered in conjunction with a 400 division course which they have taken previously.

MATH 747-4 Coding Theory
An introduction to the theory and practice of error-correcting codes. Topics will include finite fields, polynomial rings, linear and non-linear codes, BCH codes, convolutional codes, majority logic decoding, weight distribution of codes, and bounds on the size of codes. Prerequisite: MATH 343. Recommended: MATH 332. Students may not take a 700 division course if it is being offered in conjunction with a 400 division course which they have taken previously.

MATH 761-3 Continuous Mathematical Models
Formulation, analysis and numerical solution of continuous mathematical models. Applications may be selected from topics in physics, biology, engineering and economics. Prerequisite: MATH 314 and MACM 316. Students may not take a 700 division course if it is being offered in conjunction with a 400 division course which they have taken previously.

MATH 762-3 Fluid Dynamics
Incompressible fluid flow phenomena: kinematics and equations of motion, viscous flow and boundary layer theory, potential flow, water waves. Aerodynamics. Prerequisite: MATH 314 or PHYS 384, MATH 322. Students may not take a 700 division course if it is being offered in conjunction with a 400 division course which they have taken previously.

MATH 767-3 Dynamical Systems
Stability and bifurcation in vector fields and discrete maps. Centre manifold theory and applications of normal forms. Introduction to chaos, Lyapunov exponents, and normal hyperbolicity. Prerequisite: MATH 310. Recommended: MATH 320. Students may not take a 700 division course if it is being offered in conjunction with a 400 division course which they have taken previously.

MATH 800-4 Mathematics: Selected Topics
A survey of graduate group and/or ring theory. Possible topics include generators and relations, composition series, Sylow theory, permutation groups, abelian groups, p-groups, nilpotent and solvable groups, aspects of simple groups,
MATH 818-4 Algebra and Geometry
An introduction to algebraic geometry with supporting commutative algebra. Possible topics include Hilbert basis theorem, Hilbert Nullstellensatz, Groebner bases, ideal decomposition, local rings, dimension, tangent and cotangent spaces, differentials, varieties, morphisms, rational maps, non-singularity, intersection in projective space, cohomology theory, curves, surfaces, homological algebra.

MATH 819-4 Algebra: Selected Topics
MATH 820-4 Graph Theory
A first course in graph theory dealing with some of the following: algebraic graph theory, extremal graph theory, colouring problems, path and cycle structure of graphs, application of graphs, hypergraphs, and current research topics.

MATH 821-4 Combinatorics
An introduction to the theory of incidence structures (finite geometries, block designs) and their relation to linear codes. Algebraic techniques - finite group actions, orbit enumeration, generation of orbit representatives. Exact and asymptotic enumeration of labelled and unlabelled structures.

MATH 826-4 Posets and Matroids
An introduction to the theory of posets, geometric lattices and matroids.

MATH 827-4 Discrete Mathematics: Selected Topics
MATH 831-4 Real Analysis I
An intensive study of Lebesgue measure, integration and the Lebesgue convergence theorems together with the treatment of such topics as absolute continuity, the fundamental theorem of calculus, the Lp-spaces, comparison of types of convergence in function spaces, the Baire category theorem.

MATH 833-4 Analysis: Selected Topics
MATH 836-4 Complex Analysis I
Topics covered normally will include: Riemann surfaces, complex conjugate co-ordinates; the maximum principle, boundary value problems; conformal mappings, Schwartz-Christoffel formula; the symmetry principle, analytic continuation.

MATH 841-4 Topology: Selected Topics
MATH 842-4 Algebraic Number Theory
Review of Galois theory, integrality, rings of integers, traces, norms, discriminants, ideals, Dedekind domains, class groups, unit groups, Minkowski theory, ramification, cyclotomic fields, valuations, completions, applications.

MATH 843-4 Analytic and Diophantine Number Theory
Arithmetic functions, distribution of prime numbers, theory of Dirichlet characters, Dirichlet series, theory of Riemann Zeta functions and Dirichlet L-functions, exponential sums, character sums, Diophantine equations, Diophantine approximations, applications.

MATH 845-4 Number Theory: Selected Topics
MATH 877-1 Supplementary Reading
MATH 878-6 PhD Comprehensive Examination
A comprehensive written examination covering a broad range of senior undergraduate and graduate material.

MATH 879-4 PhD Thesis Proposal
An open oral defence of a written thesis proposal presented to the student's supervisory committee.

MATH 880-0 MSc Project
A project leading to research in mathematics completed under the supervision of a faculty member. The project will consist of a written report and a public presentation. This course can only be used for credit towards the MSc project course option.

MATH 882-0 MSc Final Examination
A written examination covering senior undergraduate and basic graduate material.

MATH 890-0 Practicum I
First semester of work experience in a co-operative education program.

MATH 891-0 Practicum II
Second semester of work experience in a co-operative education program.

MATH 892-0 Practicum III
Third semester of work experience in the Co-operative Education Program. Prerequisite: MATH 891.

MATH 893-0 Practicum IV
Fourth semester of work experience in the Co-operative Education Program. Prerequisite: MATH 892.

MATH 894-2 Reading
MATH 895-4 Reading
MATH 896-2 Introductory Seminar
MATH 897-2 Advanced Seminar
MATH 898-6 MSc Thesis
Note: The credit values assigned to this course are for administrative purposes only and cannot be used towards degree course work requirements.

MATH 899-6 PhD Thesis
Note: The credit values assigned to this course are for administrative purposes only and cannot be used towards degree course work requirements.

Mathematics and Computing Science MACM
Faculties of Applied Sciences and Science
MACM 101-3 Discrete Mathematics I
Introduction to counting, induction, automata theory, formal reasoning, modular arithmetic. Prerequisite: BC high school mathematics 12. Entry into this course is obtained through the School of Computing Science.

MACM 201-3 Discrete Mathematics II
A continuation of MACM 101. Topics covered include graph theory, trees, inclusion-exclusion, generating functions, recurrence relations, and optimization and matching. Prerequisite: MACM 101.

MACM 202-4 Mathematical Modeling and Computation
A variety of continuous and discrete models such as difference equations, differential equations, networks, cellular automata, and fractsals are introduced. Students will develop mathematical models for physical phenomena, and use the computer to simulate and analyze the models. A mathematical software package, such as Maple or Matlab, will be extensively used in a laboratory setting. Prerequisites: MATH 152 (or MATH 155 or 158), and CMPT 125 (or CMPT 101 or 104 or 126) and MATH 232 (co-requisite).

MACM 300-3 Introduction to Formal Languages and Automata with Applications
Languages, grammars, automata and their applications to natural and formal language processing. Prerequisite: MACM 201.

MACM 316-3 Numerical Analysis I
A presentation of the problems commonly arising in numerical analysis and scientific computing and the basic methods for their solutions. Prerequisite: MATH 152 or 155 or 158, and 232 and knowledge of a high level computer language such as FORTRAN, C, PASCAL or MODULA 2. Students with credit for MATH 406 or MATH 316 may not receive further credit for MACM 316.

MACM 401-3 Introduction to Computer Algebra
A first course in computer algebra — also called symbolic computation. It covers data-structures and algorithms for mathematical objects, including polynomials, general mathematical formulae, long integer arithmetic, polynomial greatest common divisors, the Risch integration algorithm. Other topics include symbolic differentiation, simplification of formulae, and polynomial factorization. Students will learn Maple for use on assignments. Prerequisite: CMPT 307 or MATH 332.

MACM 416-3 Numerical Analysis II
The numerical solution of ordinary differential equations and elliptic, hyperbolic and parabolic partial differential equations will be considered. Prerequisite: MATH 310 (or 352) and MACM 316. Students with credit for MATH 416 may not take MACM 416 for further credit.

MACM 498-3 Selected Topics in Mathematics and Computing Science
The topics will vary from semester to semester depending on faculty availability and student interest. Prerequisite: will be specified according to the particular topic or topics offered under this course number.

Molecular Biology and Biochemistry MBB
Faculty of Science
MBB 151-0 Practicum I
First semester of work experience in the Molecular Biology and Biochemistry Co-operative Education Program. Prerequisite: Acceptance in the Science Co-operative Education Program.

MBB 221-3 Cellular Biology and Biochemistry
A study of the molecular processes which underlie cell structure and function, integrating ultrastructural, physiological and biochemical approaches. Modern techniques used in the analysis of organelle and cell function are integral parts of the courses. Prerequisite: BISC 101. Corequisite: CHEM 281 (or 150). Recommended: CHEM 282 preceed MBB 221. Students with credit for BICH 221 may not take MBB 221 for further credit.

MBB 222-3 Molecular Biology and Biochemistry
An introduction to DNA replication and recombination, RNA transcription and protein synthesis in the context of their locations within the cell and their timing in the cell cycle. The relationship between structure and function of proteins and nucleic acids will be addressed. Prerequisite: MBB 221 or BICH 221. Corequisite: CHEM 282 (or 250). Recommended: CHEM 282 preceed MBB 222. Students with credit for BICH 222 may not take MBB 222 for further credit.

MBB 251-0 Practicum II
Second semester of work experience in the Molecular Biology and Biochemistry Co-operative Education Program. Prerequisite: Acceptance in the Science Co-operative Education Program.

MBB 300-1 Special Topics in Biotechnology and Business
A survey of the legal, economic and social aspects of technology transfer in the areas of molecular biology, biochemistry, and biotechnology presented by a series of local experts. Topics will include patents, contracts, intellectual property, capitalization and others. The format will be a formal lecture followed by a workshop. Prerequisite: completion of the second year in the Molecular Biology and Biochemistry and Business Administration joint major or equivalent experience.

Simon Fraser University 2005 - 2006
MBB 308-3 Molecular Biology and Biochemistry Lab I
Modern molecular biological and recombinant DNA methods such as DNA isolation, plasmid preparation, restriction enzyme digestion, Southern blots, cloning, and polymerase chain reaction. Prerequisite: MBB 222 (or BICH 222), CHEM 281, and MBB 331-3 as a co-or prerequisite (the latter is recommended). Students with credit for BISC 431, BICH 311 or MBB 311 may not take MBB 403 for further credit.

MBB 309-3 Molecular Biology and Biochemistry Laboratory II
Contemporary techniques in biochemistry including protein purification, immunochemical methods, and lipid characterization. Prerequisite: CHEM 282, MBB 222. Recommended: CHEM 215 and CHEM 286 preceede MBB 309. Note: CHEM 286 is not required in the MBB-BUS or MBB-CMPT joint major programs, but students in these programs are encouraged to take CHEM 286. Students with credit for MBB 312 or BICH 312 may not take MBB 309 for further credit.

MBB 321-3 Intermediary Metabolism
Major catabolic and anabolic pathways and their regulation. Particular emphasis is placed on bioenergetics and experimental methods encountered in biochemical research. Prerequisite: MBB 292, Classes will be in the form of lectures and student presentations. Prerequisite: MBB 321 or consent of instructor. Students with credit for BICH 414 may not take MBB 413 for further credit.

MBB 322-3 Molecular Physiology
Cellular and biochemical aspects of immunology, muscle contraction, cell motility, neural transmission, the action of hormones. The course will also explore the cellular and molecular bases of cancer. Prerequisite: MBB 222 (or BICH 222) and CHEM 282 (or 250). Students with credit for BICH 321 may not take MBB 321 for further credit.

MBB 323-3 Introduction to Physical Biochemistry
Introduction to physical biochemistry including rigorous treatment of thermodynamics and molecular transport and interactions with specific emphasis on biochemical and molecular biological processes. CHEM 360 may be substituted as an alternative to this requirement for MBB majors. Prerequisite: MATH 152 or 155, PHYS 121 (or 102), CHEM 122 (or 102), MBB 222.

MBB 331-3 Molecular Biology
The study of DNA and RNA in relation to gene structure and expression: DNA replication and the regulation of gene expression in bacteria and higher organisms. Introduction to recombinant DNA and cloning theory; natural vector structures and recombinant vector construction. Prerequisite: MBB 222, BISC 202. Students with credit for BISC 331 may not take this course for credit.

MBB 351-0 Practicum III
Third semester of work experience in the Molecular Biology and Biochemistry Co-operative Education Program. Prerequisite: Acceptance in the Science Co-operative Education Program.

MBB 402-3 Molecular Genetics
Advanced problems concerning the nature and function of genetic material. Prerequisite: BISC 333 and MBB 331 (or BISC 331). Students with credit for BISC 402 may not take this course for credit.

MBB 403-3 Physical Biochemistry
The physical properties of biomacromolecules and their use in determining molecular weight and conformation; modern physical methods applied to biomolecules; properties and analysis of membrane systems. Prerequisite: MBB 321 (or BICH 321) and either MBB 323 or CHEM 360 (or 281). Recommended: MBB 413 (or BICH 413) should be taken concurrently. Students with credit for BICH 403 may not take MBB 403 for further credit.

MBB 412-4 Enzymology
Enzyme isolation and assay procedures: energy of activation; enzyme kinetics and inhibition; mechanisms of enzyme action; allosteric enzymes. Prerequisite: MBB 321 (or BICH 321), either MBB 323 or CHEM 360 (or 261), and MBB 309. Students with credit for BICH 412 may not take MBB 412 for further credit.

MBB 413-2 Physical Biochemistry Laboratory
The measurement of physical properties of macromolecules; studies with bio-membranes. Prerequisite: MBB 309 (or 312) and 321 (or BICH 321). Corequisite: MBB 403 (or BICH 403). Students with credit for BICH 413 may not take MBB 413 for further credit.

MBB 420-3 Selected Topics in Contemporary Biochemistry
The topics in this course will vary from semester to semester, depending on faculty availability and student interest. Prerequisite: will be announced before the start of the semester and will depend upon the nature of the topic offered.

MBB 421-3 Nucleic Acids
Recent literature is examined for insights into the structure and properties of DNA and RNA, drawing on a variety of biochemical, chemical and molecular biological perspectives. Prerequisite: MBB 331 (or BISC 331). Students with credit for BICH 421 may not take MBB 421 for further credit.

MBB 422-3 Biomembranes
A review of recent research on the structure, dynamics, function and biosynthesis of membranes, membrane lipids and proteins. Prerequisite: MBB 322 (or BICH 321 and 322) and either MBB 323 or CHEM 360. Students with credit for BICH 422 may not take MBB 422 for further credit.

MBB 423-3 Protein Structure and Function
Recent research in transition state theory; specificity in enzyme catalyzed reactions, the use of recombinant DNA techniques to describe and modify enzyme catalysis, the function of enzymes in organic solvents, and the development of new catalytic activities through monoclonal antibody techniques. Prerequisite: MBB 331 (or BISC 331) and either MBB 321 (or BICH 321) and MBB 322 (or BICH 322). Students with credit for BICH 423 may not take MBB 423 for further credit.

MBB 426-3 Immunology
This course aims at covering the field of immunology, with emphasis on the human immune system. The first half of the course covers topics explaining how immune recognition occurs, whereas the second half of the course covers topics involving disease states and the role the immune system plays in them (i.e. immune responses to infection, immunodeficiency, hypersensitivity reactions, autoimmunity, and transplantation). Prerequisite: MBB 322 (or BICH 322) or consent of instructor. Students with credit for BICH 426 may not take MBB 426 for further credit.

MBB 432-3 Advanced Molecular Biology Techniques
Laboratory with accompanying lectures designed to give practical experience in advanced contemporary molecular biology techniques. Lab exercises will include site-directed mutagenesis, preparation and characterization of GST-fusion proteins, construction of transgenes and their expression in transgenic organisms, and the use of the yeast two-hybrid assay to study protein-protein interactions. Prerequisite: MBB 308 and MBB 311, MBB 309 or permission of instructor.

MBB 435-3 Genomic Analysis
The analysis of entire genomes of organisms has only been possible since 1995. This new area of study will be examined in detail with emphasis on current research. Prerequisite: MBB 331 (or BISC 331). Students with credit for BICH 435 may not take MBB 435 for further credit.

MBB 436-3 Gene Expression
Lectures and student presentations will cover the wide range of ways in which organisms (primarily eukaryotes) regulate gene expression along the pathway from DNA to protein. Prerequisite: MBB 321, 322, and MBB 331 or BISC 331, or permission of instructor.

MBB 437-3 Selected Topics in Signal Transduction
Signal transduction, the conversion of an extracellular signal into a cellular response, is presently one of the most intensively studied aspects of biology. Signaling pathways control a wide range of cellular processes and the characterization of these pathways is having a major impact on cell biology, developmental biology, biotechnology and medicine. In this course, we shall be examining the current literature in this rapidly developing field. We will look at how a combination of biochemistry, cell biology and genetics is being used to investigate the diverse mechanisms used in cell signaling, and examine how the various approaches to studying signal transduction complement each other. The course will be in the form of lectures and student presentations. Prerequisite: MBB 321, MBB 322 and MBB 331 or BISC 331 or permission of the instructor.

MBB 438-3 Human Molecular Genetics
The course will describe recent advances in human molecular genetics. Topics will include genome analysis, gene therapy, genetic testing, and studies of genetic disorders. Prerequisite: MBB 331 (or BISC 331).

MBB 440-3 Selected Topics in Contemporary Molecular Biology
The topics in this course will vary from semester to semester, depending on faculty availability and student interest. Prerequisite: will depend upon the nature of the topic offered. Corequisite: will depend upon the nature of the topic offered.

MBB 441-3 Bioinformatics
Lectures and hands-on instruction at the computer in the use of computer algebra and bioinformatic software and algorithms for the analysis of macromolecular data. Prerequisite: MBB 331 (or BISC 331), and an introductory computer science course (e.g. CMPT 102, 104, or 110), or equivalent.

MBB 442-3 Proteomics
Proteomics concerns the analysis of the entire complement of proteins expressed by an organism. This course will consider protein sequence alignment, sequence database scanning, classification of protein structures, prediction of protein structure and function, and evolution of protein function. Prerequisite: MBB 321 (or BICH 321) and MBB 322 (or BICH 322); one introductory computer course (e.g. CMPT 102, 104 or 110).

MBB 443-3 Protein Biogenesis and Degradation
A consideration of protein biogenesis (folding, assembly, and targeting to cellular compartments), modification, and degradation, and their roles in protein and cellular function. Prerequisite: MBB 321 (or BICH 321) and MBB 322 (or BICH 322); one introductory computer course (e.g. CMPT 102, 104 or 110).

MBB 451-0 Practicum IV
Fourth semester of work experience in the Molecular Biology and Biochemistry Co-operative Education Program. Prerequisite: Acceptance in the Science Co-operative Education Program.

MBB 452-0 Practicum V
Fifth semester of work experience in the Molecular Biology and Biochemistry Co-operative Education.
Directed reading and part-time scientific research in an area of molecular biology or biochemistry. This course is intended only for those students taking a joint MBB/BUS or MBB/CS honors degree. Before seeking approval for registration in this course, the student should have already obtained the agreement of a faculty member that he/she is willing to supervise the project, and have prepared a written proposal (of approximately one page) stating the nature of the directed reading topic. The course will include the preparation of a written term paper on the topic chosen. Prerequisite: MBB 222 (or BICH 222) and permission of the molecular biology and biochemistry department. Usually, upper level standing with at least 60 semester hours in a molecular biology major, minor or honors program will be required. Students with credit for BICH 490 may not take MBB 490 for further credit.

Part-time laboratory research in an area of molecular biology or biochemistry. This course is available to honors students with credit for BICH 492 but may not be taken for credit with MBB 492. Prerequisite: permission of the molecular biology and biochemistry department. Usually, upper level standing with at least 60 semester hours in a molecular biology major, minor or honors program will be required. Students with credit for BICH 491 may not take MBB 491 for further credit.

Full-time laboratory research in an area of molecular biology or biochemistry for preparation of a thesis for the honors degree in molecular biology and biochemistry. This course is available to honors students who have already taken MBB 491 (or BICH 491-3), or who have completed an individual studies project into two semesters (see below). The course will include the preparation of a comprehensive written research report on the results of the project, and may also, at the discretion of the supervisor, include an oral presentation of the results. Prerequisite: permission of the department. Students with credit for BICH 492 may not take MBB 492 for further credit.

Full time laboratory research in an area of molecular biology or biochemistry for preparation of a thesis for the honors degree in molecular biology and biochemistry. This course is available to honors students who have not yet taken an undergraduate research course and wish to complete an individual studies project in one semester. The course will include the preparation of a comprehensive written research report on the results of the project, and may also, at the discretion of the supervisor, include an oral presentation of the results. Prerequisite: permission of the molecular biology and biochemistry department. Students with credit for BICH 493 may not take MBB 493 for further credit.

Directed reading and part-time scientific research in an area of molecular biology or biochemistry. This course is intended only for those students taking a joint MBB/BUS or MBB/CS honors degree. Before seeking approval for registration in this course, the student should already have obtained the agreement of a faculty member that he/she is willing to supervise the project, and have prepared a written proposal (of approximately 1-2 pages) stating the nature of the research readings and project. The course will include preparation of a written report on the results of the project, and may, at the discretion of the supervisor, include an oral presentation of the results. Prerequisite: 75 credit hours and upper division standing in an MBB joint honors program, and MBB 308. Students who take MBB 496 are not allowed to take MBB 491, 492 or 493 with the same faculty supervisor.

Directed Readings and Research

MBB 496-6 Joint Honors Undergraduate Directed Readings and Research

Directed reading and part-time scientific research in an area of molecular biology or biochemistry. This course is intended only for those students taking a joint MBB/BUS or MBB/CS honors degree. Before seeking approval for registration in this course, the student should already have obtained the agreement of a faculty member that he/she is willing to supervise the project, and have prepared a written proposal (of approximately 1-2 pages) stating the nature of the research readings and project. The course will include preparation of a written report on the results of the project, and may, at the discretion of the supervisor, include an oral presentation of the results. Prerequisite: 75 credit hours and upper division standing in an MBB joint honors program, and MBB 308. Students who take MBB 496 are not allowed to take MBB 491, 492 or 493 with the same faculty supervisor.

MBB 505-3 Problem Based Learning in Bioinformatics

The problem-based learning course will develop students’ ability to exchange ideas in small groups focused on real but simplified problems in bioinformatics. Problems will be carefully selected to cover all aspects of bioinformatics research. Prerequisite: Enrolled in Graduate Diploma in Bioinformatics. This course is identical to CMP2 506 and students cannot take both courses for credit.

MBB 506-3 Critical Research Analysis

Advanced seminar series for bioinformatics. Prerequisites: Enrollment in Graduate Diploma in Bioinformatics. This course is identical to CMP2 506 and students cannot take both courses for credit.

MBB 611-6 Research Rotation I

One semester of original bioinformatics research conducted in the lab of a designated mentor. Students are required to write their results in a scientific journal format and defend these results before a panel consisting of the project mentor plus two other qualified faculty members. Prerequisite: Enrollment in Graduate Diploma in Bioinformatics. This course is identical to CMP2 611 and students cannot receive credit for both courses.

MBB 612-6 Research Rotation II

One semester of original bioinformatics research conducted in the lab of a designated mentor. Students are required to write their results in a scientific journal format and defend these results before a panel consisting of the project mentor plus two other qualified faculty members. Prerequisite: Enrollment in Graduate Diploma in Bioinformatics. This course is identical to CMP2 612 and students cannot receive credit for both courses.

MBB 613-6 Research Rotation III

One semester of original bioinformatics research conducted in the lab of a designated mentor. Students are required to write their results in a scientific journal format and defend these results before a panel consisting of the project mentor plus two other qualified faculty members. Prerequisite: Enrollment in Graduate Diploma in Bioinformatics. This course is identical to CMP2 613 and students cannot receive credit for both courses.

MBB 659-3 Special Topics in Bioinformatics

Consideration of recent literature on contemporary topics in bioinformatics. Prerequisites: MBB 441 or 841; or CMP2 341 or 881

MBB 669-3 Special Topics in Genomics

Consideration of recent research literature on contemporary topics in genomics. Prerequisites: MBB 435 or 835.

MBB 679-3 Special Topics in Proteomics

Consideration of recent research literature on contemporary topics in proteomics. Prerequisites: MBB 442 or 842.

MBB 801-2 Student Seminar in Molecular Biology and Biochemistry I

Discussion of recent literature through student seminars and written reports. Cannot be taken for credit in addition to CHEM 801.

MBB 802-2 Student Seminar in Molecular Biology and Biochemistry II

Discussion of recent literature through student seminars and written reports. Prerequisite: MBB 801 or an MSc degree.

MBB 806-3 PhD Graduate Research Seminar

Oral presentation and defense of a written PhD research proposal. Students will be examined on their progress and grasp of knowledge relevant to the proposed research and their capacity to complete the proposed thesis research. Open only to students in the molecular biology and biochemistry graduate program.

MBB 811-1 Techniques in Molecular Biology and Biochemistry

Consideration of methods applied to research in molecular, cellular, and developmental biology; genetics; and biochemistry. Can be repeated with permission of the instructor.

MBB 812-2 Techniques in Molecular Biology and Biochemistry

Consideration of methods applied to research in molecular, cellular, and developmental biology; genetics; and biochemistry. Can be repeated with permission of the instructor.

MBB 813-3 Techniques in Molecular Biology and Biochemistry

Consideration of methods applied to research in molecular, cellular, and developmental biology; genetics; and biochemistry. Can be repeated with permission of the instructor.

MBB 821-3 Nucleic Acids

An examination of recent literature about the structure and function of DNA and RNA.

MBB 822-3 Biological Membranes

A review of recent literature on the structure, dynamics, function and biosynthesis of membrane lipids and proteins.

MBB 823-3 Protein Structure and Function

Transition state theory; specificity in enzyme catalyzed reactions; use of recombinant DNA techniques to describe and modify enzyme catalysis, catalytic activities through monoclonal antibody techniques.

MBB 824-3 Physical Biochemistry

The physical properties of biomacromolecules; modern physical methods applied to biomolecules; properties and analysis of membrane systems.

MBB 825-3 Bioenergetics

Consideration of important processes for biological energy transduction. Structure/function relationships of membrane components and other interacting macromolecular systems. Cannot be taken for credit in addition to CHEM 825.

MBB 826-3 Molecular Immunology

An overview of cellular and humoral immunity with emphasis on the molecular basis of immune recognition and response.

MBB 827-3 Mechanisms in Enzyme Catalysis

The study of enzyme mechanisms by a variety of techniques including spectroscopic, kinetic, radiotopic exchange, and site-directed mutagenesis.

MBB 828-3 Spectroscopic Methods in Biochemistry

Application of spectroscopic methods including multidimensional NMR, fluorescence, circular dichroism, and FTIR for determination of
biomacromolecular structure. Includes elements of protein conformation.

MBB 829-3 Special Topics in Biochemistry
Consideration of recent literature concerning selected contemporary research topics. Can be taken more than once with permission of the instructor.

MBB 831-3 Molecular Evolution of Eukaryote Genomes
Examination of the dynamics of change in eukaryotic nuclear, mitochondrial, and chloroplast genome structure and organization.

MBB 832-3 Molecular Phylogeny and Evolution
Examination of the basic methods applicable to analyses of molecular phylogeny and evolution.

MBB 833-3 Developmental Genetics
Selected topics in the developmental genetics of drosophila.

MBB 834-3 Topics in Developmental Biology
Selected topics including pattern formation, morphogenetic determinants, inductive interactions, and differential gene expression in embryos.

MBB 835-3 Genome Analysis
Consideration of topics related to the structure and function of the genome with emphasis on genome mapping and sequencing projects, and computational methods for genomic sequence analysis.

MBB 836-3 Gene Expression
A consideration of the mechanisms and regulation of gene expression in eukaryotes and prokaryotes.

MBB 837-3 Selected Topics in Signal Transduction
Consideration of recent literature dealing with mechanisms of signal transduction. The emphasis of the course varies from semester to semester. Past offerings have ranged from a specific focus on studying signaling using molecular genetics in model organisms, to an examination of diverse cellular biological, biochemical, and genetic approaches being used in current signal transduction research.

MBB 838-3 Human Molecular Genetics
The course will consider recent advances in human molecular genetics. Topics will include genome analysis, genetic testing, and studies of genetic disorders. Prerequisite: MBB 331 (or BISC 331) or equivalent.

MBB 839-3 Special Topics in Molecular Biology
Consideration of recent literature concerning selected contemporary research topics. Can be taken more than once with permission of instructor.

MBB 841-3 Bioinformatics
An overview of the newly emerging field of bioinformatics, which is loosely defined as the intersection between the fields of molecular biology and computer science. A combination of lecture format and hands-on instruction is provided in the use of, and theory behind, bioinformatic software tools used in genomic and computational biology research. An introduction to the development of bioinformatic software is included, though only basic computer science knowledge is required for this particular course. Prerequisite: one introductory computer programming course (e.g. CMPT 102, 103 or 110 or equivalent).

MBB 842-3 Proteomics
Since the completion of the human genome, the next step is to understand the function of these genes. Proteomics cover the integration of a number of topics with the aim of analyzing the complete complement of proteins expressed by a biological system. This course will give a general understanding of the proteome, describe many of the different aspects of proteomics that have been developed recently, identify the technologic limitations related to proteomics, and will also include likely future directions for the field. Prerequisite: one introductory computer programming course (e.g. CMPT 101, 102, 103 or 110 or equivalent).

MBB 843-3 Protein Biogenesis, Function and Degradation
The central dogma of molecular biology (DNA to RNA to protein) underscores two fundamental biological processes, transcription and translation, that are essential to life. Protein biogenesis (folding, assembly, targeting to the proper cellular compartment), protein modification and degradation represent three other equally important cellular activities. The emphasis in this course will be to review the literature on protein biogenesis, function, and degradation, and explore the new and exciting developments that are just starting to uncover how mechanistically complex these processes are.

MBB 871-1 Directed Readings in Molecular Biology and Biochemistry
Programs of directed reading and critical discussions offered by faculty or staff members to individual students according to their needs. Study programs must be approved by the molecular biology and biochemistry graduate studies committee.

MBB 872-2 Directed Readings in Molecular Biology and Biochemistry
Programs of directed reading and critical discussions offered by faculty or staff members to individual students according to their needs. Study programs must be approved by the molecular biology and biochemistry graduate studies committee.

MBB 873-3 Directed Readings in Molecular Biology and Biochemistry
Programs of directed reading and critical discussions offered by faculty or staff members to individual students according to their needs. Study programs must be approved by the molecular biology and biochemistry graduate studies committee.

Nuclear Science NUSC Faculty of Science

NUSC 341-3 Introduction to Radiochemistry
Brief description of the nucleus and its decays and reactions; interaction of radiation with matter; nuclear instrumentation; radioisotopes in chemistry; activation analysis and related analytical techniques; other applications of nuclear techniques; nuclear reactors and nuclear fusion. Prerequisite: completion of 60 credit hours in a science program, including first year calculus, chemistry and physics.

NUSC 342-3 Introduction to Nuclear Science
Review of nuclear properties and systems. Properties of the nuclear force; shell model and structure of complex nuclei, nuclear decay via particle emission and spontaneous fission; experimental description of nuclear reactions; nuclear-nucleus and heavy ion reactions. Prerequisite: NUSC 341 or permission of the department. Recommended: MATH 251

NUSC 344-3 Nucleosynthesis and Distribution of the Elements
Formation and distribution of the chemical elements in the early universe, in present stellar environments and in the solar system; elemental abundances and isotopic ratios; and radiometric chronology techniques. Prerequisite: completion of 60 credit hours in a science program, including first year calculus, chemistry and physics.

NUSC 346-2 Radiochemistry Laboratory
Introduction to the techniques of radiochemistry; proportional and Geiger counters; sample preparations and half-life measurement; synthesis and separation of labelled compounds; beta and gamma-ray spectroscopy. Prerequisite: NUSC 341.

NUSC 444-3 Special Topics in Nuclear Science
Advanced topics in nuclear science. Prerequisite: NUSC 342 or 442, or permission of the department.

NUSC 485-3 Particle Physics
Physics of elementary particles. Symmetries, strong interactions, electromagnetic interactions, weak interaction. Prerequisite: PHYS 385 or CHEM 260 or 361 or permission of the department. Recommended: PHYS 380.

Philosophy PHIL Faculty of Arts and Social Sciences

PHIL 001-3 Critical Thinking
An introduction to the evaluation of arguments as they are encountered in everyday life. The central aim will be to sharpen skills of reasoning and argumentation by understanding how arguments work and learning to distinguish which actually prove what they set out to show from those which do not. Open to all students.

PHIL 100-3 Knowledge and Reality
An introduction to some of the central problems of philosophy. Topics to be discussed include the different theories of reality; the nature and sources of knowledge, truth, evidence, and reason; the justification of belief and knowledge about the universe. These topics and problems will be considered as they arise in the context of issues such as: relativism versus absolutism; the existence of God; personal identity; the nature of the mind and its relation to the body; free-will and determinism; the possibility of moral knowledge. Open to all students.

PHIL 110-3 Introduction to Logic and Reasoning
The aim of this course is to familiarize students with fundamental techniques of correct reasoning. Special attention is given to the methods of logic in particular, and to their role in the discovery of truth not only within science and philosophy but within all forms of rational enquiry. Open to all students.

PHIL 120-3 Introduction to Moral Philosophy
An introduction to the central problems of ethics: for example, the nature of right and wrong, the objectivity or subjectivity of moral judgments, the relativist or absolutist of values, the nature of human freedom and responsibility. The course will also consider general moral views such as utilitarianism, theories or rights and specific obligations, and the ethics of virtue. These theories will be applied to particular moral problems such as abortion, punishment, distributive justice, freedom of speech, and racial and sexual equality. Sometimes the course will also focus on important historical figures such as Plato, Aristotle, Kant and Mill. Open to all students.

PHIL 150-3 History of Philosophy I
A survey of philosophical thought from late antiquity to the Renaissance. Special attention will be given to the works of Socrates, Plato, Aristotle, Augustine, and Aquinas. The views of these great thinkers have helped to shape the ways in which we see the world. This course is therefore recommended to everyone with an interest in our intellectual heritage. Open to all students.

PHIL 151-3 History of Philosophy II
A survey of philosophic thought from the Renaissance to the 20th Century. Special attention will be given to the works of Descartes, Leibniz, Spinoza, Locke, Berkeley, Hume, Kant, Hegel and Mill. The views of these great thinkers have helped to shape the ways in which we see the world. This course is therefore recommended to everyone with an
interest in our intellectual heritage. Open to all students.

PHIL 203-3 Metaphysics
An examination of central problems of metaphysics such as space and time, universals and particulars, substance, identity and individuation and personal identity. Prerequisite: one of PHIL 100, 150, 151.

PHIL 210-4 Natural Deductive Logic
This course studies a natural deductive system of propositional and quantificational logic, the first-order theory of identity and the first-order theory of relations. Topics include the metatheory of propositional logic and the application of formal theory to the assessment of natural language arguments.

PHIL 214-3 Axiomatic Logic
This course studies the metatheory of axiomatic propositional and quantificational logic. Topics include proof theory, the metatheory of propositional logic, the proof theory of first-order logic, first-order models, soundness and completeness. Prerequisite: one of PHIL 210, MACM 101, MATH 144, CMPT 205.

PHIL 220-3 Introduction to Social and Political Philosophy
An introduction to central problems of political and social philosophy; for example, the basis of political obligation, the proper limits of state power, the appropriate scope of individual liberty, and the nature of social justice. Sometimes the course will focus on the views of important political philosophers such as Plato, Aristotle, Hobbes, Locke, Rousseau, Burke, Bentham, Mill and Marx.

PHIL 231-3 Selected Topics
A specific topic, philosopher or philosophical work to be dealt with as occasion and demand warrant. (lecture/tutorial)

PHIL 232-3 Selected Topics
A specific topic, philosopher or philosophical work to be dealt with as occasion and demand warrant. (lecture/tutorial)

PHIL 240-3 Philosophy of Religion
A critical analysis of classic and contemporary arguments concerning the rationality of belief in God, and related issues.

PHIL 241-3 Philosophy in Literature
Philosophical themes in the writings of such authors as Voltaire, Turgenev, Dostoevski, Sartre, Camus, Conrad and Golding.

PHIL 242-3 Philosophy of Art
An examination of issues concerning the nature of works of art. The course will include a consideration of rival theories of art such as: art as expression, art as representation, and art as significant form. Theories of aesthetic criticism will be studied in relation to taste, personal experience, and truth.

PHIL 244-3 Introduction to the Philosophy of Natural and Social Science
An introduction to philosophical issues concerning the nature of science. Topics to be discussed include the distinction between science and pseudo-science, the nature of scientific method, the nature of explanation in the natural and social sciences, the phenomenon of scientific change, the relationship between scientific theory and observation, and the objectivity of social science.

PHIL 280-3 Introduction to Existentialism
A study of existentialist philosophers such as Kierkegaard, Nietzsche, Heidegger, Sartre, and Camus and a survey of precursors such as Kant and Hegel.

PHIL 300-3 Introduction to Philosophy
An introductory course specifically intended for students in other departments who have at least 60 semester hours credit. This course is more advanced than 100 and 200 division courses and is of interest to students not only in the humanities, but also in the natural and social sciences. Prerequisite: at least 60 semester hours credit. Normally, students with credit for PHIL 100 may not take this course for further credit. This course does not count towards the upper division requirements for a student pursuing a minor, major, or honors program in philosophy.

PHIL 301-3 Epistemology
An examination of central theories of knowledge such as realism, idealism, pragmatism, foundationalism, empiricism, and causal theories of knowledge. Other topics to be discussed may include, for example, the Gettier problem, scepticism, the nature of belief, reason, and sensation, the problem of induction, and foundationalism. Prerequisite: one of PHIL 100, 150, 151. PHIL 203.

PHIL 310-3 Moral Logic and Its Applications
Recommended: PHIL 210, 214, or an otherwise suitable background.

PHIL 314-3 Topics in Logic I
An examination of one or more topics such as: philosophical logic; deontic logic; the logic of knowledge and belief; the logic of preference; tense logic; foundations of set theory; recursive functions; the history of logic. Recommended: PHIL 210, 214, or an otherwise suitable background.

PHIL 320-3 Social and Political Philosophy
An examination of an issue or selection of issues in social and political philosophy. Contemporary or historical readings or a mixture of these will be used. Possible topics include: justice, the law and legal systems, sovereignty, power and authority, democracy, liberty and equality. Sometimes the course will focus on the views of historically important political philosophers, such as Plato, Aristotle, Hobbes, Locke, Rousseau, Burke, Bentham, Mill and Marx. Prerequisite: PHIL 120 or 220.

PHIL 321-3 Moral Issues and Theories
An advanced investigation of central issues and theories in moral philosophy. In any given term, the course may focus on a general theory or concept or concern, for example meta-ethics, utilitarianism, or theories of rights. Sometimes it will focus on a particular problem or problems, such as medical ethics, moral personhood, or free will and moral responsibility. Prerequisite: PHIL 120.

PHIL 331-3 Selected Topics (lecture)
Prerequisite: as stated by department at time of offering.

PHIL 332-3 Selected Topics (lecture)
Prerequisite: as stated by department at time of offering.

PHIL 333-3 Selected Topics (lecture)
Prerequisite: as stated by department at time of offering.

PHIL 341-3 Philosophy of Science
A study of the nature of scientific enquiry, classificatory systems, laws and theories, the role of observation in science, the demarcation between science and non-science, causality, the status of theoretical constructs, and teleological explanation. Prerequisite: PHIL 100 and 203, or COGS 200; PHIL 210 or 214.

PHIL 343-3 Philosophy of Mind
A study of theories of the mind, consciousness, and human action. Prerequisite: PHIL 100 and 203, or COGS 200.

PHIL 344-3 Philosophy of Language I
An introduction to the major philosophical theories of language. Topics to be considered include the relationship between language and mind, language and the world, language and society. Prerequisite: PHIL 100 and 203, or COGS 200.

PHIL 350-3 Ancient Philosophy
Prerequisite: PHIL 100 or 150.

PHIL 353-3 Locke and Berkeley
Prerequisite: PHIL 100 or 151.

PHIL 354-3 Descartes and Rationalism
Prerequisite: PHIL 100 or 151.

PHIL 355-3 Hume and Empiricism
Prerequisite: PHIL 100 or 151.

PHIL 421-4 Ethical Theories
A highly focussed, advanced examination of a selection of topics in normative ethics. Prerequisite: one of PHIL 120, 320, or 321.

PHIL 435-4 Selected Topics
A specific topic, philosopher or philosophical work to be dealt with as occasion and demand warrant. (lecture/tutorial) Prerequisite: two 300 level Philosophy courses.

PHIL 444-4 Philosophy of Language II
Advanced topics in recent work in philosophy of language, such as meaning, reference, speech acts, and language and thought. Prerequisite: PHIL 210 or 214.

PHIL 451-4 Kant
Prerequisite: at least one of PHIL 353, 354, 355.

PHIL 453-4 Background to Analytical Philosophy
The development of philosophical thought in the late 19th and early 20th centuries. Selections from the writings of F.H. Bradley, G. Frege, B. Russell, and the early Wittgenstein. Prerequisite: two 300 level PHIL courses.

PHIL 455-4 Contemporary Issues in Epistemology and Metaphysics
Prerequisite: two 300 level PHIL courses.

PHIL 467-4 Seminar II
(seminar) Prerequisite: two 300 level PHIL courses.

PHIL 477-5 Honors Tutorial I
Prerequisite: PHIL 477 is a requisite for all honors students, and must be taken in one of the last two semesters of the student's philosophy program. It must be taken concurrently with or prior to PHIL 478. At least eight weeks prior to the semester in which they wish to enrol in PHIL 477, honors students should obtain departmental approval of a proposed syllabus and arrange for faculty supervision of the course. Open only to honors students.

PHIL 478-5 Honors Tutorial II
Prerequisite: PHIL 478 is a requisite for all honors students, and must be taken in one of the last two semesters of the student's philosophy program. It must be taken concurrently with or consecutively to PHIL 477. At least eight weeks prior to the semester in which they wish to enrol in PHIL 478, honors students should obtain departmental approval of a proposed syllabus and arrange for faculty supervision of the course. Open only to honors students.

PHIL 802-5 Selected Topics in Epistemology
PHIL 803-5 Selected Topics in Metaphysics
PHIL 804-5 Selected Topics in Philosophy of Science
PHIL 805-5 Selected Topics in Philosophy of Mind
PHIL 806-5 Selected Topics in Philosophy of Language
PHIL 812-5 Selected Topics in Logic I
PHIL 813-5 Selected Topics in Logic II
PHIL 814-5 Selected Topics in Philosophy of Mathematics
PHIL 815-5 Selected Topics in Formal Studies
PHIL 822-5 Selected Topics in Normative Ethics
PHIL 823-5 Selected Topics Meta-ethics
PHIL 824-5 Selected Topics Moral Psychology
PHIL 825-5 Selected Topics in Social and Political Philosophy
PHIL 826-5 Selected Topics in Aesthetics

Simon Fraser University 2005 • 2006
Undergraduate courses are numbered 001-499
PHYS 100-3 Introduction to Physics
A course for students with relatively weak backgrounds in physics. Kinematics and dynamics; waves; optics; electricity and magnetism. Prerequisite: BC high school algebra 12 (or equivalent) or MATH 100 (may be taken concurrently). Students who have obtained a grade of C+ or better in BC high school Physics 12 (or its equivalent) or who have taken any further physics course normally may not take PHYS 100 for credit. Tutorials will be held in the open workshop format, i.e., unstructured periods each week when teaching assistants are available to answer questions and help with problem assignments.

PHYS 101-3 General Physics I
A general survey course for life science students. Kinematics and dynamics, including rotational motion; fluids, properties of matter and thermal physics. Prerequisite: BC Principles of Physics 12 or PHYS 100 or equivalent. This prerequisite may be waived, at the discretion of the department, as determined by the student's performance on a regularly scheduled PHYS 100 final exam. Please consult the physics advisor for further details. Corequisite: MATH 151 or MATH 154 must precede or be taken concurrently. Students are encouraged to take PHYS 130 at the same time as PHYS 102. Tutorials will be held in the open workshop format, i.e., unstructured periods each week when teaching assistants are available to answer questions and help with problem assignments.

PHYS 102-3 General Physics II
A general survey course for life science students. Waves and optics; electricity and magnetism; modern physics emphasizing radioactivity. Prerequisite: PHYS 101 or PHYS 120 or PHYS 140. Students with credit for PHYS 121, PHYS 126 or PHYS 141 may not take PHYS 102 for further credit. Recommended corequisite: MATH152, 155 or 158 should precede or be taken concurrently. Students are encouraged to take PHYS 130 at the same time as PHYS 102. Tutorials will be held in the open workshop format, i.e., unstructured periods each week when teaching assistants are available to answer questions and help with problem assignments.

PHYS 120-3 Mechanics and Modern Physics
A general calculus-based introduction to mechanics. Topics include translational and rotational motion, momentum, energy, gravitation, and selected topics in modern physics. Prerequisite: BC Principles of Physics 12 or PHYS 100 or equivalent. This prerequisite may be waived, at the discretion of the department, as determined by the student's performance on a regularly scheduled PHYS 100 final exam. Please consult the physics advisor for further details. Students with credit for PHYS 101, PHYS 125 or PHYS 140 may not take PHYS 120 for further credit. Corequisite: MATH 151 or 154 must precede or be taken concurrently. Students are encouraged to take PHYS 130 at the same time as PHYS 102. Tutorials will be held in the open workshop format, i.e., unstructured periods each week when teaching assistants are available to answer questions and help with problem assignments.

PHYS 121-3 Optics, Electricity and Magnetism
A general calculus-based introduction to electricity, magnetism and optics. Topics include electricity, magnetism, simple circuits, optics and topics from applied physics. Prerequisite: PHYS 120 or PHYS 125 or PHYS 140 (or PHYS 101 with a grade of A or B). Students with credit for PHYS 102, PHYS 126 or PHYS 141 may not take PHYS 121 for further credit. Corequisite: MATH 152 or 155 must precede or be taken concurrently. Tutorials will be held in the open workshop format, i.e., unstructured periods each week when teaching assistants are available to answer questions and help with problem assignments.

PHYS 125-3 Mechanics and Special Relativity
Newtonian mechanics and special relativity for students with good preparation in physics and mathematics. Topics include Newtonian particle mechanics, angular momentum, torque, conservation laws, gravitational motion, special relativity. Prerequisite: Greater than 85% in both BC Principles of Mathematics 12 and BC Principles of Physics 12, or a grade of A in PHYS 100, or equivalent. Corequisite: MATH 151 or MATH 154 must precede or be taken concurrently. Students with credit for PHYS 101, PHYS 120 or PHYS 140 may not take PHYS 125 for further credit.

PHYS 126-3 Electricity, Magnetism and Light
Electricity, magnetism, and the electromagnetic character of light for students with good preparation in physics and mathematics. Topics include waves, simple electrical circuits, electricity, magnetism, uniformity of electromagnetism in relativity, light as an electromagnetic wave, and photons. Prerequisite: PHYS 125 or a grade of A or better in either PHYS 102 or PHYS 140. Corequisite: MATH 152 or MATH 155 must precede or be taken concurrently. Students with credit for PHYS 102, PHYS 121 or PHYS 141 may not take PHYS 126 for further credit.

PHYS 130-2 General Physics Laboratory
Elementary experiments in electricity, magnetism, and heat that are designed to augment the general survey course. Prerequisite: PHYS 102 should be taken concurrently or may precede; or by permission of the department. Students with credit for PHYS 131 or PHYS 141 may not take PHYS 130 for further credit.

PHYS 131-2 Physics Laboratory I
Elementary experiments in optics, electricity, and mechanics that are designed to augment the general survey courses. Prerequisite: PHYS 121 or 126 should be taken concurrently or may precede; or by permission of the department. Students with credit for PHYS 130 or PHYS 141 may not take PHYS 131 for further credit.

PHYS 140-4 Studio Physics—Mechanics and Modern Physics
A general calculus-based introduction to mechanics taught in an integrated lecture-laboratory environment where students learn collaboratively through experimentation and modeling. Topics include translational and rotational motion, momentum, energy, gravitation, and selected topics in modern physics. Prerequisite: BC Principles of Physics 12, or equivalent. Corequisite: MATH 151 or MATH 154 must precede or be taken concurrently. Students with credit for PHYS 125 or PHYS 120 or PHYS 101 may not take PHYS 140 for further credit. Students with credit for both PHYS 140 and PHYS 141 are exempt from PHYS 131.

PHYS 141-4 Studio Physics—Optics, Electricity and Magnetism
A general calculus-based introduction to electricity, magnetism and optics taught in an integrated lecture-laboratory environment where students learn collaboratively through experimentation and modeling. Topics include electricity, magnetism, simple circuits, optics and topics from applied physics. Prerequisite: PHYS 140. Corequisite: MATH 152 or MATH 155 must precede or be taken concurrently. Students with credit for PHYS 126 or PHYS 121 or PHYS 102 may not take PHYS 141 for further credit. Students with credit for both PHYS 140 and PHYS 141 are exempt from PHYS 131.

PHYS 190-3 Introduction to Astronomy
Historical astronomy, telescopes, the sun and the solar system, stellar evolution, galaxies, cosmology.

PHYS 211-3 Intermediate Mechanics
An intermediate mechanics course covering kinematics, dynamics, free, forced and damped oscillations, non-inertial reference frames, central forces and orbits, rigid body motion. Prerequisite: PHYS 126 or PHYS 121. Students may not count both PHYS 211 and MATH 263 for credit. Corequisite: MATH 251 must precede or be taken concurrently.

PHYS 221-3 Intermediate Electricity and Magnetism
Electrostatics, magnetostatics, capacitance, inductance, DC and AC circuits, concepts of electric and magnetic fields, Maxwell’s equations. Prerequisite: PHYS 126 or PHYS 121, MATH 251. Recommended corequisite: MATH 252.

PHYS 231-3 Physics Laboratory II
Introductory physics laboratory with experiments chosen from among mechanisms, heat, optics, electricity, magnetism, properties of matter, atomic and nuclear physics, along with lectures on the use of computers for data acquisition and data analysis in the physics laboratory. Prerequisite: PHYS 131 or PHYS 130. Students who have successfully completed PHYS 234 may not receive additional credit for this course.

PHYS 233-2 Physics Laboratory III
Experiments chosen from among mechanics, heat, optics, electricity, magnetism, properties of matter, atomic and nuclear physics. Engineering Science students will do a selected set of experiments. Prerequisite: PHYS 231.

PHYS 285-3 Introduction to Relativity/Quantum Mechanics
Special relativity, including relativistic kinematics and dynamics; tests of relativity; matter waves and early quantum models; wave mechanics and its application to molecular, atomic and subatomic systems. Prerequisite: PHYS 126 or PHYS 121, MATH 152.

PHYS 324-3 Electromagnetics
Electromagnetics, magnetostatics, electromagnetic waves, transmission lines, waveguides, antennas and radiating systems. Prerequisite: PHYS 221, MATH 252.

PHYS 326-3 Electronics and Instrumentation
Circuits and circuit theory, passive and active devices, amplifiers, feedback, modern measurement techniques and instrumentation. Prerequisite: PHYS 221. Corequisite: PHYS 331 laboratory must be taken concurrently.

PHYS 331-3 Electronics Laboratory
Experiments in electronics, including AC circuits, filters, resonance, diodes, transistors, amplifiers, feedback, oscillators, operational amplifiers, integrated circuits, digital circuits. Prerequisite: PHYS 231, Corequisite: PHYS 326.
PHYS 335-0 Practicum I
This is the first semester of work experience in a co-operative education program available to students who are studying physics or related areas, such as biophysics, chemical physics or mathematical physics. Prerequisite: completion of 30 hours credit, with a minimum GPA of 2.75. Students should apply to the department at least one semester in advance. A course fee is required. This course is evaluated on a pass/withdrawal basis.

PHYS 336-0 Practicum II
This is the second semester of work experience in a co-operative education program available to students who are studying physics or related areas, such as biophysics, chemical physics or mathematical physics. Prerequisite: PHYS 335 followed by 12 hours of credit. A minimum cumulative GPA of 2.75. Students should apply to the department at least one semester in advance. A course fee is required. This course is evaluated on a pass/withdrawal basis.

PHYS 344-3 Thermal Physics
Heat, temperature, heat transfer, kinetic theory, laws of thermodynamics, entropy, heat engines, applications of thermodynamics to special systems, phase transitions. Prerequisite: PHYS 126 or PHYS 121, MATH 251.

PHYS 346-3 Energy and the Environment
The physical principles and limitations of renewable energy source utilization and energy conversion. A quantitative introduction to energy conversion and storage systems, including solar power and heating; wind, tidal, geothermal, hydroelectric and nuclear power, hydrogen technology, electrical and mechanical energy storage. Prerequisite: CHEM 120 or 121, PHYS 102 or 121 or 126, MATH 155 or 152.

PHYS 355-3 Optics
Geometrical and optical physics, interference, diffraction, polarization, coherence, spectra, optical instruments. Prerequisite: PHYS 221 and MATH 252.

PHYS 365-3 Semiconductor Device Physics
Structure and properties of semiconductors, semiconductor theory, theory and operation of semiconductor devices, semiconductor device technology. Prerequisite: PHYS 221. Recommended: PHYS 285.

PHYS 380-3 Introduction to Subatomic Physics
Comprehensive overview of nuclear and particle physics with emphasis on concepts: the constituents of matter and the fundamental forces; properties and structure of nuclei and the nucleus; the Standard Model; experimental techniques. Prerequisite: PHYS 285 or CHEM 260 or NUSC 341.

PHYS 384-3 Methods of Theoretical Physics I
Applications of mathematical methods in physics, differential equations of physics, eigenvalue problems, solutions to wave equations. Prerequisite: PHYS 211 (or MATH 283), PHYS 221, MATH 252, MATH 310.

PHYS 385-3 Quantum Physics
Postulates of quantum theory, atomic models, waves and particles, Schroedinger equation, free and bound states, the hydrogen atom, structure, spectra and applications. Prerequisite: PHYS 211, 221, 285, MATH 252; PHYS 285 may be waived by permission of the department. Engineering science students are exempt from the PHYS 285 prerequisite. Corequisite: MATH 310 must precede or be taken concurrently.

PHYS 390-3 Introduction to Astrophysics
Characteristics of stars and their evolution, thermodynamics of stellar interior, origin of the elements, galaxies, cosmology, origin of the planets. Prerequisite: PHYS 211 and either CHEM 120 or 121.

PHYS 395-3 Computational Physics
Computer based approaches to the solution of complex physical problems. A partial list of topics includes: Monte-Carlo and molecular dynamics techniques applied to thermal properties of materials; dynamical behavior of conservative and dissipative systems, including chaotic motion; methods for ground state determination and optimization, including Newton-Raphson, simulated annealing, neural nets, and genetic algorithms; the analysis of numerical data; and the use of relevant numerical libraries. Prerequisite: MATH 310, PHYS 211, CMPT 101 or 102. Recommended: PHYS 344 (or PHYS 244) or equivalent.

PHYS 415-3 Quantum Mechanics
Foundations of quantum mechanics, Schroedinger equation, perturbation theory, angular momentum, applications of electromagnetic waves. Prerequisite: PHYS 285 and either PHYS 384 or MATH 314 and 419.

PHYS 425-3 Electromagnetic Theory
Electrostatics and boundary value problems, magnetic fields, Maxwell equations and their relativistic formulation, radiation and propagation of electromagnetic waves. Prerequisite: PHYS 285, 384 (or PHYS 221 and MATH 314).

PHYS 430-5 Digital Electronics and Interfacing
Digital logic design with particular apparatus. Construction and use of interface devices for various laboratory experiments. Computer data reduction. Prerequisite: PHYS 326 and 331; or permission of the instructor.

PHYS 431-4 Advanced Physics Laboratory I
Advanced experiments in Physics. May include special projects. Prerequisite: PHYS 331 and 385. Recommended: PHYS 332.

PHYS 432-5 Undergraduate Honors Thesis
Undergraduate research and preparation of an honors thesis. Prerequisite: PHYS 335 or permission of the department. Students must obtain agreement of a faculty member willing to supervise the project, and submit the project to the physics department for approval at least two months prior to registering for the course. The research must be done during the semester in which the student is registered for the course, and may not be part of a co-op practicum. The course will be graded on the basis of the honors thesis, which must be submitted before the end of the semester. Prerequisite: all students interested in taking this course must consult with their faculty supervisor regarding prerequisites; normally requires PHYS 431.

PHYS 435-0 Practicum III
This is the third semester of work experience in a co-operative education program available to students who are studying physics or related areas, such as biophysics, chemical physics or mathematical physics. Prerequisite: PHYS 336 and 60 hours of credit with a minimum cumulative GPA of 2.75. Students should apply to the department at least one semester in advance. A course fee is required. This course is evaluated on a P/W basis.

PHYS 436-0 Practicum IV
This is the fourth semester of work experience in a co-operative education program available to students who are studying physics or related areas, such as biophysics, chemical physics or mathematical physics. Prerequisite: PHYS 435 followed by 12 hours of credit. A minimum cumulative GPA of 2.75. Students should apply to the department at least one semester in advance. A course fee is required. This course is evaluated on a P/W basis.

PHYS 437-0 Practicum V
This is an optional fifth semester of work experience in a co-operative education program available to students who are studying physics or related areas such as biophysics, chemical physics or mathematical physics. Prerequisite: PHYS 436 and a minimum cumulative GPA of 2.75. Students should apply to the department at least one semester in advance. A course fee is required. This course is evaluated on a pass/withdrawal basis.

PHYS 445-3 Statistical Physics
Postulates of statistical mechanics, partition functions, applications to gases, paramagnetism and equilibrium. Quantum statistics and applications. Prerequisite: PHYS 344 or CHEM 360. Recommended: PHYS 385.

PHYS 455-3 Applied Optics
Interaction between light and matter, population inversion, stimulated emission, optical resonators, temporal and spatial coherence, gain and power output of laser oscillators. Selected topics in applied optics such as crystal optics, light modulation, fibre optics, non-linear optics and opto-electronic devices and components. Applications of lasers. Prerequisite: PHYS 335 and 385.

PHYS 465-3 Solid State Physics
Crystal structure, lattice vibrations and thermal properties of solids, free electron model, band theory, applications. Prerequisite: PHYS 385.

PHYS 484-3 Nonlinear Physics
Nonlinear mechanics, nonlinear lattice dynamics, competition phenomena, applications in optics and chemistry, forced oscillations, chaos. Prerequisite: PHYS 384 or permission of the department.

PHYS 490-3 General Relativity and Gravitation
Gravity and space-time, Einstein’s equations and their solution, tests of relativity, black holes, stellar equilibrium and collapse, cosmological models. Prerequisite: PHYS 285 or MATH 471; PHYS 384.

PHYS 492-3 Special Topics in Physics
Studies in areas not included within the undergraduate course offerings of the Department of Physics. Prerequisite: permission of the department.

PHYS 493-3 Special Topics in Physics
Studies in areas not included within the undergraduate course offerings of the Department of Physics. Prerequisite: permission of the department.

PHYS 801-2 Student Seminar
Discussion of recent developments in physics, based on student seminars. Attendance is required for all students proceeding toward MSc or PhD degrees in physics. Course offered regularly.

PHYS 810-3 Fundamental Quantum Mechanics
Review of foundations of quantum mechanics, states and observables, measurement theory, angular momentum, time reversal, stationary and time dependent perturbation theory, variational methods. Course offered regularly. Prerequisite: PHYS 415, or equivalent.

PHYS 811-3 Advanced Topics in Quantum Mechanics
A continuation of PHYS 810: scattering theory, spin statistics, creation and annihilation operators, diagrammatic perturbation theory, relativistic QM. Prerequisite: PHYS 810 or equivalent.

PHYS 812-3 Introduction to Quantum Field Theory
Lorentz group and representations, Dirac and Klein-Gordon Equations, Maxwell’s equations and
PHYS 819-3 Special Topics I
PHYS 822-3 Special Topics II
PHYS 885-2 Special Topics V
PHYS 888-6 MSc Thesis
PHYS 899-5 PhD Thesis

Political Science POL
Faculty of Arts and Social Sciences

POL 100-3 Introduction to Politics and Government
A comprehensive introduction to the study of politics and government for both political science majors and students specializing in other disciplines. The course will explore the major concepts, methods, approaches and issues in political science, as well as the primary components of government structure and the political process.

POL 151-3 The Administration of Justice
The development of laws and their application to the citizen and social groups. Special consideration will be given to civil liberties.

POL 201-3 Research Methods in Political Science
An introduction to quantitative research techniques in political science. Prerequisite: POL 100 or 151 or permission of department. Students with credit for POL 213 or SA 255 may not take POL 201 for further credit.

POL 210-3 Introduction to Political Philosophy
An examination of concepts presented by the major political thinkers of the western world. The course surveys those ideas which remain at the root of our political institutions, practices and ideas against a background of the periods in which they were expressed. Prerequisite: POL 100 or permission of department.

POL 211-3 Politics and Ethics
An examination of selected contemporary political controversies that raise fundamental ethical issues. Discussion will be informed by contending perspectives in modern political philosophy. Prerequisite: POL 100 or permission of department.

POL 221-3 Introduction to Canadian Government
An introduction to the institutional order and political structure of the Canadian state. The course will include topics such as the constitution, parliament, cabinet, judiciary, public service and federal-provincial relations. Prerequisite: POL 100 or 151 or permission of department.

POL 222-3 Introduction to Canadian Politics
An introduction to the social and participatory basis of Canadian politics, covering topics such as political culture, regionalism and other political divisions, political parties, elections, interest groups and new social movements. Prerequisite: POL 100 or 151 or permission of department.

POL 223-3 Canadian Political Economy
An introductory study of Canada’s political economy, stressing the interrelated nature of Canada’s economic and political life. The course focuses on current economic problems and policies, taking into account the geographical, historical and political environments. Topics include the resource and industrial structures, research and development, the public sector, fiscal and monetary policy, the role of the state, trade and foreign ownership, energy, regional disparity, corporate concentration and the political economy of federalism. This course is identical to CNS 280 and students cannot take both courses for credit. Recommended: POL 100.

POL 231-3 Intro-Comparative Government and Politics
An introduction to political processes and structures in comparative perspective. Prerequisite: POL 100 or permission of department.

POL 232-3 US Politics
An examination of the American political system, including the presidency, the congress, the courts, the bureaucracy and the party system. Prerequisite: POL 100 or permission of the department. Students who have credit for POL 332 may not take POL 232 for further credit.

POL 241-3 Introduction to International Politics
Theory and practice of international politics, diplomacy, hot war, cold war, alliances and the role of leaders. Prerequisite: POL 100 or permission of department.

POL 251-3 Introduction to Canadian Public Administration
An introduction to the basic elements of public administration in the government of Canada, including the organization of the public service, planning and financial administration, personnel administration, collective bargaining and administrative regulation. Prerequisite: POL 100 or 151 or permission of department.

POL 252-3 Local Democracy and Governance
The political process in the urban municipality from a comparative perspective. Prerequisite: POL 100 or 151 or permission of department.

POL 290-0 Political Science Practicum I
First semester of work experience in the Political Science Co-operative Education program. Students should apply to the Faculty of Arts co-op co-ordinator by the end of the third week of the preceding semester. Prerequisite: 30 credit hours with a CGPA of 3.0. Transfer students must complete at least 15 credit hours at Simon Fraser University.

POL 291-0 Political Science Practicum II
Second semester of work experience in the Political Science Co-operative Education Program. Students should apply to the Faculty of Arts co-op co-ordinator by the end of the third week of the preceding semester. Prerequisite: POL 290; 45 credit hours with a CGPA of 3.0.

POL 301-0 Political Science Practicum III
Third semester of work experience in the Political Science Co-operative Education program. Students should apply to the Faculty of Arts co-op co-ordinator by the end of the third week of the preceding semester. Prerequisite: POL 291, 60 credit hours, and a minimum CGPA of 3.0.

POL 312-4 Modern Political Thought
A discussion of selected political philosophers in the western tradition from Hobbes to Rawls. (lecture/seminar) Prerequisite: POL 210 or equivalent, or permission of the department.

POL 313-4 Political Ideologies
Discussion of the major political ideologies in western political systems: liberalism, conservatism, the new right, socialism and social democracy, feminism and environmentalism. Emphasis is placed on their conceptual foundations and contemporary expressions. (lecture/seminar) Prerequisite: POL 210 or 312 or permission of the department.

POL 314-4 Theory and Explanation in Political Science
A discussion of issues in the philosophy of the social sciences which are relevant to the study of politics and a critical evaluation of contemporary approaches to political inquiry, including empirical theory, rational choice theory and hermeneutics. Prerequisite: six lower division credits in political science or permission of the department.
POL 315-4 Quantitative Methods in Political Science
An examination of the principal methods of empirical research in political science. This course is equivalent to SA 355. Prerequisite: six lower division credits in political science or permission of the department.

POL 319-4 Selected Topics in Political Theory (lecture) Prerequisite: six lower division credits in political science or permission of the department.

POL 321-4 The Canadian Federal System
Development of the federal system including topics such as the division of powers, parties, federal-provincial relations and theories of federalism. Prerequisite: six lower division credits in political science or permission of the department.

POL 322-4 Canadian Political Parties
Development of the Canadian party system. Party ideologies, organization, campaigns and elections. Prerequisite: six lower division credits in political science or permission of the department.

POL 323-4 Provincial Government and Politics
An examination of the historical development of the provinces and the role they have played in Confederation. The course surveys the evolution of provincial economies, societies and governments in order to understand the contemporary issues and problems faced by Canada's provincial states. Prerequisite: six lower division credits in political science or permission of the department.

POL 324-4 The Canadian Constitution
An analysis of the Canadian constitution from a theoretical and comparative perspective. Amendment, entrenchment, civil rights. Prerequisite: six lower division credits in political science or permission of the department.

POL 327-4 Globalization and the Canadian State
In an era of globalization, what scope remains for national politics? Does globalization lead to a deficit of democracy? This course examines the challenge that globalization poses for the Canadian political system. Emphasis is placed on globalization's impact on the organization, activities and role of Canadian State. Prerequisite: six lower division credits in political science or permission of the department.

POL 329-4 Selected Topics in Canadian Government and Politics (lecture) Prerequisite: six lower division credits in political science or permission of the department.

POL 333-4 Soviet and Post-Soviet Political System
A comprehensive introduction to the evolution of the Soviet political system and the post-Soviet successor states. Topics examined will include the factors responsible for the disintegration of the USSR, the structure and dynamics of the Russian political system and the problems of post-Communism through the Eurasian region. Prerequisite: six lower division credits in political science or permission of the department.

POL 334-4 East European Political Systems
A comprehensive introduction to the political organization and political dynamics of the East European states including an examination of the various contemporary issues and problems which have influenced the political development of those countries. Prerequisite: six lower division credits in political science or permission of the department.

POL 335-4 Government and Politics: People's Republic of China I
An examination of the political development of China in modern times with special emphasis on political culture and its relationship to political institutions, political processes and political behavior. Prerequisite: six lower division credits in political science or permission of the department.

POL 336-4 Government and Politics: People's Republic of China II
An analysis of China's current constitutional structure, modernization program, post cultural revolution period, and domestic and international affairs. Emphasis will be placed on explanations of political change and perspectives for future development. Prerequisite: six lower division credits in political science or permission of the department.

POL 337-4 Government and Politics: Latin American Nations I
An examination of the political systems of selected Latin American nations, including an analysis of political culture, political economy, political institutions, interest groups and both formal and informal political processes. Prerequisite: six lower division credits in political science or permission of the department. This course is identical to LAS 337 and students cannot take both courses for credit.

POL 339-4 Selected Topics in Comparative Government and Politics (lecture) Prerequisite: six lower division credits in political science or permission of the department.

POL 341-4 International Integration and Regional Association
Theories of integration, and the empirical analysis of selected regional associations, historical and contemporary. Imperialism, federation, association. Prerequisite: six lower division credits in political science or permission of the department.

POL 342-4 Relations Between Developed and Developing Nations
Problems arising from the disparities in power and wealth between the highly industrialized countries of Europe and North America, and the under-industrialized countries of Asia, Africa and Latin America. Prerequisite: six lower division credits in political science or permission of the department.

POL 343-4 Global Political Economy
An introduction to the study of the international political economy, with an emphasis on the interaction between the state and markets, and the basic political-institutional relationships of trade, money and finance, international investment, foreign debt and foreign aid. Prerequisite: six lower division credits in political science or permission of the department.

POL 344-4 Public International Law
Sovereignty, nationality, jurisdiction, arbitration. Examination of selected cases exemplifying present trends in the international legal order. Prerequisite: six lower division credits in political science or permission of the department.

POL 345-4 The Nation-State and Multinational Corporation
A study of relations between multinational enterprise and national interests in developed and developing countries. Prerequisite: six lower division credits in political science or permission of the department.

POL 346-4 International Organizations
An examination of the structures and processes and the main substantive decisions of the United Nations and related international organizations. Based upon in-depth study of United Nations Security Council, General Assembly, Secretariat-general and Secretariat and their constitutional and political interactions since 1945, with special attention to the theory and practice of international organization advanced by the principal Western countries, the Soviet Union and Soviet bloc, the People's Republic of China and leading Third World countries. Prerequisite: six lower division credits in political science or permission of the department.

POL 347-4 Introduction to Canadian Foreign Policy
An overview of Canadian foreign policy post World War II. Various perspectives are discussed including realism, economic nationalism, liberal internationalism and political economy/dependency analysis. A variety of analytical perspectives are used to examine issue-areas such as foreign trade including the role of NAFTA, defence policy and alliance relations, foreign investment, foreign aid, immigration policy, energy policy and the role of domestic political factors in foreign policy decision-making. Prerequisite: six lower division credits in political science or permission of the department.

POL 348-4 Theories of War, Peace and Conflict Resolution
Examines the origins and causes of several major conflicts during the last century. This course reviews various theories on the causes of conflict and war in the international system. It also examines the techniques of preventive diplomacy, peacekeeping, crisis management and coercive diplomacy as they have been used to try to forestall open warfare and maximize the opportunities for peaceful change and the negotiated resolution of international disputes. Both documentary and feature films will be used to illustrate many types of conflict and warfare in the international system. Course simulations, when employed, will concentrate on the problems and risks that are involved in international efforts to contain and reverse the proliferation of weapons of mass destruction. (lecture/seminar/lab) Prerequisite: six lower division credits in political science or permission of the department.

POL 349-4 Selected Topics in International Relations
Prerequisite: six lower division credits in political science or permission of the department.

POL 351-4 The Public Policy Process
Combines a practical analysis of the structures and processes surrounding contemporary policy issues and a theoretical analysis of alternative approaches to the study of public issues and a theoretical analysis of alternative approaches to the study of public policy-making. Prerequisite: six lower division credits in political science or permission of the department.

POL 352-4 Urban and Local Governance in Canada
A comparative study of local government in Vancouver, Winnipeg and Toronto. The non partisan tradition and interest groups. Relations with other levels of government. Prerequisite: six lower division credits in political science or permission of the department.

POL 353-4 Public Sector Management
A detailed analysis of administrative planning in the public sector, particularly as it relates to the Canadian government. The significance of financial management and personnel management to the overall planning will be emphasized. Prerequisite: six lower division credits in political science or permission of the department.

POL 354-4 Comparative Metropolitan Governance
A comparative analysis of regional metropolitan governance in Canada and selected other jurisdictions (such as the USA, UK, etc.). The course involves an examination of major policy dilemmas in urban development, and of the local, regional and senior intergovernmental relations within which much of the public policy making in metropolitan settings takes place. Prerequisite: six lower division credits in political science or permission of the department.
POL 355-4 Governing Instruments
Examines and compares the various means at the disposal of government for implementing policy options, including regulation, the creation or privatization of credits, the delivery or contracting out of services, taxation and tax expenditures, and any other administrative or legislative processes that governments in Canada and in similar countries have used to manage the economy or effect social change. Prerequisite: six lower division credits in political science or permission of the department.

POL 356-4 The Political Economy of Labour
Examines the ways in which economic and political forces are constantly changing the nature of work. The focus will be on both paid and unpaid labor; the problems of inequality; and the ways in which workers have organized to protect their interests. The course material will deal mainly, although not exclusively, with the political economy of labor in contemporary Canada. Prerequisite: six lower division credits in political science or permission of the department.

POL 381-4 Politics and Government of Japan I
The political system of Japan, including an analysis of political culture, political institutions, political behavior and both formal and informal political processes. Emphasis will be on the pre-World War II political development of Japan. Prerequisite: six lower division credits in political science or permission of the department.

POL 401-0 Political Science Practicum IV
Fourth semester of work experience in the Political Science Co-operative Education Program. Students should apply to the Faculty of Arts co-op co-ordinator by the end of the third week of the preceding semester. Prerequisite: POL 301, 75 credit hours, and a minimum CGPA of 3.0.

POL 411-4 Normative Political Theory
Advanced seminar examining selected themes, debates and texts in recent normative political philosophy, with an emphasis on contemporary democratic theory (seminar). Prerequisite: POL 210, 312 or 313; or permission of the department.

POL 414-4 Theories of Political Development
An examination of theories of the social and economic forces which challenge the adequacy of political institutions and political skills. The ideas of B. Moore, Jr., Huntington, Apter, Friedrich and Gurr. Prerequisite: eight upper division credits in political science or permission of the department.

POL 415-4 The Liberal Tradition
A critical examination of the development of liberalism from classical liberalism (e.g. John Locke) to contemporary conflict between revisionist and neo-classical or libertarian currents. Prerequisite: eight upper division credits in political science or permission of the department.

POL 416-4 Feminist Social and Political Thought
This course will examine the works of major feminist thinkers and the problems of developing feminist theory. Prerequisite: eight upper division credits in political science or permission of the department.

POL 417-4 Human Rights Theories
This course introduces students to the problems involved in the assertion of universal moral standards across political and cultural divides. These issues will be explored at a theoretical level, and in the context of specific human rights controversies. Prerequisite: eight upper division credits in political science or permission of the department. Recommended: PHIL 220 or 320.

POL 418-4 Selected Topics in Political Theory
(seminar) Prerequisite: eight upper division credits in political science or permission of the department.

POL 419-4 Selected Topics in Political Theory II
Prerequisite: eight upper division credits in political science or permission of the department.

POL 422-4 Canadian International Security Relations
The course traces the evolution of Canadian thinking on national international security issues through an examination of pre-World War II isolationism, elite attitudes during the Cold War, the formative period of NATO, as well as Canadian involvement in the Korean and Indochina conflicts. More recent policies concerning ALCM testings, NORAD, and nuclear non-proliferation will also be explored in detail. Prerequisite: eight upper division credits in political science or permission of the department.

POL 423-4 British Columbia Government and Politics
The legislature, political parties, pressure groups, relations with other governments, and other aspects of the policy process. Prerequisite: eight upper division credits in political science or permission of the department.

POL 424-4 Quebec Government and Politics
An examination of the political culture and institutions in the province of Quebec with particular emphasis on the period since 1960. Prerequisite: eight upper division credits in political science or permission of the department.

POL 426-4 Canadian Political Behavior
The study of political attitudes and behavior in Canada. Topics will include political culture, public opinion, elections and voting behavior. Prerequisite: eight upper division credits in political science or permission of the department.

POL 428-4 Selected Topics in Canadian Government and Politics I
(seminar) Prerequisite: eight upper division credits in political science or permission of the department.

POL 429-4 Selected Topics in Canadian Government and Politics II
Prerequisite: eight upper division credits in political science or permission of the department.

POL 431-4 Comparative Western European Systems
An advanced examination of the political life of Western European democratic systems, with special attention to issues of comparative and theoretical import, such as the causes and consequences of various types of party systems and the determinants of democratic stability. Prerequisite: eight upper division credits in political science or permission of the department.

POL 432-4 Comparative Communist and Post-Communist Political Systems
A comparative examination of the emergence and development of communist political systems and also the impact of that experience on the various post-communist successor states undergoing the process of regime transition in Eurasia and eastern Europe. The course will focus on theoretical issues pertaining to the topics considered, and case studies of specific countries. Prerequisite: eight upper division credits in political science or permission of the department.

POL 434-4 Comparative Developing Systems
A survey of political problems in selected Third World countries. Topics covered will include: the preconditions for democracy, the role of military governments, possibilities of revolution, and the meaning of economic dependency influences on the political systems of developing countries. Prerequisite: eight upper division credits in political science or permission of the department.

POL 435-4 Comparative Federal Systems
Comparative analysis of federations such as the Canadian, American, West German, Yugoslavian, Soviet, Indian and Swiss. Prerequisite: eight upper division credits in political science or permission of the department.

POL 436-4 Elections, Parties and Governments in Comparative Perspective
An examination of the processes by which governments are created, maintained, and destroyed in democratic systems. The effects of different regime types, electoral arrangements, and party systems will be highlighted. Prerequisite: eight upper division credits in political science or permission of the department.

POL 438-4 Selected Topics in Comparative Government and Politics I
(seminar) Prerequisite: eight upper division credits in political science or permission of the department.

POL 439-4 Selected Topics in Comparative Government and Politics II
(seminar) Prerequisite: eight upper division credits in political science or permission of the department.

POL 440-4 Special Topics: Latin American International Relations
A multidisciplinary study of bilateral issues between Latin America and a specific country or region, e.g. US and Latin America, the Pacific Rim. Historical, economic, and ideological perspectives as well as topics related to business, foreign aid, and immigration will be emphasized. Prerequisite: eight upper division credits in political science or LAS 200 or permission of department. This course (POL 440) is identical to POL 340, LAS 311, 411 and 440, and students cannot take more than one of these courses for credit.

POL 441-4 Comparative Foreign Relations: Selected Political Systems
A comparison of the foreign policies of selected political systems. Subjects treated include the domestic and foreign determinants of foreign policy decisions, the mobilization and application of resources to influence international politics, and the consequences of foreign policy decisions and strategies. Prerequisite: eight upper division credits in political science or permission of the department.

POL 442-4 The Politics of International Trade
Focuses on the political economy of international trade relations. Subjects of interest may include the evolution of the global trade regime from the GATT to the WTO, regional trade groupings such as the European union and NAFTA, problems of less developed countries and transition economies, and the growing role of civil society in international trade. Prerequisite: eight upper division credit hours in political science or permission of the department.

POL 443-4 Nuclear Strategy, Arms Control and International Security
Provides an overview of the evolution of US and Soviet strategic policies since World War II. The political and doctrinal bases of national strategic debates are closely examined, as are the various obstacles to a more stable international arms control regime for nuclear weapons. Prerequisite: eight upper division credits in political science or permission of the department.

POL 444-4 Politics and Foreign Policy of the European Union
This course offers a comparative foreign policy analysis of EEC members, as well as an introduction to European political co-operation. Focuses on institutions of the EEC, including the Commission, Council of Ministers, European Council and European Parliament. Provides an analysis of both internal EC issues such as Common Agricultural Policy and

Graduate courses are numbered 500-999

Simon Fraser University 2005 - 2006
European Monetary Union and external issues such as trade and security relations. Prerequisite: eight upper division credits in political science or permission of the department.

POL 445-4 American Foreign Policy: Processes and Issues
Examines U.S. foreign policy in the post World War II era. Topics to be covered will include the formation of foreign policy, 20th century American security issues, alliance relations, crisis management and international economic relations. Prerequisite: eight upper division credits in political science or permission of the department.

POL 446-4 International Relations in East Asia
An overview and analysis of international relations in East Asia. Prerequisite: eight upper division credits in political science or permission of the department.

POL 447-4 Theories of International Political Economy
An examination of the major theories of international political economy, and their application to such issues as the politics of trade, aid, monetary relations, and transnational corporations. Prerequisite: eight upper division credits in political science or permission of the department.

POL 448-4 Selected Topics in International Relations (seminar)
Prerequisite: eight upper division credits in political science or permission of the department.

POL 449-4 Selected Topics in International Relations II (seminar)
Prerequisite: eight upper division credits in political science or permission of the department.

POL 450-4 Globalization and Regional Politics in Latin America
This seminar, designed for advanced undergraduate and graduate students, will discuss contemporary political issues arising from aspects of globalization, such as free trade agreements, international migration policies, and political reactions to the global media within particular regions of the world. The seminar will expose students to primary data research, and involve the development of a course project in line with their particular interests. Prerequisite: 30 credit hours. POL 450 and LAS 450 are identical and students cannot take both courses for credit.

POL 451-4 Public Policy Analysis
Examines the conceptual, philosophical and practical aspects of public policy analysis as it is conducted in government, universities, interest groups and policy research institutes. Specific attention is paid to the question of the role of policy research in the process of public policy making and the design of government programs and services. Prerequisite: eight upper division credits in political science or permission of the department.

POL 454-4 Urban Public Policy Making
This course will link differing theoretical perspectives and concepts currently used in public policy studies to an understanding of public policy making in urban governance. Prerequisite: eight upper division credits in political science or permission of the department.

POL 455-4 Issues in Economic and Social Policy
A practical analysis of the evaluation and the adjustment of public policies and programs designed and implemented to address long-standing social and economic concerns. The course will look at governmental and non-governmental actors involved in the processes of policy evaluation. Prerequisite: eight upper division credits in political science or permission of the department.

POL 457-4 Controversies in Policy Innovation and Design
This course is intended to offer students an opportunity to reflect upon the challenges posed by the development of new technologies, the emergence of new movements and the uncertainties attendant to social and political conflicts associated with policy issues about which experts differ in significant ways. Prerequisite: eight upper division credits in political science or permission of the department.

POL 458-4 ST-Selected Topics in Local and Urban Governance
Prerequisite: eight upper division credits in political science or permission of the department.

POL 459-4 Selected Topics in Governance
Prerequisite: eight upper division credits in political science or permission of the department.

POL 481-4 Ethnic Politics and National Identity
Examines the impact of ethnicity on the dynamics and organization of political systems, including the impact of ethnic diversity on modes of political representation, the formation of public policy, and the quest for political stability and national identity. Prerequisite: eight upper division credits in political science or permission of the department.

POL 483-4 Political Economy of Latin American Development
This is a survey course which introduces students to the various theoretical approaches which have been used since the 1950s to understand the political economy of Latin American development. It deals with some of the classic theories of modernization, dependency, world systems, and modes of production analysis. The last unit of the course is devoted to the most contemporary issues of Latin American development, such as the agrarian question, women and development, problems of urbanization and the informal sector. Prerequisite: eight upper division credits in political science or LAS 200 or permission of the department. This course (POL 483) is identical to POL 383, LAS 318, 428, SA 328 and 428, and students cannot take more than one of these courses for further credit.

POL 497-4 Directed Practice in Political Science
This course involves interpretation of, and expansion on, practical experience in political life, under the supervision of a single faculty member. Students registering in the course must have their program of practical experience and academic writing assignments approved by both the supervisor and the department's undergraduate committee prior to registration. Prerequisite: Permission of the department; CGPA of 3.0; upper division GPA of 3.33. Students may count only one POL 497 towards meeting their upper division political science requirements. This course is available only for POL majors.

POL 498-4 Directed Readings in Political Science
Directed readings in a selected field of study under the direction of a single faculty member. A paper will be required. Students registering in this course must have their program of readings approved (by the supervising instructor and the undergraduate studies committee) prior to registration. Prerequisite: permission of the department. Students may count only one readings course as credit towards their upper division political science requirements.

POL 499-5 Honors Essay
Prerequisite: permission of the department (see regulations listed in the Department of Political Science section).
Psychology PSYC
Faculty of Arts and Social Sciences

PSYC 100-3 Introduction to Psychology I
Acquaints the student with the major issues in contemporary psychology and considers the historical antecedents. Topics in learning, cognition, social psychology and abnormal psychology are considered. Prerequisite: PSYC 100. Students with credit for PSYC 101 may not take PSYC 100 for further credit.

PSYC 102-3 Introduction to Psychology II
Acquaints the student with major issues in contemporary psychology and considers their historical antecedents. Topics in learning, cognition, social psychology and abnormal psychology are considered. Prerequisite: PSYC 100. Students with credit for PSYC 101 may not take PSYC 102 for further credit.

PSYC 106-3 Psychological Issues in Contemporary Society
Relates contemporary knowledge from psychology to current social problems. Provides relevant information from studies pertaining to such problems as attitude development, prejudice, race relations, addiction, behavior technology, and family pathology.

PSYC 201-4 Introduction to Research Methods in Psychology
An introduction to the procedures used in psychological research, and to the logic underlying them. Topics include the strengths and weaknesses of different approaches to research, the formulation of testable questions, the control of extraneous influences, the measurement of effects, and the drawing of valid conclusions from empirical evidence. Provides a background for senior psychology courses since it offers a basis for the critical evaluation and conduct of research. Prerequisite: PSYC 100 and 102, (or PSYC 101). See the Letters of Permission section within the undergraduate Department of Psychology.

PSYC 206-3 Introduction to Psychological Assessment
A survey of selected techniques for assessment of individual and group differences in aptitudes, abilities, achievement, attitudes, interests, and personality. Emphasis is placed on evaluating the effectiveness of various techniques, including performance tests, self-report questionnaires, inventories and projective approaches. This course provides a suitable introduction for students considering graduate training in clinical psychology. Prerequisite: PSYC 201 and one of PSYC 241 (or 340) or 270 (or 370). Students with credit for PSYC 306 may not take PSYC 206 for further credit.

PSYC 207-3 Introduction to History of Psychology
Examines the development of modern psychology from the founding of the first laboratories in the late 19th century to the present. The development and revisions of the major theoretical systems of psychology are examined from a comparative and critical perspective. Prerequisite: PSYC 102. Students with credit for PSYC 308 may not take PSYC 207 for further credit.

PSYC 210-4 Introduction/Data Analysis in Psychology
Covers basic descriptive and inferential techniques most appropriately applied to the various forms of data from psychological research. Should be completed by majors and honors before the end of semester 4. Prerequisite: PSYC 201 and BC high school math 12 or MATH 100 or MATH 110 or equivalent. Students without BC high school math 12 should enrol in MATH 110, rather than MATH 100. See the Letters of Permission section within the undergraduate Department of Psychology.

PSYC 221-3 Introduction to Cognitive Psychology
Introduction to the study of cognitive and perceptual processes. Topics include memory, perception, attention, language, mental imagery, creativity, judgement and decision-making, and an introduction to cognitive disorders such as Alzheimer’s disease, dyslexia, apraxia and attention-deficit disorder. Prerequisite: PSYC 100 and 102 (or PSYC 101). Students with credit for PSYC 320 may not take PSYC 221 for further credit.

PSYC 241-3 Introduction to Abnormal Psychology
Introduces students to the area of abnormal psychology. Topics include the definition and classification of pathological behavior, factors involved in the development of pathology, and evaluation of therapy outcome. Prerequisite: PSYC 100 and 102 (or PSYC 101). Students with credit for PSYC 241 may not take PSYC 241 for further credit.

PSYC 250-3 Introduction to Developmental Psychology
Considers the psychological and physical aspects of human development from conception through middle childhood. Topics include social, emotional, language, cognitive, perceptual and physical development. Prerequisite: PSYC 100 and 102 (or PSYC 101). Students with credit for PSYC 350 or 351 may not take PSYC 250 for further credit.

PSYC 260-3 Introduction to Social Psychology
Examines methodology and content in social psychology. Topics include attitudes and values; social perception and cognition; group behavior; social inclusion; prejudice, discrimination, and sexism; aggression; altruism, interpersonal attraction and interpersonal relationships. Prerequisite: PSYC 100 and 102 (or PSYC 101). Students with credit for PSYC 360 may not take PSYC 260 for further credit.

PSYC 268-3 Introduction to Law and Psychology
An introduction to the area of law and psychology. The role and influence of psychology in the legal system will be discussed. Topics include: social psychology and law, developmental psychology and law, juvenile justice, experimental psychology and law, mental disability and law. (lecture/tutorial) Prerequisite: PSYC 100 and 102 (or PSYC 101). Students with credit for PSYC 369 may not take this course for further credit.

PSYC 270-3 Introduction to Theories of Personality
Introduces students to classic and contemporary theories, conceptual debates, and empirical research in the area of personality. Prerequisite: PSYC 100 and 102 (or PSYC 101).

PSYC 280-3 Introduction to Biological Psychology
Examines the major areas in biological psychology. Topics include the basics of neuroanatomy and nerve cell function, the behavioral and physiological effects of drugs and hormones in the nervous system, evolutionary perspectives on the brain and behavior, and the biopsychology of vision, the chemical senses, hearing, movement, biological rhythms, sex, and cognitive processes. Prerequisite: PSYC 100 and 102 (or PSYC 101). Recommended: BISC 101.

PSYC 301-4 International Research Methods and Data Analysis
A continuation of PSYC 210 and 210. Provides extensions of the basic theory and methods of research design and data analysis. Includes discussions of the analysis of substantive problems, the choice of appropriate research designs, and special problems that arise in the analysis of psychological data. Prerequisite: PSYC 201 and 210. See the Letters of Permission section within the undergraduate Department of Psychology.

PSYC 303-3 Perception
An introduction to the study of perceptual processes with an emphasis on seeing and hearing. Topics include the perception of features, objects, motion, depth, time, visual illusions, and individual differences in perceptual ability. Prerequisite: PSYC 201 and one of 221 (or 320) or 335.

PSYC 307-3 History of Psychology in Western Scholarship
Examines the development of psychological thought through theories of ontology, epistemology and ethics that laid the foundations for modern psychology. Provides a background for psychology courses by analysing various viewpoints on the mind-body relationship, empiricism, rationalism and the nature of science contributed to the development of modern psychology. Prerequisite: PSYC 201 and 207.

PSYC 311-4 Psychological Measurement
Deals with basic problems in the development of psychological measures. Treatment of the concepts of reliability and validity and the application of these concepts in experimental and observational research. Implications of measurement principles for the design of experiments and studies. Introduction to classical and contemporary methods of different CONTENT AREAS. Prerequisite: PSYC 201, 206 (or 306) and 301.

PSYC 321-3 Individual Differences in Cognitive Abilities
Surveys theoretical models and applied research on the nature of individual differences in cognitive abilities. Topics will include measurement, the biological and psychosocial origins of cognitive abilities, the relations between cognitive abilities and other behavior, and the social implications of different models of cognitive abilities. Prerequisite: PSYC 201 and 221 (or 320).

PSYC 325-4 Memory and Mind
Examination of the phenomena of memory and the retention and reproduction of information. Considers the conditions and principles of retention and recall in short- and long-term memory. Prerequisite: PSYC 201 and 221 (or 320).

PSYC 330-3 Attention
Survey the different aspects of paying attention. Topics include the effects of selective and divided attention on perceptual and cognitive function; the role of attention in human performance; attentional dysfunction and attention-deficit disorder; and the development of attentional capacity across the life span from newborns to the elderly. Prerequisite: PSYC 201 and 221 (or 320).

PSYC 335-3 Sensation I
Examines the properties of the visual, auditory, olfactory, gustatory, and kinesthetic systems and receptor mechanisms with a strong emphasis on physiology. Topics include psychophysical measurement of sensations, cross-modal organization and computational modeling of sensory processes, and the interface between sensory and perceptual processes. Prerequisite: PSYC 201 and one of 280 or 303.

PSYC 342-0 Practicum I
First semester of work experience in the Psychology Co-operative Education program. Prerequisite: PSYC 201 and 210. Students should apply to the co-op co-ordinator one semester in advance.

PSYC 343-0 Practicum II
Second semester of work experience in the Psychology Co-operative Education program. Prerequisite: successful completion of PSYC 342-0 and 45 credit hours with a minimum CGPA of 3.0.
PSYC 354-3 Development of Children's Thinking
Examines research and theory concerning the origins and development of cognition in humans. Traces the development of language and children's thinking about the physical and social world from birth to adulthood, with a focus on infancy and childhood. Prerequisite: PSYC 201 and 250 (or 350 or 351).

PSYC 355-3 Adolescent Development
Considers human development from the end of childhood to the beginning of the adult stage, from a biopsocial point of view. Included among the topics are psychological effects of sexual maturation, choice of vocation and marriage partner, effects of participation in the gang and youth organization, cultural variations in the patterns of growth. Prerequisite: PSYC 201 and 250 (or 350 or 351).

PSYC 356-3 Developmental Psychopathology
Examines theoretical approaches, research findings, and treatment outlooks concerning problems and disorders in childhood development. Prerequisite: PSYC 201, 241 (or 340), and 250 (or 350 or 351).

PSYC 357-3 Adulthood and Aging
Considers human development from young adulthood to old age. Included are theories of adult development and aging; environmental and biological factors in aging; and the effects of aging on sensation, perception, learning, cognition, personality, and social relations. Prerequisite: PSYC 201 and 250 (or 350 or 351) or acceptance into the diploma program in gerontology.

PSYC 361-3 Social Cognition
Reviews theory and research on the cognitive basis of interpersonal perception and behavior, with an underlying focus on basic processes of attention, memory and inference. Topics include architecture of memory, heuristics and biases, automatically, probabilistic reasoning, co-variation detection, causal inference, trait inference. Such processes are used to understand self-perception, emotions, goal directed behavior, impression formation, stereotyping and prejudice, and cultural differences. Prerequisite: PSYC 201 and 260 (or 360).

PSYC 362-3 Interpersonal Relations
Reviews theory and research on the psychology of interpersonal relations, with particular attention to personal relationships. Topics include theoretical perspectives on relationships; interpersonal attraction; dating, marriage, and friendship; social networks; cognitive processes and communication dynamics within interpersonal relationships. Prerequisite: PSYC 201 and 260 (or 360).

PSYC 365-3 Health Psychology
Explores applications of psychological principles to health and health care. The development of the field of health psychology is traced and major topics introduced. Topics include health promotion, the hospital experience, communication in medical settings, coping with serious illness, psychoneuroimmunology, and field-specific methodology. Prerequisite: PSYC 201 and 260 (or 360).

PSYC 368-3 Contemporary Issues in Psychology and Law
Topics include children in the courts, autobiographical memory in legal contexts; risk assessment; civil forensic, and offender treatment. (lecture/tutorial) Prerequisite: PSYC 201, 268. Students with credit for PSYC 369 prior to 2005-3 will have satisfied the PSYC 268 requirement.

PSYC 371-3 Intervention: Process and Outcome
Reviews the major approaches to psychological intervention in terms of theory, practice and outcome evaluation. The course will examine both the scientific and practitioner components of intervention. Prerequisite: PSYC 201 and two of 206 (or 306), 241 (or 340), or 270 (or 370). Students with credit for PSYC 375 may not take PSYC 371 for further credit.

PSYC 381-3 Behavioral Endocrinology
Examines the ways in which hormones influence the nervous system, regulating essential behaviors such as eating, drinking, sex, parenting, sleep, emotional behavior and cognitive processes. Prerequisite: PSYC 201 and 280.

PSYC 382-3 Cognitive Neuroscience
Examines the neurophysiological bases of cognitive and perceptual processes such as memory, attention, language, thinking, imagery, vision, audition, and sensory processes. The study of human cognitive performance with measurement techniques such as ERP, PET, and fMRI is also discussed. Prerequisite: PSYC 201 and 280.

PSYC 383-3 Psychopharmacology
A survey of psychosocial effects of drugs affect brain function to alter consciousness and behavior. Topics will include cellular mechanisms such as drugs that affect the central nervous system and discussions of the psychological effects of drug-induced changes in the brain. Research on drug abuse and addiction and means of treating them will be covered. Historical, social and legal aspects of non-medical drug use will be discussed, as will the use of medication in the treatment of anxiety, depression, schizophrenia, dementia and other psychological disorders. Prerequisite: PSYC 201 and 280. Students with credit for PSYC 483 may not take PSYC 383 for further credit.

PSYC 384-3 Developmental Psychobiology
A survey of research on normal and abnormal brain development and its behavioral consequences, covering the fetal period through old age. Genetic, prenatal, nutritional, and experiential effects on brain and behavior will be discussed. Topics include: bio-developmental aspects of sensory-motor, social, linguistic, intellectual, and sexual behavior. Effects of head trauma, disease, abnormal environments, and aging will also be covered. Prerequisite: PSYC 201 and 280. Recommended: PSYC 250.

PSYC 385-3 Evolutionary Psychology
Topics such as sexual selection, mate choice, sex differences in behavior, aggression, dominance and territoriality are considered from an evolutionary perspective. The role of heredity and environment in the development of these behaviors is also discussed. Prerequisite: PSYC 201 and 280.

PSYC 386-4 Laboratory in Behavioral Neuroscience
An overview of techniques used for studying the biological basis of behavior in humans and animals. Examines the logic and limitations of specific research methods. Provides an opportunity to master a set of techniques and to conduct supervised research projects in the laboratory. Prerequisite: PSYC 201 and 280. Students with credit for PSYC 481 may not take PSYC 386 for further credit.

PSYC 387-3 Human Neuropsychology
Examines the neural processes that underlie cognitive functioning and behavior. Topics include neuroanatomy, neuropsychology, brain damage, neurological diseases (e.g., schizophrenia, Alzheimer's, Parkinson's), and problems in spatial ability, memory, language, mood and anxiety. Prerequisite: PSYC 201 and 280.

PSYC 388-3 Biological Rhythms and Sleep
Behavior and physiology are regulated by biological clocks, which function to synchronize the organism optimally with its environment. In this course we examine the adaptive role of clocks in animal behavior, the neural and endocrine mechanisms of daily, monthly and yearly rhythms, and the relevance of clocks, rhythms and sleep to human performance and psychopathology. We will also consider the mechanisms and functions of sleep states. Prerequisite: PSYC 201 and 280. Students with credit for PSYC 488 may not take PSYC 388 for further credit.

PSYC 402-4 Selected Topics in History and Theoretical Psychology
Examines the basic ideas concerning the relationship between mind and body and the empirical and rational foundations of scientific thought as applied to modern psychology. Students will be expected to analyze either the historical development of contemporary approaches or theoretical issues that are relevant to their area of interest in psychology. Prerequisite: PSYC 201, and one of 207 (or 308) or 307 and 60 hours of credit and a CGPA of 3.0 or 90 hours of credit and a CGPA of 2.5.

PSYC 410-4 Research Design I
Reviews the basic logic of controlled experimentation, and focuses on analysis of variance designs commonly used in psychological research. Particular emphasis is given to the relative merits of the several designs when there are multiple research questions to be answered. Prerequisite: PSYC 201, 210, 301 and 60 hours of credit with a CGPA of 3.0 or 90 hours of credit with a CGPA of 2.5.

PSYC 411-4 Research Design II
Focuses on multivariate regression and correlation models. Deals with ways of answering questions when direct experimental manipulation is not feasible, and demonstrates the utility of the principles involved for solving problems other than those for which they were first proposed. Prerequisite: PSYC 201, 210, 301, and 60 hours of credit with a CGPA of 3.0 or 90 hours of credit with a CGPA of 2.5. Recommended: PSYC 410.

PSYC 415-4 Selected Topics in Measurement
An intensive exposure to selected topics in measurement theory and psychometrics including, e.g., advanced classical test theory, modern test theory, and factor analysis. The content will vary, offering to offering. Prerequisite: PSYC 301, 311 and 60 hours of credit and a CGPA of 3.0 or 90 hours of credit and a CGPA of 2.5. Recommended: PSYC 410 and 411.

PSYC 430-4 Selected Topics in Cognition I
Prerequisite: PSYC 201, 210, 221 (or 320), and 60 hours of credit and a CGPA of 3.0 or 90 hours of credit and a CGPA of 2.5.

PSYC 432-4 Selected Topics in Cognition II
Prerequisite: PSYC 201, 210, 221 (or 320), and 60 hours of credit and a CGPA of 3.0 or 90 hours of credit and a CGPA of 2.5.

PSYC 441-4 Selected Topics in Clinical Psychology
An intensive examination of a selected topic in clinical psychology, varying to include offerings such as psychopathology (adult or child), individual differences in cognitive abilities, behavioral approaches to intervention, addiction, and other special topics. Prerequisite: PSYC 201, 210, 371 (or 375) and 60 hours of credit and a GPA of 3.0, or 90 hours of credit and a CGPA of 2.5. Students with credit for PSYC 444 may not take PSYC 441 for further credit if similar topics are covered. See department for further information.

PSYC 442-0 Practicum III
Third semester of work experience in the Psychology Co-operative Education program. Prerequisite: successful completion of PSYC 342 and 343 and 60 semester hours with a minimum CGPA of 3.0.

PSYC 443-0 Practicum IV
Fourth semester of work experience in the Psychology Co-operative Education program.
Prerequisite: successful completion of PSYC 442 and 75 semester hours with a minimum CGPA of 3.0.

**PSYC 450-4 Selected Topics in Developmental Psychology I**
Prerequisite: PSYC 201, 210, 250 (or 350 or 351) and 60 hours of credit and a CGPA of 3.0 or 90 hours of credit and a CGPA of 2.5.

**PSYC 451-4 Selected Topics in Developmental Psychology II**
Prerequisite: PSYC 201, 210, 250 (or 350 or 351) and 60 hours of credit and a CGPA of 3.0 or 90 hours of credit and a CGPA of 2.5.

**PSYC 452-4 Selected Topics in Developmental Psychology III**
(4-0) Prerequisite: PSYC 201, 210, 250 (or 350 or 351) and 60 hours of credit and a CGPA of 3.0 or 90 hours of credit and a CGPA of 2.5.

**PSYC 461-4 Selected Topics in Social Cognition**
Prerequisite: PSYC 201, 210, 260 (or 360), 361 and 60 hours of credit and a CGPA of 3.0 or 90 hours of credit and a CGPA of 2.5.

**PSYC 462-4 Selected Topics in Interpersonal Relationships**
Prerequisite: PSYC 201, 210, 280 (or 380), 362 and 60 hours of credit and a CGPA of 3.0 or 90 hours of credit and a CGPA of 2.5.

**PSYC 468-4 Selected Topics in Psychosocial Psychology**
(ses) Prerequisite: PSYC 210, PSYC 368 (or PSYC 369) and 60 hours of credit and a CGPA of 3.0. Students with credit for PSYC 469 may not take this course for further credit.

**PSYC 480-4 Selected Topics in Biological Psychology I**
Prerequisite: PSYC 201, 210, 280, and 60 hours of credit and a CGPA of 3.0 or 90 hours of credit and a CGPA of 2.5.

**PSYC 482-4 Selected Topics in Biological Psychology II**
Prerequisite: PSYC 201, 210, 280 and 60 hours of credit and a CGPA of 3.0 or 90 hours of credit and a CGPA of 2.5.

**PSYC 490-4 Honors Project**
An in-depth investigation of a topic in psychology, culminating in a critical literature review and the formulation of a research proposal. Prerequisite: PSYC 301 with a minimum grade of C.

**PSYC 491-3 Selected Topics in Psychology**
(ses) Prerequisite: permission of the department.

**PSYC 492-5 Selected Topics in Psychology**
(ses) Prerequisite: permission of the department.

**PSYC 493-3 Directed Studies**
Independent reading or research in topics selected in consultation with the supervising instructor. Prerequisite: Permission of the department. See the Directed Studies Courses section within the undergraduate Department of Psychology section.

**PSYC 494-3 Directed Studies**
Independent reading or research in topics selected in consultation with the supervising instructor. Prerequisite: Permission of the department. See the Directed Studies Courses section within the undergraduate Department of Psychology section.

**PSYC 495-3 Directed Studies**
Independent reading or research in topics selected in consultation with the supervising instructor. Prerequisite: Permission of the department. See the Directed Studies Courses section within the undergraduate Department of Psychology section.

**PSYC 499-6 Honors Project**
The research proposed in PSYC 490 is executed and the results are written up in thesis format. Prerequisite: PSYC 490.

**PSYC 600-3 Biological Bases of Behavior**
Psychology

**PSYC 601-3 Cognitive and Affective Bases of Behavior**
Psychology

**PSYC 602-3 Developmental and Social Bases of Behavior**
Psychology

**PSYC 603-3 Individual Differences**
Psychology

**PSYC 700-3 Professional Issues in Psychology**
Psychology

**PSYC 705-3 Proseminar in History and Systems**
Psychology

**PSYC 715-1.5 Proseminar in Measurement**
Psychology

**PSYC 720-3 Proseminar in Learning Psychology**
Psychology

**PSYC 725-3 Proseminar in Cognition**
Psychology

**PSYC 730-3 Proseminar in Perception**
Psychology

**PSYC 740-3 Proseminar in Motivation**
Psychology

**PSYC 744-3 Proseminar in Psychopathology**
Psychology

**PSYC 750-3 Proseminar in Developmental Psychology**
Psychology

**PSYC 760-3 Proseminar in Social Psychology**
Psychology

**PSYC 770-3 Proseminar in Personality**
Psychology

**PSYC 780-3 Proseminar in Physiological Psychology**
Psychology

**PSYC 785-3 Proseminar in Animal Behavior**
Psychology

**PSYC 790-3 Proseminar in Law and Psychology**
Psychology

**PSYC 804-3 Seminar in Evaluation**
Psychology

**PSYC 806-3 Advanced Topics in Assessment**
Prerequisite: PSYC 820, 821, 822, 823, 824, or permission of the instructor.

**PSYC 807-3 Advanced Topics in Intervention**
Prerequisite: PSYC 820, 821, 822, 823, 824, or permission of the instructor.

**PSYC 808-3 Advanced Topics in Evaluation**
Prerequisite: PSYC 820, 821, 822, 823, 824, or permission of the instructor.

**PSYC 809-3 Advanced Topics in Applied Psychology**
Prerequisite: PSYC 820, 821, 822, 823, 824, or permission of the instructor.

**PSYC 810-3 Seminar in Social Psychology and Law**
Prerequisite: PSYC 790.

**PSYC 815-3 Mental Health Law and Policy**
Prerequisite: PSYC 790.

**PSYC 819-3 Ethical and Professional Issues**
Prerequisite: graduate program standing, Graded on a satisfactory/unsatisfactory basis.

**PSYC 820-3 Seminar in Individual Assessment**
Prerequisite: admission to the clinical program or permission of the instructor.

**PSYC 821-2 Practicum in Individual Assessment**
Corequisite: registration in PSYC 820, graduate standing in the clinical program, or permission of the instructor. Graded on a satisfactory/unsatisfactory basis.

**PSYC 822-3 Seminar in Intervention**
Prerequisite: graduate standing in the clinical program, or permission of the instructor.

**PSYC 823-2 Practicum in Intervention**
Prerequisite: registration in PSYC 822, graduate standing in the clinical program, or permission of the instructor. Graded on a satisfactory/unsatisfactory basis.

**PSYC 824-3 Research Issues in Psychology**
Prerequisite: PSYC 910, 911 or permission of the instructor.

**PSYC 825-2 Intervention (Ongoing)**
Prerequisite: admission to the clinical program. Required every semester prior to internship, except when granted 'on leave' status from PSYC 825, or when registered in PSYC 880 and also inactive at the Clinical Psychology Centre (CPC). Graded on a satisfactory/unsatisfactory basis.

**PSYC 830-3 Seminar in Child Evaluation and Treatment Formulation**
Prerequisite: PSYC 750, 820.

**PSYC 831-2 Practicum in Child Evaluation and Treatment Formulation**
Prerequisite: PSYC 750, 820. Corequisite: PSYC 830.

**PSYC 835-3 Special Topics in Civil Forensic Psychology**
Prerequisite: PSYC 790, 815.

**PSYC 836-3 Special Topics in Criminal Forensic Psychology**
Prerequisite: PSYC 790, 815.

**PSYC 860-5 Social Psychology**

**PSYC 870-5 Personality**

**PSYC 880-3 Practicum**
Full-time clinical work for four months in an approved setting. Prerequisite: PSYC 744, 770, 820, 821, 910, 911. Graded on a satisfactory/unsatisfactory basis.

**PSYC 881-3 Senior Practicum**
Prerequisite: admission to the doctoral clinical program. Graded on a satisfactory/unsatisfactory basis.

**PSYC 882-3 Neuropsychology Practicum**
Prerequisite: Admission to the clinical program with a specialization in neuropsychology. Graded on a satisfactory/unsatisfactory basis.

**PSYC 883-3 Practicum III**

**PSYC 884-3 Practicum IV**

**PSYC 886-9 Internship**
Full-time clinical work for 12 months in an approved setting. Prerequisite: equivalent of the MA clinical program, three PhD level courses, successful completion of the PhD comprehensive examinations, and successful defense of the PhD research proposal. Graded on a satisfactory/unsatisfactory basis. Registration in PSYC 886 must be continued for a total of three consecutive semesters.

**PSYC 890-3 Practicum in Clinical Forensic Psychology**
Prerequisite: PSYC 790, 835 or 836.

**PSYC 892-3 Research/Policy Practicum in Law and Psychology**
Prerequisite: PSYC 790.

**PSYC 897-3 Research Project in Law and Psychology/Forensic Psychology**
Prerequisite: PSYC 790.
Public Policy Program MPP
Faculty of Arts and Social Sciences

MPP 800-5 Introduction to Public Policy Issues
An introduction to a range of contemporary public policy issues that is designed to illustrate the complexity of good analysis and also to introduce alternative techniques of analysis. The course format is seminar presentations on topics linked to case studies introduced in other core courses in the MPP program. Seminars are presented by faculty, analysts from the public policy community, and students.

MPP 801-5 Economic Foundations of Policy Analysis I
An examination of the basic operation of a market economy and introduction to key economic concepts and techniques.

MPP 802-5 Economic Foundations of Policy Analysis II
Application of economic concepts and techniques to a variety of public policy issues.

MPP 803-5 Political Foundations of Policy Analysis I
The first of a two semester sequence that examines the basic structures and processes of government in Canada and their context in the evolving Canadian political economy. It also introduces students to key actors in the policy process and examines their structure and behavior. Examples of relevant actors include federal, provincial and local state structures and agencies, and a variety of societal actors such as pressure groups, social movements, think tanks and other associations.

MPP 804-5 Political Foundations of Policy Analysis II
Building upon MPP 803, this course provides a detailed examination of the policy process – the stages through which public policies are developed.

MPP 805-5 Research Techniques and Quantitative Methods I
Research techniques will include survey design, implementation and analysis, statistical inference, and qualitative methods of analysis.

MPP 806-5 Research Techniques and Quantitative Methods II
Application of statistical quantitative methods for policy analysis, including analysis of variance, and regression techniques.

MPP 807-5 Introduction to Policy Analysis
An introduction to techniques of public policy analysis, evaluation, and simulation techniques. Group projects on current public policy issues will constitute a major portion of this course.

MPP 808-5 Advanced Policy Analysis I
Advanced policy analysis techniques, public affairs, communication, and client interaction are covered and applied by students to individual projects on current public policy issues. This course will constitute the project component of the program.

MPP 809-5 Advanced Policy Analysis II
Advanced policy analysis techniques are covered and applied by students to individual projects on current public policy issues. This course will constitute the project component of the program. Students are required to present and defend their projects in this course.

MPP 810-5 Issues in Public Policy I
This course provides an opportunity to cover topics appropriate to the program but not covered extensively in the core courses.

MPP 811-5 Issues in Public Policy II
This course provides an opportunity to cover topics appropriate to the program but not covered extensively in the core courses.

MPP 812-5 Selected Topics in Public Policy I
This course provides an opportunity to cover topics appropriate to the program but not covered extensively in the core courses.

MPP 813-5 Selected Topics in Public Policy II
Specialized study in topics germane to the field of public policy.

MPP 814-5 Selected Topics in Public Policy III
This course provides an opportunity to cover topics appropriate to the program but not covered extensively in the core courses.

MPP 815-5 Selected Topics in Public Policy IV
This course provides an opportunity to cover topics appropriate to the program but not covered extensively in the core courses.

MPP 816-5 Selected Topics in Public Policy V
This course provides an opportunity to cover topics appropriate to the program but not covered extensively in the core courses.

MPP 825-5 MPP Directed Readings I
MPP 826-5 MPP Directed Readings II
MPP 850-0 MPP Internship
Students who do not have prior work experience in public policy are placed in a public or private organization connected to public policy. The work they undertake must be of sufficient depth and breadth to allow the student the opportunity to demonstrate his or her acquired knowledge and skills. Students will be required to produce a work report that will be an appraisal of the student’s work experience.

Publishing Program PUB
Faculty of Arts and Social Sciences

PUB 600-4 Topics in Publishing Management
An analysis of management issues essential to the daily operation of publishing firms. Emphasis will be placed on the distinctive nature of publishing as a cultural/information industry, the applicability of theory and practice in marketing and accounting and the legal underpinnings of publishing. Prerequisite: admittance to the program.

PUB 601-4 Editorial Theory and Practice
The theoretical component of this course focuses on theories of composition and rhetoric. The practical component focuses on the various types of editing that take place in publishing. Students are examined on both the theory and their attained competence in editing. Prerequisite: admittance to the program.

PUB 602-4 Design and Production Control in Publishing
A consideration of the theory, principles, traditions and current trends in publication design as applied to print and electronic publishing. Students will undertake design exercises in addition to learning the relationship between design, costing and print production. Prerequisite: admittance to the program.

PUB 605-3 Book Publishing Project
Students are assigned to groups (simulated book publishing companies) and are given a company profile for which they develop a season’s titles. They form a team based on industry roles: publisher, editor, subrights manager, production manager, art director, promotion and marketing manager. Each team produces the editorial profile, costing and marketing

COURSES

PSYC 898-6 MA Thesis
PSYC 899-6 PhD Thesis
PSYC 905-3 Seminar in History
Psychology

PSYC 910-3 Research Design I: Experiments
Reviews the basic logic of controlled experimentation, and focuses on analysis of variance designs commonly used in psychological research. Particular emphasis is given to the relative merits of the several designs when there are multiple research questions to be answered.

PSYC 911-3 Research Design II: Research Studies
Focuses on multivariate regression and correlation models. Deals with ways of answering questions when direct experimental manipulation is not feasible, and emphasizes new applications.

PSYC 912-1.5 Research Seminar
Prerequisite: PSYC 790.

PSYC 913-1.5 Research Seminar

PSYC 914-1.5 Research Seminar

PSYC 915-3 Seminar in Measurement
Psychology

PSYC 916-1.5 Research Seminar

PSYC 917-1.5 Research Seminar

PSYC 918-1.5 Research Seminar
Research seminars are designed specifically to enable graduate students in Psychology to plan, execute, and analyse research including that leading to MA and PhD degrees. The seminars will provide directions for future research, critical discussion of pending designs, aid in resolving problems in ongoing studies, and alternative interpretations of results of completed projects. The research seminar courses are graded on a satisfactory/unsatisfactory basis.

PSYC 920-3 Seminar in Learning Psychology

PSYC 925-3 Seminar in Cognitive Processes Psychology

PSYC 930-3 Seminar in Perception Psychology

PSYC 935-3 Seminar in Sensation Psychology

PSYC 940-3 Seminar in Motivation-Emotion Psychology

PSYC 944-3 Seminar in Psychopathology Psychology

PSYC 950-3 Seminar in Developmental Psychology Psychology

PSYC 960-3 Seminar in Social Psychology Psychology

PSYC 965-3 Seminar in Psycholinguistics Psychology

PSYC 970-3 Seminar in Personality Psychology

PSYC 980-3 Biological Psychology Psychology

PSYC 985-3 Seminar in Animal Behavior Psychology

PSYC 990-3 Seminar in Law and Psychology Prerequisite: PSYC 790.

PSYC 997-3 Directed Studies

PSYC 998-3 Directed Readings Prerequisite: Admission to the masters or doctoral program.

PSYC 999-6 PhD Comprehensive Examination All students in the experimental and clinical psychology PhD programs are required to successfully complete the comprehensive exam.
plans for the list, designs the covers and makes a final presentation to an industry panel.

PUB 606-3 Magazine Publishing Project
Students are assigned to groups and form a team based on common roles in the industry: publisher, comptroller, editor, production manager, art director, advertising, or distribution manager. In consultation with faculty and industry speakers the team develops a magazine concept, creates a business plan including cost projections, and identifies the readership demographics and potential. Design mockups are produced and a final presentation made to an industry panel.

PUB 607-3 Web Publishing Project
Students create their own home pages and working in a team environment, participate in a web publishing project that may include the CCSP web site. Normally the web publishing project is real rather than a simulation. Students will be assigned to roles based, in part, on their interests but most importantly on their capabilities as judged from the course work completed before the commencement of the project.

PUB 800-4 Text and Context
An examination of the contemporary state and developing trends in the Canadian publishing industry. Emphasis is placed on book publishing, business dynamics, government policy, and international trade. Attention is also given to magazine and multimedia publishing and comparisons with other countries are drawn. Prerequisite: admittance to the program.

PUB 801-4 History of Publishing
A consideration of publishing from the time of Gutenberg to the present day including discussion of the medium of print and its influence on human expression and thought. Emphasis will be placed on the role of publishing and publishing policies in society. Prerequisite: admittance to the program.

PUB 802-4 Technology and the Evolving Form of Publishing
An examination of the nature of technology and the social, cultural, legal, economic and political implications of evolving publishing business forms, publication formats, markets, policies and especially technology. Opportunities for Canadian publishing in domestic and global markets will be emphasized. Prerequisite: admittance to the program.

PUB 897-6 Internship Project Report (Completion)
Internship Project Report (Completion)
Students complete their internship project report and work with their supervisory committee to bring it to a final acceptable form.

PUB 899-6 Publishing Internship or Project
Students are placed in an applied setting. The work they undertake must be of sufficient depth and breadth to allow the student the opportunity to demonstrate his or her acquired knowledge and skills. Students will be required to produce two reports; the first, a work report which will be an appraisal of the student's work experience, and the second, a project report which will be an investigation and analysis of a particular problem or case. Prerequisite: admittance to the program.

Resource and Environmental Management
REM
Faculty of Applied Sciences
REM 100-3 Global Change
This course provides students with an overview of global environmental change and its causes from a social science perspective, historically and at the present time. Population growth, an increasing ecological footprint and changes in ideology, social organization, economy and technology will be critically reviewed. New ways of thinking in natural and social science will be considered in relation to specific issues such as land, soil and food; energy, raw materials and solid waste; air pollution and transportation; water, oceans and fisheries; climate change; forestry and biodiversity; urbanization, and alternative futures.

REM 311-3 Applied Ecology and Sustainable Environments
Students will learn to apply the ecological concepts introduced in prerequisite courses to applied ecological problems at the population, community, and ecosystem levels of organization. Emphasis will be placed on processes which drive ecological dynamics, on recognizing those processes and dynamics in applied contexts, and on interpreting ecological data. Prerequisite: REM 100 or EVSC 200, BISC 204 or GEOG 216, STAT 101 or GEOG 251 or equivalent.

REM 356-3 Institutional Arrangements for Sustainable Environmental Management
This course provides an overview of some basic legislation, agencies, and policies which currently are in use to regulate environmental problems at the international, national, provincial, regional, and local levels. Its purpose is to present a basic set of evaluative questions which can be used to address the effectiveness and efficiency of the environmental regulatory and management systems currently in use. Prerequisite: REM 100.

REM 412-3 Environmental Modeling
Students receive hands-on experience in the construction and analysis of computer simulation models of environmental and ecological systems and problems. Prerequisite: BISC 204, REM 100 or EVSC 200, MATH 151 or 154 or 157, MATH 152 or 155, STAT 101 or 301 or equivalent.

REM 445-3 Environmental Risk Assessment
Students receive theory and practical experience in the control and management of hazardous substances in the environment. This includes the application of techniques used to assess toxicological, ecological and human health risks of contaminants within the current regulatory framework. Prerequisite: MATH 151, 154, or 157; STAT 101, 103, or 301 or GEOG 251.

REM 471-3 Forest Ecosystem Management
Students will examine problems of managing forest ecosystems for a variety of societal goals and objectives. The course will start with an examination of the ecological characteristics of forest ecosystems and their dynamics. This section will focus on the objectives and tools of forest management in an ecological context. The final section of the course will focus on the institutions, economics and policies of forest management, with a focus on British Columbia's historical and current management issues. This course will involve lectures, group discussions, field trips, and exercises. Prerequisite: At least one of REM 311, BISC 304, BISC 310, BISC 404, GEOG 315, or GEOG 316.

REM 601-5 Social Science of Natural Resources Management
An introduction to the relevance of social science perspectives, data and analytical tools in resource management, especially as these complement, supplement or critique perspectives from natural science or economics. Not for credit toward a PhD in resource and environmental management.

REM 602-5 Natural Resource Management II/Advanced Seminar
A professional group workshop course focusing on specific resource and environmental problems.

Prerequisite: eight REM courses or permission of instructor.

REM 609-5 Evaluation of Management Strategies for Living Resources
This course examines living-resource management as a control system, including open loop (set point) control, closed loop (feedback) control, passive and active adaptive management. We explore the processes for the design of living-resource management systems, including interpreting policy as operational objectives, iterative development and stakeholder consultation, assessment methods, decision rules, evaluation using closed loop simulations, performance measures, trade-off between multiple objectives and methods for the presentation of results. The course includes a laboratory project to evaluate a management approach for a selected resource using computer simulations. Prerequisite: REM 611, REM 612 or REM 613 or permission of instructor.

REM 610-5 Applied Environmental Toxicology and Environmental Management of Contaminants
A study of the environmental behavior and toxic effects of chemical substances in the environment and the application of methodologies for their assessment and management.

REM 611-5 Population and Community Ecology
A review of population, community, and ecosystem ecology; implications of these areas for methods of resource management and environmental assessment.

REM 612-5 Simulation Modelling in Natural Resource Management
Methods of constructing simulations models and analyzing them through sensitivity analysis. Application of simulation modelling to research and management of environmental and resource systems. Topics will include management of wildlife, forests, insect pests, fisheries, pollution problems, energy resources, and recreational land use. Prerequisite: REM 611 or permission of the instructor.

REM 613-5 Methods in Fisheries Assessment
Introduction to fishery management, fisheries ecosystems and the effects of fishing. An introduction to fish population dynamics, methods of data analysis and the quantification of uncertainty. Introduction to selected methods for providing scientific advice on the productivity and status of fish stocks. Focus will be primarily on biological aspects of fisheries, population dynamics, methods of data analysis and models of environmental and ecological systems and problems. Prerequisite: BISC 204, REM 100 or EVSC 200, MATH 151 or 154 or 157, MATH 152 or 155, STAT 101 or 301 or GEOG 251.

REM 614-5 Forest Ecosystem Management
Students will examine problems of managing forest ecosystems for a variety of societal goals and objectives. The course will start with an examination of the ecological characteristics of forest ecosystems and their dynamics. This section will focus on the objectives and tools of forest management in an ecological context. The final section of the course will focus on the institutions, economics and policies of forest management, with a focus on British Columbia's historical and current management issues. This course will involve lectures, group discussions, field trips, and exercises. Prerequisite: At least one of REM 311, BISC 304, BISC 310, BISC 404, GEOG 315, or GEOG 316.

REM 621-5 Ecological Economics
A study of the environmental behavior and toxic effects of chemical substances in the environment and the application of methodologies for their assessment and management.

REM 622-5 Applied Environmental Toxicology
This course examines living-resource management as a control system, including open loop (set point) control, closed loop (feedback) control, passive and active adaptive management. We explore the processes for the design of living-resource management systems, including interpreting policy as operational objectives, iterative development and stakeholder consultation, assessment methods, decision rules, evaluation using closed loop simulations, performance measures, trade-off between multiple objectives and methods for the presentation of results. The course includes a laboratory project to evaluate a management approach for a selected resource using computer simulations. Prerequisite: REM 611, REM 612 or REM 613 or permission of instructor.

REM 625-5 Risk Assessment and Decision Analysis for Management of Natural Resources
A study of the environmental behavior and toxic effects of chemical substances in the environment and the application of methodologies for their assessment and management.

REM 651-5 Ecological Economics
A study of the environmental behavior and toxic effects of chemical substances in the environment and the application of methodologies for their assessment and management.
REM 641-5 Law and Resources
A study of legal interventions related to resource planning and environmental control. The course looks at several aspects of environmental and resource law including administrative and constitutional law, fisheries and forestry regulation, and native rights.

REM 642-5 Regional Planning I
Theory and techniques of regional analysis; planning models and their application to key resource sectors.

REM 643-5 Environmental Conflict and Dispute Resolution
This course examines theoretical aspects of conflict and dispute resolution in natural resource management settings and is designed to assist students in understanding the nature of environmental conflict and the role of environmental dispute resolution (EDR) techniques.

REM 644-5 Public Policy Analysis and Administration
Analysis of methods of policy-making and problem solving with particular emphasis on natural resource issues. Topics include goal setting, problem definition, program scheduling, policy evaluation, policy implementation and public administration. A practical analysis of the structure and processes surrounding major contemporary policy issues.

REM 645-5 Resource Development Communities
Examination of the impact of resource developments on communities in Canada. An overview of the social organization of resource-based communities and an analysis of the participatory process in decision making in resource management.

REM 646-5 Environmental and Social Impact Assessment and Environmental Management Systems
Evaluation and application of current methodologies for social, economic, and biophysical impact assessment and the ISO 14001 standard for environmental management systems.

REM 647-5 Parks and Outdoor Recreation Planning
The course examines a combination of both ecological and market-based resource assessment and planning techniques for conservation and use of parks, forests, and protected areas. Visitor behavior and management in recreation and protected areas settings will be examined.

REM 648-5 The Tourism System
This course will examine the social, environmental and economic components of tourism. Topics will include theoretical concepts and elements of tourism, historic evolution, spatial patterns, and case studies of tourism development in various parts of the world. Discussion of tourism planning and management will focus on the development of tourism as a sustainable resource.

REM 649-5 Tourism Planning and Policy
The course provides frameworks and methodologies for understanding the policy and planning initiatives of public and private sector organizations. Foundations for resource assessment, market analysis, product-market matching and regional tourism strategy development are explored in detail. Prerequisite: permission of instructor.

REM 650-5 Energy and Materials Management and Policy
Management strategies and policies to achieve sustainable flows of energy and materials in the economy. Eco-efficiency strategies reduce these flows while resource substitution strategies seek more environmentally benign flows. Applies expertise from economics, thermodynamics, engineering, geology and behavioral sciences.

REM 651-5 Project Evaluation and Non-market Valuation Methods
This course extends environmental and ecological economics concepts to the field of project appraisal and non-market valuation. Includes the methods and limitations of standard cost-benefit analysis (CBA), as well as new techniques in the valuation of non-market environmental resources and ways to incorporate considerations such as the depletion of natural resources in project work. The course concludes with treatment of a number of alternatives to CBA, including multi-attribute techniques and the precautionary principle. Prerequisite: ECON 200, REM 621, or permission of instructor.

REM 652-5 Community Tourism Planning and Development
The course critically examines approaches employed by communities incorporating tourism into their development strategies. Techniques for optimizing the resource potential of communities from economic, social, cultural and environmental perspectives are explored with a view toward developing policies for 'appropriate' community tourism. Prerequisite: permission of instructor.

REM 655-5 Water Planning and Management
Evaluation of theoretical models and management experiences; federal, provincial and international institutional arrangements and jurisdictional responsibilities; emerging problems and opportunities. This is primarily a field course in which water and environmental management systems in British Columbia are compared with those in the states of Washington, Oregon, and California.

REM 658-5 Energy and Materials Systems Modeling
Theory, background, and practical experience in the use of a range of techniques for policy modelling of energy and materials flows in society with the aim of demonstrating how more environmentally and socially sustainable trajectories can be achieved. Techniques include: simulation modelling, optimization modelling, econometric and other forms of parameter estimation, input-output modelling, game playing models, and integrated systems models. Prerequisite: Permission of Instructor.

REM 660-5 Special Topics in Natural Resources Management
Special topics in areas not currently offered within the offerings of the resource and environmental management program.

REM 661-5 Special Topics in Resources Management
Special Topics in areas not currently offered within the offerings of the resource and environmental management program.

REM 662—663-5 Special Topics in Resource Management
Special Topics in areas not currently offered within the offerings of the resource and environmental management program.

REM 664-5 Directed Studies
Special topics in areas not currently offered within the offerings of the resource and environmental management program.

REM 670-5 Introduction to Forestry
Examines the theory and practice of forest management based on an understanding of the linkages between forest ecosystem dynamics, economics, policy and social management. Principles are illustrated with reference to contemporary forestry issues. Prerequisite: REM 611 or permission of instructor.

REM 671-5 Forest Ecology
Structure, function and development of forest ecosystems, Population, community, ecosystems and landscape approaches are used to enable students to understand the biology and management of forests in terms of the processes driving spatial and temporal dynamics.

REM 690-0 Practicum I
First semester of work experience in the School of Resources and Environmental Management’s Co-operative Education Program.

REM 691-0 Practicum II
Second semester of work experience in the School of Resources and Environmental Management’s Co-operative Education Program. Prerequisite: students must have completed at least one semester’s courses and permission of REM’s co-op co-ordinator.

REM 698-3 Field Resource Management Workshop
An intensive field course introducing students to the diversity of issues and viewpoints concerning management of natural resources. Problem areas will include forestry, mining, fisheries and wildlife management, energy, recreation and land use planning.

REM 699-10 Research Project
A research project dealing with a specific interdisciplinary problem in resource management, administration or allocation. The study must result in the preparation of a formal paper and the presentation of a seminar.

REM 801-5 Principles of Research Methods
Students will develop skills and insight into the design, implementation and analysis of interdisciplinary research in natural resource and environmental management. This will help prepare students to carry out their own research projects. Students who entered REM during or prior to the Fall 1994 semester and who have received credit for any one of MRM 601, 611 or 621 may not take REM 801 for credit.

REM 802-5 Research Approaches for REM PhD Students
This course is designed for all REM PhD students, although considerable course material may be of interest and value to other REM students. The course will emphasize preparing PhD students for their breadth comprehensive exams by discussing and evaluating various viewpoints in published debates related to the three topic areas of comprehensive exams: resource and environmental economics, policy and planning and environmental science. The course will also cover planning and carrying out the PhD research, as well as effectively communicating research results.

REM 899-10 PhD Thesis
Science SCI
Faculty of Science
SCI 300-3 Science and its Impact on Society
The impact of science in our society. This course introduces upper level university students to all facets of science and their resulting technologies. Governmental policies often involve far-reaching scientific/technological decisions and this course attempts to provide a scientific perspective to help
achieve rational and effective policies. Prerequisite: 60 credit hours. Not open to students in the Faculty of Science or the Schools of Computing Science, Engineering Science and Kinesiology.

**Sociology and Anthropology SA**

**Faculty of Arts and Social Sciences**

**SA 100-4 Perspectives on Canadian Society (SA)**
An examination of Canadian society from the perspective of the social sciences — an introduction both to the nature of Canadian society and to the use of sociological and anthropological concepts applied to the analysis of modern societies in general. This course is meant to appeal to those who specifically wish to expand their knowledge of Canadian Society, and also to those who may be considering further work in sociology and anthropology. Topics to be considered include class structure, the nature of Canada’s population, regional variation, gender relations, multiculturalism, native issues.

**SA 101-4 Introduction to Anthropology (A)**
An introduction to the study of human social and cultural life from an anthropological perspective. The course will explore the scope and nature of the discipline of anthropology through study of selected cases drawn from technologically simple communities and complex modern industrial societies. Students with credit for SA 170 may not take SA 101 for further credit.

**SA 141-0 Sociology and Anthropology Practicum I**
This is the first semester of work experience in the Co-operative Education Program in sociology and anthropology. It is meant to be exploratory in nature. Prerequisite: 29 semester credit hours with a minimum cumulative GPA of 2.75 including SA 101 or 150 and SA 255. Students should apply to the Faculty of Arts co-op co-ordinator by the end of the third week of the semester preceding the employment semester.

**SA 150-4 Introduction to Sociology (S)**
The study of basic concerns of sociology, such as social order, social change, social conflict and social inequality.

**SA 201-4 Anthropology of Contemporary Life (A)**
An introduction to the anthropological perspective as applied to contemporary social and cultural issues and settings. Topics may include: urban anthropology; work and leisure; medical anthropology; and problems of policy relevant research. Students with credit for SA 291 may not take SA 201 for further credit. Recommended: SA 101.

**SA 203-4 Violence in War and Peace (SA)**
A critical examination of the relationship between violence and structural inequalities. Focus will be on different forms that violence assumes in war and peace and how acts of violence are remembered, collectively denied or misrecognized. Particular case studies may include colonization of indigenous people, Holocaust, South African Apartheid, India’s Partition, the genocide in Rwanda, the Israeli-Palestinian conflict, 9/11 and its aftermath along with everyday suffering, including gender violence. As well, special attention will be given to anthropological witnessing. (lecture/tutorial) Prerequisite: SA 101 or SA 150.

**SA 218-4 Illness, Culture and Society (SA)**
The study of socio-cultural factors related to health and illness. Focus will be on patterns of health seeking activity, systems of health care, causal and symbolic factors involved in physical and mental illness, and the medicalization of life in contemporary society. The disciplinary focus of the course will vary from semester to semester. Prerequisite: SA 101 or 201 or 150. Students with credit for SA 460 when offered as Medical Anthropology may not take SA 218 for further credit.

**SA 231-4 Sociology of Families (S)**
An examination of families and households in social, cultural, political and economic context. This course focuses on the diversity of family forms in contemporary societies (particularly Canada) in relation to various social institutions and processes, including demographic trends, ideology, gender inequality, the economy, the state and social policies. Prerequisite: SA 150.

**SA 241-0 Sociology and Anthropology Practicum II**
This is the second semester of work experience in the Co-operative Education Program in sociology and anthropology. Building on the experiences of the first employment semester, this semester will provide a work experience that integrates theory and practice of the social sciences. Prerequisite: successful completion of SA 141 and normally the completion of at least 45 semester credit hours with a minimum cumulative GPA of 2.75. Students should apply to the Faculty of Arts co-op co-ordinator by the end of the third week of the semester preceding the employment semester.

**SA 245-4 Cultures and Images (A)**
This course introduces students to the principles and practices of visual anthropology through exploring the creation, circulation, and consumption of images among and between members of diverse cultures in the contemporary world. Topics to be covered include the use of photographs, film and video as a tool in ethnographic research; the use and implications of new information technologies; the ‘reading’ of photographs, film and video from an anthropological perspective; the emergence and development of non-Western visual media. Prerequisite: SA 101.

**SA 250-4 Introduction to Sociological Theory (S)**
An account of sociological theory, outlining the main ideas and concepts of the principal schools of thought. Prerequisite: SA 150.

**SA 255-4 Introduction to Social Research (SA)**
An introduction to the conduct of sociological and anthropological research. Topics covered include: the relationship between theory and research, concept formation, operationalization, exploratory studies, hypothesis generation and testing, data collection techniques within both sociology and anthropology, the assessment of causality, the critical evaluation of research on both theoretical and methodological grounds, the definition of research problems, and ethical issues in social research. Prerequisite: SA 101 or 150. Students with credit for POL 213 may not take SA 255 for further credit.

**SA 260-4 Individual and Society (S)**
An examination of how self and identity (e.g. race, class, gender, sexual orientation) are socially derived within contemporary Western cultures and of the ways that individuals shape their social environment. Prerequisite: SA 150.

**SA 275-4 Asian Societies (SA)**
An introduction to the societies of a selected region of Asia. The course will regularly be offered with a focus on Southeast Asia, but from time to time during other semesters will also be offered with a focus on East Asia or South Asia. Prerequisite: SA 101 or 150.

**SA 286-4 Aboriginal Peoples and British Columbia: Introduction (A)**
Investigates contemporary social organization, cultural expression, and political representation among Aboriginal peoples of British Columbia within an ethnohistorical framework. Topics may include: land rights, law, gender relations, inter-cultural relations; policy studies in education, health, justice, social and economic development; indigenous knowledge; Aboriginal art, media and performance. Emphasis may vary from semester to semester. Students with credit for SA 140 may not take SA 286 for further credit. Recommended: SA 101.

**SA 292-4 Special Topics in Sociology (S)**
An introduction to the discipline and perspective of sociology through analysis of an issue, process or problem with topical interest or general relevance. Recommended: SA 101.

**SA 293-4 Special Topics in Anthropology (A)**
An introduction to the discipline and perspective of anthropology through analysis of an issue, process or problem with topical interest or general relevance. Recommended: SA 101.

**SA 294-4 Special Topics in Sociology and Anthropology (SA)**
Topical exploration of interdisciplinary issues in sociology and anthropology. (lecture/tutorial)

**SA 300-4 Canadian Social Structure (SA)**
An analysis of the social institutions and structure of Canadian society. The focus of the course will vary from semester to semester, but typically it will examine different theoretical approaches to the study of Canadian and, from these, develop a framework for the analysis of Canadian social institutions and class structure. Prerequisite: SA 150 and one second year sociology (S) or sociology/anthropology (SA) course. Recommended: SA 100.

**SA 301-4 Contemporary Ethnography (A)**
A consideration of key themes in contemporary anthropology. This course addresses theoretical and methodological questions by examining the work of contemporary anthropologists conducting research in diverse locations around the world. Prerequisite: SA 101 and one of SA 201, 263, 286 or 293. Students with credit for SA 370 may not take SA 301 for further credit.

**SA 302-4 Global Problems and the Culture of Capitalism (SA)**
An introduction to the political economy and culture of capitalism in relation to global problems. Case studies may focus on issues of population, famine, disease, poverty, environmental destruction, social inequality, and nation-state violence. Resistance, rebellion and new social movements in response to these problems will also be addressed. Highly Recommended: SA 101 or 150. Students who took SA 294 in 2003-1, 2004-1 and 2004-2 may not take SA 302 for further credit.

**SA 304-4 Social Control (S)**
This course examines how the organization of control (formal and informal) affects both individuals and society. It will investigate how control takes form, how it functions, the ideologies supporting it, and the resistance it produces. We will ask the following questions: who are the agents of social control; who or what do they control; and how do they control? Prerequisites: SA 150 and one second year sociology (S) or sociology/anthropology (SA) course.

**SA 315-4 New Information Technology and Society (SA)**
Explores the new social spaces and social practices fostered by new information technology. Special attention will be paid to who is making decisions about what technologies to adopt and how, what social changes are resulting, and who benefits and who loses. A significant portion of activity in this course will involve direct engagement with new information technology. Recommended: SA 150.

**SA 316-4 Tourism and Social Policy (SA)**
An examination of tourism from the perspectives of sociology and anthropology, focusing primarily upon the social and cultural impacts of tourism and the social policy implications of tourism development in
different societies. Prerequisite: SA 150 and one second year sociology (S) or sociology/anthropology (SA) course.

SA 318-4 The Anthropology of Medicine (A) Explores the role of biomedicine in society and culture through inquiry into the social and ideological organization of health and healing. Special attention will be paid to how biomedical categories structure experiences of the body, how means of life and death are shaped through medical interventions, and how social relations organize the delivery of biomedical technologies. (Seminar) Prerequisite: SA 101 or 150. Highly recommended: SA 201 and 218.

SA 319-4 Culture, Ethnicity and Aging (SA) An examination of the effects of culture and ethnicity on the aging process and the treatment of the aged. Although the orientation of the course is cross-cultural and comparative, particular emphasis will be placed on the social aspects of aging among various ethnic groups in contemporary Canada. Prerequisite: SA 101 or 150 and either one second year sociology (S) or sociology/anthropology (SA) course, or acceptance into the general program.

SA 320-4 Population and Society (SA) A study of the reciprocal influence of population and social structure and demographic attempts to use population variables in social explanation; a discussion of cultural and institutional influences on human behavior with respect to fertility, mortality and migration. Prerequisite: SA 150 and one second year sociology (S) or sociology/anthropology (SA) course.

SA 321-4 Social Movements (S) A study of the sources, development and effects of social movements in transitional and modernized societies. Specific types of movements will be analysed. Prerequisite: SA 150 and one second year sociology (S) or sociology/anthropology (SA) course.

SA 322-4 Sociology of Religion (S) An examination of the development and social impact of religious institutions in modern industrial society. Consideration will be given to the classical theoretical approaches to the sociology of religion, and further topics which may be considered include: denominational religion in Britain and North America; the secularization thesis; the relationship between science and religion; and the organization, structure and social appeal of sectarian groups in contemporary society. Prerequisite: SA 150 and one second year sociology (S) or sociology/anthropology (SA) course.

SA 323-4 Symbol, Myth and Meaning (A) An examination of myth, symbolism, ritual and cosmological systems. Anthropological theories of magic, possession, witchcraft, healing and religious movements analyzed in ethnographic context. Prerequisite: SA 101 and one of SA 201, 263, 286 or 293.

SA 325-4 Political Sociology (S) An examination of the relations of power and authority. This course will analyze the interrelations of family, church, class, interest groups, etc., particularly as they influence and are influenced by the state. Theoretical attention will be paid to power relations in the social structures of government will form the context for this analysis. The course may also focus on broad theoretical questions of contemporary political interest. Prerequisite: SA 150 and the second year sociology (S) or sociology/anthropology (SA) course.

SA 326-4 Ecology and Social Thought (S) An examination of recent social thought that is concerned with environmental and ecological themes. It will address a selection from the following themes: technology evaluation; technology and science as ideology; ecology and social inequality; the concepts of ecosystem, environment and wilderness; the self-world relationship; politics of environmental use; environment and the economy. Prerequisite: SA 250 or equivalent second year course in a cognate discipline.

SA 327-4 Sociology of Knowledge (S) An examination of sociological theories concerning the interaction of social structures and meaning and belief systems. Prerequisite: SA 150 and one second year sociology (S) or sociology/anthropology (SA) course. Recommended: SA 250

SA 331-4 Politics of the Family (SA) A sociological examination of the contested nature of contemporary domestic and intimate relations. This course will focus on debates arising from equality movement politics (e.g. gender, sexuality, race). Prerequisite: SA 150 and one second year sociology (S) or sociology/anthropology (SA) course.

SA 332-4 The Anthropology of Childhood (A) A cross-cultural examination of the social and cultural relations that shape childhood in different settings. Topics to be considered include: the social definition of childhood and child rearing; the institutional arrangements established for children and youth; the role children have on children, families, and society; the social construction of child and youth cultures. Prerequisite: SA 101 and one of SA 201, 263, 286 or 293.

SA 333-4 Schooling and Society (S) A sociological analysis of the nature of the education system and its relationship to major social institutions in Western industrial societies, in particular Canada. Aspects studied may include: the classroom, teachers, student culture, bureaucratization, inequality (e.g. gender), employment, and social policy. Prerequisite: SA 150 and one second year sociology (S) or sociology/anthropology (SA) course.

SA 335-4 Gender Relations and Social Issues (S) A sociological study of the position of women and men in major social institutions in western industrial societies, in particular Canada. Social institutions that may be examined include: the family, education, the economy, the polity, law, and the mass media. Particular attention will be paid to social policy issues. Prerequisite: SA 150 and one second year sociology (S) or sociology/anthropology (SA) course. Students with credit for SA 292 (when offered as gender relations) or WS 308 may not take SA 335 for further credit. Recommended: WS 203.

SA 337-4 Sexuality and Society (SA) The categories that organize our understandings of sex, gender and sexuality have powerful social and cultural effects and roles in organizing social relations in western society. Social activists and academics contest the naturalness of these categories - particularly that of the binary opposition between male and female, and related assumptions about sexuality and sexual orientation. This course encompasses a range of perspectives on sex/gender, identity, sexuality, and the relationship between the two. These perspectives include feminist, lesbian and gay, and queer and trans and their relationship to major understandings of sex/gender and sexuality. Prerequisite: SA 250, or consent of instructor.

SA 340-4 Social Issues and Social Policy Analysis An examination of how sociological and anthropological theories and methods can be applied to the examination of social problems and issues which become the object of social policy. A central concern of the course is the question of how social issues are defined as problematic. Particular attention will be given to gender, ethnicity, class and generation. Substantive examples of social policy issues will be selected from a number of fields. Prerequisite: SA 150 and either SA 101 or one other lower division (A) course.

SA 341-0 Sociology and Anthropology Practicum III This is the third semester of work experience in the Co-operative Education Program in sociology and anthropology. The student will be placed in a specialized area of the student's choice. Prerequisite: successful completion of SA 241 and normally the completion of at least 61 semester hours with a minimum cumulative GPA of 2.75. Students should apply to the Faculty of Arts co-op co-ordinator by the end of the third week of the semester preceding the employment semester.

SA 345-4 Race, Immigration and the Canadian State (SA) An introduction to critical perspectives on the social construction of race, nation building and transnational migration, with an emphasis on state policies and the experiences of immigrants. The course will cover a review of colonialism and the construction of racialized labor market. Core topics may include: racialization of space, anti-racist feminist thought, immigration policy, settlement services, multiculturalism, citizenship, racial profiling, diasporas, and refugees. Comparative material will be used to complement the Canadian focus. (Seminar) Prerequisite: SA 101 or 150, and SA 201 or 202.

SA 350-4 Classical Sociological Thought (S) An examination of aspects of the work of one or more of the 19th or early 20th century sociological theorists. Prerequisite: SA 250.

SA 351-4 Classical Marxist Thought (S) A detailed study of classical Marxist social thought. Prerequisite: SA 250.

SA 352-4 Games, Sports and Cultures (A) An anthropological examination of games and sports in cross-cultural perspective. Particular attention will be given to the social construction of games and athletic activities as well as the cultural, political and aesthetic meanings attached to these. Topics that may be examined include: the embodiment of culture in sporting activities; the impact of inter-cultural contact and globalization on games and sport; the shaping of gender, class and ethnic identities through sport involvement; appropriate methodologies for producing sport ethnographies. Prerequisite: one of SA 101 or 201, or consent of instructor.

SA 353-4 Sociology of Sport (S) A sociological examination of sport focuses on the role of this important set of institutions and activities in shaping social relations and identities about difference and identity. Sport has a long history of naturalizing racial and gender differences in such a way as to reinforce and reflect social inequality more broadly. Racial segregation in sport (at least in formal legal terms) is no longer considered acceptable in western societies or in the Olympic movement at the global level. But the power of sport in reinforcing and naturalizing racial inequality continues while the naturalness and inevitability of sex segregation in sport remains largely unchallenged. This course will explore the relationships between sport and social inequality, sport and nationalism, and sport and the economy. (Seminar) Prerequisite: SA 101 or 150. Students who took SA 216 or SA 315 (when offered as Society of Leisure) may not take SA 353 for further credit.

SA 355-4 Quantitative Methods (SA) An examination of measurement issues within sociological and anthropological research, focusing on the logical and conceptual construction and interpretation of tables, and an examination of the uses and abuses of statistics. Through an introduction to ‘hands on’ use of the computer, this course emphasizes the applications, rather than the
Graduate courses are numbered 500-999

**SA 356-4 Ethnography and Qualitative Methods (SA)**
An examination of qualitative field methods, including participant observation, interviewing, archival research, cross-cultural research, life histories, network analysis, mapping, and ethical problems of fieldwork. Prerequisite: SA 255 and 101 or 201.

**SA 357-4 Survey Methods (SA)**
Students will study a research problem suited to a quasi-experimental (survey) design, and perform all the research steps needed for its completion. Prerequisite: SA 255. Recommend: SA 355.

**SA 358-4 The Philosophy of the Social Sciences (SA)**
An analysis of the nature of explanation in the social sciences: ‘mind’ and action, positivist and interpretive modes of explanation, sociological and historical explanation, objectivity, forms of relativism, the concept of rationality. Prerequisite: SA 150 and one second year sociology (S) or sociology/anthropology (SA) course. Recommended: SA 250 and 255.

**SA 360-4 Special Topics in Sociology and Anthropology (SA)**
A seminar exploring a topic not regularly offered by the department. The disciplinary designation will change to reflect specific topics; refer to each semester's course outline. (sem) Prerequisite: SA 101 and 150, plus one second year sociology (S), anthropology (A) or sociology/anthropology (SA) course. Students who took SA 460 in 03-3 and SA 463 in 03-4 may not take this course for further credit.

**SA 361-4 Gender, Colonialism, Post-colonialism (SA)**
An ethnographically grounded study of the social and cultural construction of gender, and the ways in which it is experienced and embodied in the colonial and post-colonial world. The socio-historical conjunctures affecting women and men across the world will be explored at multiple sites: health, economy, media, law, development, policy, among others. Central to these concerns is the understanding of gender as a process and identity formulated at intersecting fields of knowledge and power. (sem) Prerequisite: SA 101 or 150. Highly recommended: SA 203. Students who have taken SA 435 prior to 2005-3 or 463 prior to 1999 may not take SA 361 for further credit.

**SA 362-4 Society and the Changing Global Divide: Latin America (SA)**
An examination of the social and political implications of the global economy. Topics to be considered include the influence of neo-liberal economics, the decline of the national welfare state, transnational political agencies and public policy, the internationalization of culture, the global labor market, the ‘world city’ hypothesis, ethnic resurgence and alternatives to these developments. (sem) Prerequisite: SA 150 and one second year sociology (S) or sociology/anthropology (SA) course.

**SA 363-4 Process of Development and Underdevelopment (SA)**
An examination of sociological and anthropological theories of development and underdevelopment as applied to the Third World. The nature and consequences of world system linkages, colonialism and decolonization; patterns of social change in selected societies and regions. Prerequisite: SA 250 or 101 and one of SA 201, 263, 286 or 293. Recommended: SA 263.

**SA 364-4 Urban Communities and Cultures (SA)**
Anthropological approaches to urbanization, the nature of the city as a social system, and urban cultures and lifestyles. Prerequisite: SA 101 and one of SA 201, 263, 286 or 293. Students with credit for SA 464 may not take SA 364 for further credit.

**SA 365-4 Selected Regional Areas (SA)**
An examination of selected aspects of the social structure, culture and the processes of social change in various parts of the world. The focus will vary from semester to semester. Prerequisite: SA 101 and an appropriate second year course or consent of the instructor.

**SA 371-4 The Environment and Society (SA)**
An examination of environmental issues in their social context. Environmental issues are on the leading edge of contemporary public concern and public policy debates. This course will examine such issues as the relationship between social organization and mode of subsistence, the politics of hunger, and the way in which human societies in their particular social, historical, and cultural contexts view and interact with the natural world. Content may differ from semester to semester. Prerequisite: SA 150 and one 200 level sociology (S) or sociology and anthropology (SA) course. Recommended: SA 250 and 255.

**SA 386-4 The Ethnography of Politics (SA)**
An examination of the ways in which ethnographers seek to understand a world experiencing profound changes in the relationships between governments and the societies they govern. Topics to be considered may include (seminar) Prerequisite: Minimum of 90 credit hours including SA 150 and one second year sociology (S) or sociology/anthropology (SA) course. The disciplinary designation will vary from semester to semester. (sem) Prerequisite: SA 101 and one of SA 201, 286 and 293.

**SA 388-4 Comparative Studies of Minority Indigenous Peoples (SA)**
The social and cultural patterns of aboriginal populations within various modern nation-states. Their relations with majority societies and with other indigenous groups across the world. Prerequisite: SA 101 and one or SA 201, 263, 286 or 293.

**SA 392-4 Latin America (SA)**
An introduction to the peoples and institutions of Latin America in historical and contemporary perspective. Emphasis will be placed on patterns of similarity and diversity. Prerequisite: SA 101 and one of SA 201, 263, 286 or 293. Students with credit for SA 391 may not take this course for further credit. This course is identical to LAS 392 and students cannot take both courses for credit.

**SA 396-4 Selected Regional Areas (SA)**
An examination of selected aspects of social structure, culture and processes of social change in a specific regional area. The focus will vary from semester to semester. (sem) Prerequisite: SA 101 and one of SA 201, 263, 286 or 293.

**SA 400-4 Canadian Ethnic Minorities (SA)**
An analysis of specific Canadian ethnic minorities. The groups will be studied in the context of the wider literature of race relations and ethnicity. (sem) Prerequisite: Minimum 90 credit hours including SA 150 and one second year sociology (S) or sociology/anthropology (SA) course, or consent of instructor. Recommended: SA 203 and 300.

**SA 401-4 The Politics of Culture in Contemporary Societies (A)**
Anthropological explorations of the relationship between political, cultural, and social processes in contemporary societies. Topics may include: social organization and symbolic systems; the use of political rhetoric and symbolism; the mobilization of social, cultural and political constituencies; the articulation of political processes between local, national, and international levels. (sem) Prerequisite: Minimum of 90 credit hours including SA 301, or consent of instructor. Recommended: SA 356.

**SA 402-4 The Practice of Anthropology (A)**
An examination of the ways in which anthropology and ethnography may be used to affect action in the world. Topics may include: advocacy anthropology; the development and practice of applied anthropology; the emergence of anthropology and ethnography and the arts. (seminar) Prerequisite: Minimum of 90 credit hours including SA 101 and one of SA 201, 263, 286 or 293, or consent of the instructor. Recommended: at least two upper division courses in anthropology.

**SA 403-4 Selected Topics in Latin American Economy and Society (LAS)**
This seminar will be taught co-operatively by LAS associated faculty or by a visiting professor. A topic will be chosen which can be examined profitably from a multidisciplinary perspective. Prerequisite: Minimum of 90 credit hours including LAS 200, or consent of instructor. This course is identical to LAS 403 and students cannot take both courses for credit.

**SA 416-4 Sociology of Art Forms (SA)**
This course may focus variously on one or all of the following: the social origins and functions of art, sociological theories of aesthetics, and contemporary issues in art, such as the fate of art in modern society, popular culture, mass media, ideology in art. (sem) Prerequisite: Minimum of 90 credit hours including SA 150 and one second year sociology (S) or sociology/anthropology (SA) course, or consent of instructor.

**SA 418-4 International Health: Global Policies and Local Realities (SA)**
An investigation of the social, cultural, and political issues that contribute to problems of ill-health in resource-poor countries and the major efforts in international public health to address these problems. It explores the application of knowledge about social, and especially gender relations in international health, with particular attention to local perspectives and grassroots initiatives. Institutional frameworks intended to promote health development are examined in historical and contemporary perspective through case studies on topics such as: malaria, population control, maternal health, HIV/AIDS, and tuberculosis. Prerequisite: 90 credit hours, which must include SA 101 or 150. Highly recommended: SA 218, 302 and 318.

**SA 420-4 Sociology of Aging (SA)**
The structural and behavioral implications of aging. Topics included will be: demographic aspects of aging; the relationship of aging to political, economic, familial and other social institutions; the psychological significance of aging. (lecture/seminar) Prerequisite: Minimum 90 credit hours. Students who took SA 420 in 2003-4 and one second year sociology (S) or sociology/anthropology (SA) course, or acceptance into the diploma program in gerontology, or by consent of instructor. This course is identical to GER 420 and students cannot take both courses for credit.

**SA 429-4 Sex, Work, and International Capital (SA)**
Through a program of focused readings, films, and case studies, this course examines the experiences of women in the Third World in relation to the global economy and reorganization of states and cultures. The course challenges conventional ways of thinking about everyday life in households and workplaces, and emphasizes that issues which may seem specifically third World-based are shared by many around the world. An awareness of this commonality helps us assess the balance of structural constraints and opportunities, and stimulates a discussion on the organization of alternative ways of living. Prerequisite: 90 credit hours which must include SA 150. Students who took SA 463 in 2003-1, SA 460 in 2003-3, and
SA 360 in 2004-3 may not take this course for further credit.

SA 430-4 States, Cultures and Global Transitions (SA)
Through a program of focused readings, case studies, and films, this course offers a new perspective on the study of globalization. It balances classical themes with contemporary approaches to global processes of economic, political, and cultural transformation. The course tackles such topics as the material aspects of cooperation and coercion, class relations in structures of capital accumulation and global governance, and cultural dynamics. Alternatives to Euro-American centricism are explored through the examples of citizenship, cultural politics, ethnic and religious conflicts, human rights, indigenous rights, and women's rights. Prerequisite: 90 credit hours which must include SA 150. Highly recommended: SA 302. Students who took SA 463 in 2004-3 may not take this course for further credit.

SA 441-0 Sociology and Anthropology Practicum IV
This is the last semester of work experience in the Co-operative Education Program in sociology and anthropology. The work experience will require a high level of expertise in both theoretical conceptions and practical endeavors. Prerequisite: successful completion of SA 341 and normally the completion of at least 77 semester credit hours with a minimum cumulative GPA of 2.75. Students should apply to the Faculty of Arts co-op co-ordinator by the end of the third week of the semester preceding the employment semester.

SA 447-4 Selected Issues in Social Policy Analysis (SA)
An advanced seminar devoted to an in-depth examination of an issue or topic in the field of social policy analysis which is not regularly offered by the department. (Seminar) Prerequisite: Minimum of 90 credit hours including SA 150 and one second year sociology (S) or sociology/anthropology (SA) course (permission of the instructor). Recommended: SA 340.

SA 450-4 Advanced Sociological Theory (S)
A senior seminar on current perspectives in sociological theory. Emphasis will differ from semester to semester. Prerequisite: SA 350, 90 credit hours, a GPA of at least 3.25 and consent of the instructor.

SA 451-4 Issues in Anthropological Theory (A)
A senior seminar on current perspectives in anthropological theory. Emphasis will differ from semester to semester. Prerequisite: SA 301, 90 credit hours, a GPA of at least 3.25 and consent of the instructor.

SA 455-4 Special Topics in Applied Social Research (SA)
An advanced seminar devoted to special topics in applied social research. (Seminar) Pre-requisite: Minimum of 90 credit hours including SA 255 and SA 355 or 356, or consent of instructor.

SA 460-4 Special Topics in Sociology and Anthropology I (SA)
An advanced seminar devoted to an in-depth examination of a topic not regularly offered by the department. The disciplinary designation will change to reflect specific topics; refer to each semester's course outline. (Seminar) Prerequisite: Minimum of 90 credit hours or consent of instructor. Recommended: at least two upper division courses in sociology and/or anthropology. Students who took SA 360 in 04-3 and SA 463 in 03-1 may not take this course for further credit.

SA 463-4 Special Topics in Development Studies (SA)
An examination of processes of social change in selected Third World societies. Topics will change from semester to semester, but may include: liberation movements and colonialism, the comparative study of post-revolutionary societies; the persistence, transformation and disappearance of contemporary paeanitics; directed change programs. (Seminar) Prerequisite: Minimum of 90 credit hours including SA 250 or 101 and one of SA 201, 263, 286 or 293, or consent of instructor. Recommended: SA 363.

SA 472-4 Anthropology and the Past (A)
Anthropologists frequently turn to historical documents (traveller's reports, missionary archives, etc.) in order to reconstruct the nature of past societies; likewise, every society has a sense of its own past and represents it in its own way. This course examines the relation between history and anthropology. Content may include: the use of historical material in anthropological research; construction of traditional knowledge as a cultural process; history and the politics of culture; the relation between individual and collective memory. (Seminar) Prerequisite: Minimum of 90 credit hours including SA 301 or 350, or consent of the instructor.

SA 483-4 Political Economy of Latin American Development (LAS)
This is a survey course which introduces students to the various theoretical approaches which have been used since the 1950's to understand the political economy of Latin American development. It deals with some of the classic theories of modernization, dependency, world systems, and modes of production analysis. The last unit of the course is devoted to the most contemporary issues of Latin American development, such as the agrarian question, women and development, problems of urbanization and the informal sector. (Lecture/seminar) Prerequisite: Minimum of 90 credit hours including LAS 200 or permission of the instructor. This course is identical to SA 328 and 428, LAS 318, 428 and 483, POL 383 and 483, and students cannot take more than one of these courses for credit.

SA 486-4 Aboriginal Peoples and British Columbia: Advanced Seminar (A)
An opportunity for upper graduates to participate in a seminar concentrating on particular subjects of interest in the fields of social and cultural research among Aboriginal peoples in British Columbia. The course will focus on special topics that will differ from semester to semester. This may include: historical ethnography; policy issues and debates; economic and social development; political and legal relations; gender and generational relations; health and healing; ethnographic film; arts, literature and popular culture; cultural performance; oral tradition; exhibition and representation; cultural property. (Seminar) Prerequisite: Minimum of 90 credit hours including SA 101 and one of SA 201, 263, 286 or 293, or consent of the instructor. Recommended: SA 286.

SA 496-4 Directed Readings in Anthropology (A)
Directed readings in a selected field of study under the direction of a single faculty member. A paper will be required. Prerequisite: Minimum of 90 credit hours including SA 101 and one of SA 201, 263, 286 or 293, or consent of the instructor. Students with credit for SA 496 may not take SA 497 for further credit.

SA 497-4 Directed Readings in Sociology (S)
Directed readings in a selected field of study under the direction of a single faculty member. A paper will be required. Prerequisite: Minimum of 90 credit hours including SA 150 and one second year sociology (S) or sociology/anthropology (SA) course, or consent of instructor. Students with credit for SA 496 may not take SA 497 for further credit.

SA 498-8 Field Study in Sociology and/or Anthropology (SA)
Advanced field project in a research setting. Admission dependent on availability of appropriate field placements and departmental supervisory capacity. Prerequisite: completion of all major course requirements with the exception of SA 301 for anthropology majors and SA 350 for sociology majors, which may be taken concurrently.

SA 499-8 Honors Essay (SA)
An honors essay to be written under the direction of a member of faculty, a copy of which is to be permanently lodged with the department. On completion, the essay is to be defended orally in a departmental seminar.

SA 840-2 Graduate Seminar
SA 841-0 Graduate Seminar
SA 850-5 Advanced Sociological Theory
SA 853-5 Readings in Sociology 1
SA 854-5 Readings in Sociology II
SA 857-5 Research Design Seminar
SA 870-5 Advanced Anthropological Theory
SA 871-5 Readings in Anthropology I
SA 872-5 Readings in Anthropology II
SA 886-5 Selected Problems-Social Analysis

SA 890-0 Practicum I
Prerequisite: completion of core MA degree requirements SA 850 or 870, and SA 857 plus one (thesis option) or two (extended essay or research project option) of the following: SA 863, 854, 871, 872 and 886 (or equivalent) with a minimum GPA of 3.0. The recommendation of the student's supervisory committee and the approval of the departmental graduate program committee also is required.

SA 891-0 Practicum II
Prerequisite: the student must have completed SA 890.

SA 892-0 Practicum III
Prerequisite: SA 891 and departmental approval.

SA 896-6 MA Extended Essays
SA 897-6 MA Research Project
SA 898-6 MA Thesis
SA 899-6 PhD Thesis

Spanish SPAN
Faculty of Arts and Social Sciences
Department of Linguistics
Language Training Institute

SPAN 102-3 Introductory Spanish I
Acquisition of spoken fluency and elementary reading facility. This course is for all students who have not previously taken Spanish and for those whose proficiency in Spanish is not judged adequate for more advanced courses.

SPAN 103-3 Introductory Spanish II
Continuation of the work of SPAN 102; it should be taken, wherever possible, in the semester immediately following SPAN 102. Prerequisite: SPAN 102 or equivalent.

SPAN 201-3 Intermediate Spanish I
Emphasis on oral command, and accurate and idiomatic expression. Prerequisite: SPAN 103 or equivalent.

SPAN 202-3 Intermediate Spanish II
Continues the work of SPAN 201 with emphasis on oral command and writing skills. Reading of selected texts will be introduced to expose the students to Hispanic culture. Prerequisite: SPAN 201.
SPAN 303-3 Spanish Composition, Translation and Conversation

Conversation and composition on selected topics with emphasis on correct spelling, sentence and paragraph structure. Prerequisite: SPAN 202 or equivalent.

SPAN 304-3 Advanced Spanish Composition, Translation and Conversation

Continues the work of SPAN 303 with emphasis on style. Reading and analysis of selected texts will serve as a basis for further practice in oral and written expression. Prerequisite: SPAN 303 or equivalent.

SPAN 305-3 Spanish for Business

This course will provide advanced level students and professionals with the specialized and technical vocabulary needed to function in the business world. Cultural aspects involved in dealing with business in Spanish America will also be studied. Prerequisite: SPAN 202.

Special Arrangements SAR

Faculty of Graduate Studies

SAR 891—897 Special Topics

To be selected by the student and supervisory committee. Variable credit hours: 3, 4, 5, 6.

SAR 898-6 Master’s Thesis

SAR 899-6 PhD Thesis

Statistics STAT

Faculty of Science

STAT 100-3 Chance and Data Analysis

An introduction to chance phenomena and data analysis through simulation and examination of real world contexts including sports, investment, lotteries and environmental issues. Students can choose which of STAT 100 and STAT 101 they take as their first STAT course. However, to receive credit for both STAT 100 and STAT 101, STAT 100 must be taken first. Recommended: This course should not be taken by students who have 60 or more credits. Intended to be particularly accessible to students who are not specializing in Statistics. In addition to regularly scheduled lectures, students registered in STAT 100, 101, 201, 203, 270, and 302 are encouraged to come to the workshops for assistance any time during posted working hours. At the workshop students will have the opportunity to meet the co-ordinator, the teaching assistants and other students, and work together to understand statistics in a friendly and helpful environment. K9516 Shrum Science Centre (inside K9510) Mr. R. Insley.

STAT 101-3 Introduction to Statistics

An introductory course in the collection, description, analysis and summary of data, including the concepts of frequency distribution, parameter estimation and hypothesis testing. To receive credit for both STAT 100 and STAT 101, STAT 100 must be taken first. Students with credit for ARCH 376, BUEC 232 (formerly 332) or STAT 270 (formerly MATH 272 and 371) may not subsequently receive credit for STAT 101-3. Students with credit for STAT 102, 203 (formerly STAT 103), 301, MATH 101 or 102 may not take STAT 101 for further credit. Intended to be particularly accessible to students who are not specializing in Statistics. In addition to regularly scheduled lectures, students registered in STAT 100, 101, 201, 203, 270, and 302 are encouraged to come to the workshops for assistance any time during posted working hours. At the workshop students will have the opportunity to meet the co-ordinator, the teaching assistants and other students, and work together to understand statistics in a friendly and helpful environment. K9516 Shrum Science Centre (inside K9510) Mr. R. Insley.

STAT 201-3 Statistics for the Life Sciences

An introductory course in research methodology and associated statistical analysis techniques for students with training in the life sciences. Prerequisite: 30 credit hours. Students with credit for STAT 101, 102, 203 (formerly 103), 270 (formerly MATH 272) or 301 may not take STAT 201 for further credit. Intended to be particularly accessible to students who are not specializing in Statistics. In addition to regularly scheduled lectures, students registered in STAT 100, 101, 201, 203, 270, and 302 are encouraged to come to the workshops for assistance any time during posted working hours. At the workshop students will have the opportunity to meet with the co-ordinator, the teaching assistants and other students, and work together to understand statistics in a friendly and helpful environment. K9516 Shrum Science Centre (inside K9510) Mr. R. Insley.

STAT 203-3 Introduction to Statistics for the Social Science

An introductory course in descriptive and inferential statistics aimed at students in the social sciences. Scales of measurement. Descriptive statistics. Measures of association. Hypothesis tests and confidence intervals. Topics in areas of probability and Statistics and Anthropology are expected to take SA 255 before this course. Students with credit for ARCH 376, BUEC 232 (formerly 332), or STAT 270 may not subsequently receive credit for this course. Students with credit for any of STAT 101, 102, or 103 may not take this course for further credit. Recommended: a research methods course such as SA 255, CRIM 120, POL 213 or equivalent is recommended. Intended to be particularly accessible to students who are not specializing in Statistics. In addition to regularly scheduled lectures, students registered in STAT 100, 101, 201, 203, 270 and 302 are encouraged to come to the workshops for assistance any time during posted working hours. At the workshop students will have the opportunity to meet with the co-ordinator, the teaching assistants and other students, and work together to understand statistics in a friendly and helpful environment. K9516 Shrum Science Centre (inside K9510) Mr. R. Insley.

STAT 270-3 Introduction to Probability and Statistics

Basic laws of probability, sample distributions. Introduction to statistical applications. Prerequisite: MATH 152 or 155 or 158 must precede or be taken concurrently. Students wishing an intuitive appreciation of a broad range of statistical strategies may wish to take STAT 100 first. In addition to regularly scheduled lectures, students registered in STAT 100, 101, 201, 203, 270, and 302 are encouraged to come to the workshops for assistance any time during posted working hours. At the workshop students will have the opportunity to meet with the co-ordinator, the teaching assistants and other students, and work together to understand statistics in a friendly and helpful environment. K9516 Shrum Science Centre (inside K9510) Mr. R. Insley.

STAT 283-3 Intermediate Probability and Statistics

This course is a continuation of STAT 270. Review of probability models. Procedures for statistical inference from survey results and experimental data. Statistical modeling and building. Elementary design of experiments and regression methods. Introduction to lifetime analysis. Introduction to time series. Introduction to stochastic processes. Prerequisite: STAT 270. Prerequisite or corequisite: MATH 232. This course may not be taken for credit by students who have credit for STAT 330 prior to the Fall 03-03 semester.

STAT 290-3 Selected Topics-Probability and Statistics

Topics in areas of probability and statistics not covered in the regular undergraduate curriculum of the department. Prerequisite: dependent on the topic covered.

STAT 302-3 Analysis of Experimental and Observational Data

The standard techniques of multiple regression analysis, analysis of variance, and analysis of covariance, and their role in experimental and observational studies. Prerequisite: Any STAT course, or BUEC 232, or ARCH 376. Students cannot obtain credit for STAT 302 if they already have credit for STAT 350, or if they are simultaneously registered in STAT 302 and STAT 350. Stat major and honors students may not use this course to satisfy the required number of elective hours of upper division statistics. However, they may include the course to satisfy the total number of required hours of upper division credit.

STAT 330-3 Introduction to Mathematical Statistics


STAT 336-J Job Practicum I

This is the first semester of work experience in a co-operative education program available to statistics students. Interested students should contact their departmental advisors as early in their career as possible for proper counselling. Prerequisite: students must apply and receive permission from the co-op co-ordinator at least one but preferably two semesters in advance. They will normally be required to have completed 45 hours of credit work before they may take this practicum course. The course will be graded on a pass/withdraw basis. A course fee is required.

STAT 337-J Job Practicum II

This is the second semester of work experience in a co-operative education program available to statistics students. Prerequisite: STAT 336 or Job Practicum I from another department. Students must apply and receive permission from the co-op co-ordinator at least one semester in advance. The course will be graded on a pass/withdraw basis. A course fee is required.

STAT 350-3 Linear Models in Applied Statistics


STAT 380-3 Introduction to Stochastic Processes


STAT 390-3 Selected Topics in Probability and Statistics

Topics in areas of probability and statistics not covered in the regular undergraduate curriculum of the department. Prerequisite: dependent on the topic covered.

STAT 400-3 Data Analysis

A problem-based course emphasizing the exploratory aspects of statistical analysis with emphasis on
modern computer-oriented methods. Prerequisite: STAT 350.

STAT 402-3 Generalized Linear and Nonlinear Modelling
A skills oriented unified approach to a broad array of non-linear regression modelling methods including classical regression, logistic regression, probit analysis, dilution assay, frequency count analysis, ordinal-type responses, and survival data. Prerequisite: STAT 302 or STAT 350.

STAT 403-3 Intermediate Sampling and Experimental Design
A practical introduction to useful sampling techniques and intermediate level experimental designs. Prerequisite: STAT 302 or 350. Students with credit for STAT 410 or 430 may not take STAT 403 for further credit. Statistics minor, major and honors students may not use this course to satisfy the required number of elective hours of upper division Statistics. However, they may include the course to satisfy the total number of required hours of upper division credit. Intended to be particularly accessible to students who are not specializing in Statistics, Mathematics and Statistics.

STAT 410-3 Statistical Analysis of Sample Surveys
An introduction to the major sample survey designs and their mathematical justification. Associated statistical analyses. Prerequisite: STAT 350.

STAT 430-3 Statistical Design and Analysis of Experiments
An extension of the designs discussed in STAT 350 to include more than one blocking variable, incomplete block designs, fractional factorial designs, and response surface methods. Prerequisite: STAT 350 (or MATH 372).

STAT 436-0 Job Practicum III
This is the third semester of work experience in a co-operative education program available to statistics students. Prerequisite: STAT 337 or Job Practicum II from another department. Students must apply and receive permission from the co-op co-ordinator at least one semester in advance. The course will be graded on a pass/withdraw basis. A course fee is required.

STAT 437-0 Job Practicum IV
This is the fourth semester of work experience in a co-operative education program available to statistics students. Prerequisite: STAT 436 or Job Practicum III from another department. Students must apply and receive permission from the co-op co-ordinator at least one semester in advance. The course will be graded on a pass/withdraw basis. A course fee is required.

STAT 438-0 Job Practicum V
This is an optional fifth semester of work experience in a co-operative education program available to statistics students. Prerequisite: STAT 437 or Job Practicum IV from another department. Students must apply and receive permission from the co-op co-ordinator at least one semester in advance. The course will be graded on a pass/withdraw basis. A course fee is required.

STAT 450-3 Statistical Theory
Distribution theory, methods for constructing tests, estimators, and confidence intervals with special attention to likelihood methods. Properties of the procedures including large sample theory. Prerequisite: STAT 330.

STAT 460-3 Bayesian Statistics
The Bayesian approach to statistics is an alternative and increasingly popular way of quantifying uncertainty in the presence of data. This course considers comparative statistical inference, prior distributions, Bayesian computation, and applications. Prerequisite: STAT 330 and 350.

STAT 490-3 Selected Topics in Probability and Statistics
Topics in areas of probability and statistics not covered in the regular undergraduate curriculum of the department. Prerequisite: dependent on the topic covered.

STAT 495-3 Directed Studies in Probability and Statistics
Independent reading or research on consultation with the supervising instructor. Prerequisite: written permission of the department undergraduate studies committee.

STAT 602-3 Generalized Linear and Nonlinear Modeling
A methods oriented unified approach to a broad array of nonlinear regression modelling methods including classical regression, logistic regression, probit analysis, dilution assay, frequency count analysis, ordinal type responses, and survival data. A project will be assigned related to the student's field of study. Prerequisite: STAT 302 or 330 or permission of instructor. Open only to graduate students in departments other than Mathematics and Statistics.

STAT 650-5 Quantitative Analysis in Resource Management and Field Biology
The use of statistical techniques and mathematical models in resource management with special emphasis on experimentation, survey techniques, and statistical model construction. Prerequisite: A course in parametric and non-parametric statistics. This course may not be used for the satisfaction of degree requirements in the Department of Statistics and Actuarial Science.

STAT 801-4 Statistics

STAT 802-4 Multivariate Analysis
An advanced course in multivariate analysis. Factor analysis, discriminant analysis, principal components, canonical correlations. Multivariate regression and analysis of variance.

STAT 804-4 Time Series Analysis
An introduction to time series models and their analysis. Both time-domain and frequency-domain techniques will be studied. Prerequisite: STAT 450 or equivalent or permission of the instructor.

STAT 805-4 Non-Parametric Statistics and Discrete Data Analysis
Order statistics, rank statistics, procedures based on the empirical distribution function. Asymptotic efficiencies, goodness-of-fit, contingency tables, log-linear models and further topics will be offered. Prerequisite: STAT 330 or equivalent or permission of the instructor.

STAT 806-4 Lifetime Data Analysis

STAT 811-2 Statistical Consulting I
This course is designed to give students some practical experience as a statistical consultant through classroom discussion of issues in consulting and participation in the department's Statistical Consulting Service under the direction of faculty members or the director.

STAT 812-2 Statistical Consulting II
Students will participate in the department's Statistical Consulting Service under the direction of faculty members or the director.

STAT 870-4 Applied Probability Models
Application of stochastic processes: queues, inventories, counters, etc. Reliability and life testing. Point processes. Simulation.

STAT 880-0 Practicum I
First semester of work experience in the Co-operative Education Program.

STAT 881-0 Practicum II
Second semester of work experience in the Co-operative Education Program.

STAT 882-0 Practicum III
Third semester of work experience in the Co-operative Education Program.

STAT 883-0 Practicum IV
Fourth semester of work experience in the Co-operative Education Program.

STAT 890-4 Statistics: Selected Topics
A course to be team taught by current and visiting faculty and with topics chosen to match the interests of the students.

STAT 894-2 Reading
Statistics

STAT 895-4 Reading
Statistics

STAT 898-8 MSc Thesis/Project

STAT 899-6 PhD Thesis/Project

COURSES

Urban Studies URB
Faculty of Arts and Social Sciences
URB 610-4 Urban Design: Integrating Theory and Practice
This course is an examination of urban design as a discipline that involves the environmental, aesthetic,...
Graduate courses are numbered 500-999

URB 620-4 Urban Communities and Cultures
This course is an introduction to the anthropological and sociological theories of urban sociology in comparative perspective. It includes study of anthropological and sociological approaches to urbanization, the nature of the city as a social system, and urban communities and cultures.

URB 630-4 Urban Development, Planning and Policy
The focus of this course is the evolving relationship between state interventions into the city, and dynamics of urban development. The class emphasizes the historical context to urban planning and policy, with particular reference to the Canadian city.

URB 640-4 Urban Regions and Urban Change
The aim of this course is to develop a perspective on the study of urbanization by applying systematic approaches to specific regional and case contexts. Major theoretical and conceptual themes will be reviewed. Some themes will be placed upon the Canadian experience in order to develop a common ground among members of the course and some emphasis will be also placed upon the United States and Western Europe because of the dominance of those collective urban experiences and literatures. However, members of the course will be expected to develop an interest in a particular region, and a personal bibliography and report to the class on their enquiries. The list of references given to the class may be used for selected items to initiate this personal work. Emphasis will be placed upon individual and/or participatory research.

URB 645-4 Urban Sustainable Development
In this course, we begin to answer the question: What does the idea of sustainable development mean for cities? Using case studies from Vancouver and around the world, we will seek to understand how urban sustainable development innovations are developed, designed, and implemented. Special attention will be given to the importance of sustainable development linkages between urban issues related to economic development, social justice, and environmental conservation and protection.

URB 650-4 Urban Governance
This course is intended to confront students with many of the current administrative, policy, inter-governmental and political challenges of local and regional urban government in the 21st century. It will enable students to critically evaluate the varied nature and development of urban and metropolitan governance through an assessment of differing city-regional forms and responsibilities. The primary emphasis is on: social, economic and political sustainability; ethnic, gender and ecological re-definations of the city; urban fiscal constraints and possibilities; urban governance and local democracy; intergovernmental challenges; urban responses to and re-definations of globalization; case studies of agenda setting and other policy cycle stages. The primary seminar focus is on urban Canada but comparative cases will be drawn from the United States, the EU, Asia and other jurisdictions.

URB 655-4 Global Cities
Students will critically evaluate and apply various approaches and concepts in assessing the phenomenon of the global city. Assessment of current Canadian and comparative cases and settings provides a basis for this examination, as does the various stages of the policy cycle.

URB 660-4 Economy, Land Use and Transportation in Cities
This course is an introduction to urban economics and the economic functions and spatial structure of cities. Cities have high population densities and complex economies based on frequent contacts between people and firms. The course concentrates on how and why cities grow and the influence of public policy on their structure. This course includes examination of the relationships between urban transportation and land use and their influence on such phenomena as urban sprawl.

URB 665-4 Urban Housing Policy
Examination of the roles of housing in an urban society, the evolution of urban housing policy in Canada, the policies that shape the existing housing system, and proposals for modifying housing policies and programs. The role of affordable housing as an essential component of a sustainable community will be emphasized.

URB 670-4 Urban Research Methods
Offers a trip-top-down approach to researching urban public policy problems — from imagining projects, to gathering interpreting data and presenting findings to the public. The emphasis of this program is for students to be able to understand the work of others and design their own studies. In addition, the students are trained in how to apply descriptive statistics such as means, measures of spread and cross-tabulation. Students wishing to deepen their quantitative skills — such as multivariate, qualitative or spatial analysis — will be encouraged to take advanced programs offered in affiliated departments.

URB 680-4 Managing Cities
Examines theories of public management in an urban context — how governments allocate resources, distribute income and regulate public enterprise — in both pure and applied contexts. Taking a ‘champion vs challenger’ approach the first segment of the course describes in detail the dominant theory in public management — new public management — and contrasts this theory with others common to the discipline including traditional approaches, cultural theory, representative bureaucracy and new institutionalism. The theory is illustrated using examples from the municipalities within the Greater Vancouver Regional District and other Canadian and international cities.

URB 685-4 Health Status and Health Policy in Urban Canada
The focus of this course is the distribution of health status within urban centers in Canada, and related health policy developments. The course will emphasize the systematic nature of health status distribution, the historical pattern of health inequality, emerging analyses of the role of ‘place’ in shaping health patterns, housing and health, and attempts to reformulate social policy in urban contexts to address ‘social determinants’ of health inequality in Canada.

URB 690-4 The City in Art, Culture and Politics
The city has long been a subject of, and site for, cultural reflection. This course recognizes that cultural and political ideas are not context-free. The course focuses on modern and postmodern thought and their relation to the evolving city.

URB 693-2 Directed Readings I
Supervised readings in an aspect of urban studies. Registration in URB 693 requires the prior approval of the Urban Studies Graduate Program Committee.

URB 694-4 Directed Readings II
Supervised readings in an aspect of urban studies. Registration in URB 694 requires the prior approval of the Urban Studies Graduate Program Committee.

URB 695-4 Selected Topics in Urban Studies
This course provides an opportunity for students to study one or more urban studies topics that lie beyond the scope of the other courses. This course will normally provide a more research-intensive experience than other graduate urban studies courses.

URB 696-4 Seminar in Urban Studies
In-depth study of two or three areas of urban studies with particular attention to (1) the contributions of various disciplines and (2) the development of a proposal for research to explore a suitable area of particular interest to the student. Where feasible, students will be involved with external organizations in developing their research proposal.

URB 697-4 Research Project
A research project on some aspect of urban studies supervised by a faculty member with the participation of a supervisory committee. Prerequisite: URB 696.

URB 699-2 Research Project Completion
Completion of a research project on some aspect of urban studies supervised by a faculty member with the participation of a supervisory committee. This course is intended for students who do not complete URB 697 within one month of the end of the semester in which they are registered. Prerequisite: URB 697.

Women’s Studies WS
Faculty of Arts and Social Sciences

WS 101-3 Introduction to Women’s Issues in Canada
An interdisciplinary study of current issues related to women’s experiences in Canada. The focus will be on women’s interaction with social structures and public policy and how these differ for different women’s circumstances. Students who have taken WS 100 at SFU may not take WS 101 for further credit.

WS 102-3 Introduction to Western Feminisms
An historical and comparative survey of feminism in Western Europe and North America. Students who have taken WS 100 at SFU may not take WS 102 for further credit.

WS 200-3 Women in Cross-Cultural Perspective
The focus will be on the situation of women in cross-cultural perspective using literary, historical, anthropological and other appropriate sources. Prerequisite: WS 101 or 102 (may be taken concurrently).

WS 201-3 Women in Canada 1600-1920
Examines the changing nature of female experience from the days of New France to the First World War through the lives of both famous and anonymous women. The diaries, memoirs, letters and literary works of Canadian women will be a major interest. Prerequisite: WS 101 or 102 (may be taken concurrently).

WS 202-3 Women in Canada 1920 to the Present
Examines the range of experience open to Canadian women in the 20th century. The strengths and limitations of women’s roles will be analysed from a historical perspective, using demographic evidence, autobiographies, literature, government documents and monographs. Prerequisite: WS 101 or 102 (may be taken concurrently).

WS 203-3 Female Roles in Contemporary Society
An interdisciplinary study of definitions of self/other as derived from sexual roles and the psychological mechanisms by which such definitions are acquired.
and maintained. Prerequisite: WS 101 or 102 (may be taken concurrently).

WS 204-3 Women, Science and Technology
This course examines some of the social, political and economic consequences for women of the development of a global system of science and technology. A survey of feminist critiques of this system will focus on such topics as the place of science in education, the evaluation of the appropriateness of technologies, the nature of evidence, and strategies for empowerment in relation to research and development. Prerequisite: WS 101 or 102 (may be taken concurrently); or six credit hours in sciences or applied sciences.

WS 205-3 Women and Popular Culture
A study of images of women as revealed through the analysis of a variety of media. Prerequisite: WS 101 or 102 (may be taken concurrently).

WS 206-3 Issues in Women's Health and Health Care
A critical examination of women's relation to the health care system in Canada as practitioners, users, researchers and objects of medical treatment and research. Among the topics discussed will be the medical model, the privatization of health care, the medicalization of daily life including reproduction, and feminist alternatives to the medical system. Prerequisite: one of WS 101 or 102 (may be taken concurrently). Students who have taken WS 201 may not take WS 206 for further credit.

WS 207-3 Introduction to Feminist Theory
A study of concepts, controversies and processes of feminist social theory. Prerequisite: WS 101 or 102 (may be taken concurrently).

WS 208-3 Researching Women's Issues
Introduces students to the researching of women's issues while exploring a wide range of feminist and non-feminist methodologies. In addition, the course will explain how feminist research methods differ from traditional research methods in the social and natural sciences. Prerequisite: WS 101 or 102 (may be taken concurrently).

WS 301-303-4 Special Topics in Women's Studies
A specific topic within the field of women's studies, not otherwise covered in depth in regularly scheduled courses, will be dealt with as occasion and demand warrant. (lecture/seminar) Prerequisite: six credits in women's studies including WS 101 and/or 102.

WS 304-4 Women and Religion
This course examines critical issues of women's relationships to theology and religious practice in major religious traditions. Prerequisite: six credits in women's studies including WS 101 and/or 102.

WS 306-4 Women's Autobiographies, Memoirs and Journals
An examination of women's autobiographical writings, focusing on self images, self presentations and world views. Prerequisite: six credits in women's studies including WS 101 and/or 102.

WS 307-4 Women in British Columbia
Selected topics in the history of women's experience in British Columbia, with particular attention to women's work, political action, family life and education. Prerequisite: six credits in women's studies including WS 101 and/or 102.

WS 308-4 Women and Work
This course explores the nature and conditions of women's paid and unpaid work. It will include an examination of theories which explain labour market discrimination; the effect of public policies on work; and the role of social institutions which affect women's work. Prerequisite: six credits in women's studies including WS 101 and/or 102. Students who have taken SA 335 and/or WS 310 under the title Women and Work may not take this course for further credit.

WS 309-4 Gender and Development
Explores the relationship and the contrast between women and men in the development process and provides an analysis of gender policies and planning practices: local, national and international. Prerequisite: six credit hours in women's studies including WS 101 and/or 102. Students who have taken WS 301 Special Topic: Women and Development or WS 301 Special Topic: Gender and Development may not take this course for further credit.

WS 310-4 Special Topics in Women's Studies
A specific topic within the field of women's studies, not otherwise covered in depth in regularly scheduled courses, will be dealt with as occasion and demand warrant. (lecture/seminar) Prerequisite: 60 credit hours.

WS 313-4 Women and the Environment
Examines women's participation in environmentalism. Among the topics discussed will be the nature/nurture debate, the roots of environmentalism, ecom feminism and reproductive rights. Prerequisite: six credits of women's studies including WS 101 and/or WS 102. Students who have taken this course as a women's studies special topics course may not register for WS 313.

WS 314-4 Race, Class and Gender Relations
An examination of feminist, Marxist and anti-racist theories pertaining to the historical development, social construction, and interactive nature of race, class and gender relations. Prerequisite: six credits in Women's Studies, including WS 101 and/or 102. Students who have taken either WS 301 or 310 as Special Topics: Race, Class and Gender may not take this course for credit.

WS 320-4 Special Topics in Women's Studies
A specific topic within the field of women's studies, not otherwise covered in depth in regularly scheduled courses, will be dealt with as occasion and demand warrant. (lecture/seminar) Prerequisite: 60 credit hours.

WS 400-4 Methodological Issues in Women's Studies
A study and critique of feminist theories as they apply to the study of women. Each offering of the course will focus on a particular subset of feminist theories and applications. Prerequisite: 60 credit hours including two Women's Studies courses, one of which must be WS 101 or 102. Students who have taken WS 311 or 411 may not take this course for further credit when it is subtitled Feminist Psychoanalytic Theories.

WS 412-5 Women and Film
An examination of film theory and practice from a feminist perspective. Prerequisite: 60 credit hours including two women's studies courses, one of which must be WS 101 or 102. Students who have taken WS 312 may not take this course for further credit.

WS 421-5 Practicum I
First semester of work experience in the Women's Studies Co-operative Education Program. Prerequisite: 30 credit hours with a CGPA of 3.0; WS 101, 102 and two 200 division women's studies courses. Students should apply to the Faculty of Arts co-operative education co-ordinator for the third week of the semester preceding the employment semester.

WS 422-0 Practicum II
Second semester of work experience in the Women's Studies Co-operative Education Program. Prerequisite: 45 credit hours with a CGPA of 3.0; WS 101, 102 and two 200 division women's studies courses. Students should apply to the Faculty of Arts co-operative education co-ordinator by the end of the third week of the semester preceding the employment semester.

WS 423-0 Practicum III
Third semester of work experience in the Women's Studies Co-operative Education Program. Prerequisite: 60 credit hours with a CGPA of 3.0; WS 101, 102 and two 200 division women's studies courses. Students should apply to the Faculty of Arts co-operative education co-ordinator by the end of the third week of the semester preceding the employment semester.

WS 424-0 Practicum IV
Fourth semester of work experience in the Women's Studies Co-operative Education Program. Prerequisite: 90 credit hours with a CGPA of 3.0; WS 101, 102 and two 200 division women's studies courses. Students should apply to the Faculty of Arts co-operative education co-ordinator by the end of the third week of the semester preceding the employment semester.

WS 800-5 Methodology in Women's Studies Research
An interdisciplinary seminar in methods of research in women's studies. Students will examine theoretical issues in women's studies methodology and study examples of research and criticism from women's studies in history, art/literary criticism, philosophy, psychology and social and natural sciences. Emphasis will be placed on developing a rigorous and creative interdisciplinary approach to problems. Students will apply methods studied in the course to their own areas of concentration.

WS 820-5 Graduate Seminar in Women's Studies History
This course will examine one or two critical issues in the history of women. Canada, England and France are of special interest in this course, but students, with the permission of the instructor, may focus their work on North America and/or Europe generally.

WS 821-5 Graduate Seminar in the Psychology of Women
This course will consist of an in depth exploration of both traditional and feminist theories of the development of female personality. Special
consideration will be given to the impact of social and economic factors on women's psychology and the extent to which such factors are or are not taken into account.

**WS 822-5 Graduate Seminar in Feminist Theory**
This course will analyse and compare major feminist social and political theories, including those that have emerged from liberal, socialist and radical feminist traditions. The relationship among theories of sexism and political goals and practices will be discussed.

**WS 823-5 Graduate Seminar in Feminist Art/Literary Criticism**
This course will examine the development of feminist aesthetic theories with particular reference to literary, cinematic and/or art forms. The fundamental assumptions of feminist literary and/or art criticism as well as the principles of art forms will be discussed.

**WS 824-5 Graduate Seminar on Women and Social Policy**
This course will focus on one or more social issues and policies in such fields as law, health, economics, social welfare, and science and technology.

**WS 825-5 Graduate Seminar in Women, Technology and Social Change**
This course will focus on relationships between changes in the technological and scientific bases of a society and changes in other major aspects of that society, particularly as they affect women's roles and ideas about women. Emphasis will be on Europe and North America.

WS 830-5 Selected Topics Graduate Seminar I
WS 831-5 Selected Topics Graduate Seminar II
WS 840-5 Directed Studies
WS 898-6 MA Thesis
WS 899-6 MA Extended Essays
WS 997-0 PhD Comprehensive Examination
WS 998-6 PhD Thesis
WS 999-6 MA Field Exam
Prerequisite: completion of six graduate courses.
Centre for Research on Adaptive Behaviour, Ecosystems and Societies (CRABE)
Director: J. Arifovic BA (Sarajevo), MA, PhD (Chic), 604.291.5603 Tel, 604.291.5944 Fax, arifovic@sfu.ca, www.sfu.ca/crab
The activities and the program of this centre are intended to initiate and promote research related to experimental and behavioural economics, and computational methods of the study of learning, adaptation and evolution in economic environments. The centre will facilitate the conduct of faculty and student research projects by providing infrastructure for computer simulations, economic experiments with human subjects and survey studies. The centre will also organize conferences, colloquia, visiting speakers’ seminar series, and visiting scholar programs.

Western Canadian Universities Marine Sciences Society (Bamfield)
Director: A.N. Spencer BSc (London), PhD (Vic, BC) 250.728.3301 Tel, 250.728.3452 Fax, info@bms.bc.ca, www.bms.bc.ca
This society was founded in 1969 with the objective of operating a major research and teaching facility in coastal biology. The Bamfield Marine Sciences Centre offers year round research facilities that enable resident and visiting scientists and students (MSc and PhD) to develop a range of research programs. Courses that lead to academic credit for undergraduate and graduate degree programs at member universities are given at the station. The centre also runs a public education program from September through April.

BC Synchrotron Institute
Director: C.H.W. Jones BSc, PhD (Manc), 604.291.5714 Tel, 604.291.3765 Fax, bcso@sfu.ca, www.bcsi.org
The centre’s members come from the University of BC, University of Victoria, SFU, and University of Northern BC. BC companies, federal and provincial government laboratories in BC. The institute’s mandate is to inform the BC academic, industrial and government laboratory communities of opportunities that exist through synchrotron radiation studies, particularly at the Canadian Light Source; to raise BC’s profile nationally in research and development; and to assist in preparing BC funding applications for facilities and equipment from agencies such as CFI.

Behavioural Ecology Research Group
Director: L.M. Dill BSc, MSc, PhD (Br Col), 604.291.3664 Tel, lidl@sfu.ca, www.sfu.ca/biology/berg
The research group was formally established in 1989 to pursue basic research in the field of behavioral ecology; to maintain and further develop an internationally recognized student training centre in behavioral ecology, and related areas of inquiry; and to provide a service to government, industry and other organizations to tackle basic and applied problems in behavioral ecology through collaborative research. Members are drawn from the Departments of Biological Sciences, Psychology, and the School of Resource Management.

W.J. VanDusen BC Business Studies Institute
Director: C.E. Love BEng, MBA (McM), PhD (Lond), 604.291.4183 Tel, 604.291.5833 Fax, love@sfu.ca, www.sfubusiness.ca/research
Established to focus research efforts on the issues of particular relevance to corporations and government agencies in BC, the institute brings the expertise and research acumen of the Faculty of Business Administration to the Harbour Centre site where faculty and business executives can have greater and more direct opportunities to work together. The institute sponsors lectures and has an executive-in-residence program to bring business leaders into the University’s classrooms.

Canadian Centre for Studies in Publishing
Director: R.M. Lorimer BA, MA (Manil), PhD (Tor), 604.291.5242 Tel, 604.291.5239 Fax, ccsp-info@sfu.ca, www.harbour.sfu.ca/ccsp
This centre was established in 1987 to pursue the study of publishing and to serve the research and the information needs of the publishing industry. The CCSP engages in basic research into the history, management and policy issues related to the industry. Projects are initiated by the CCSP and undertaken under contract to, or by means of grants from industry, government and granting agencies. The research of the CCSP involves faculty, graduate students and independent researchers from a variety of disciplines. From time to time, the CCSP publishes monographs and reports on the theory and practise of publishing, and sponsors seminars, conferences and professional development courses.

Institute for Canadian Urban Research Studies
Director: P.L. Brantingham AB (Col), MA (Fordham), MSP, PhD (Florida State), 604.291.3515 Tel, 604.291.4140 Fax, icurs@sfu.ca, www.sfu.ca/icurs/
The institute is intended to further multidisciplinary research on urban issues. More specifically its objectives are: to provide a focus for research about urban issues in Canada; to promote interdisciplinary collaboration and research; to provide an institutional focus for international scholarship concerning urban problems; to provide a facility in which data for the study of urban problems can be collected, catalogued, and made readily accessible through modern data management; and to provide a facility in which research and techniques can be made available to those having a responsibility for policy.

Centre d’études Francophones Québec-Pacifique
Director: G. Poirier BA (Laval), MA, PhD (McG), poirier@uwaterloo.ca, http://french.uwaterloo.ca/fb7epoirier/icfep/files/Ce ntre.html
The centre is a research and documentation centre. Its mandate includes gathering and disseminating information relating to French literatures, cultures and language of the Pacific region, as well as interdisciplinary research in literature, sociolinguistics, cinema and culture. It supports and sponsors conferences, colloquia and visiting scholars. As the only research centre of its kind west of the Rockies, it’s activities and programs enrich the distinct culture of French speakers of BC and the Pacific Rim.

In addition, the centre acts as a liaison between the Centre d’études Québécoises (CETUQ) of the University of Montreal and the Pacific Region.

Chemical Ecology Research Group (CERG)
Director: Erika Plettner BSc, PhD (S Fraser), 604.291.3586 Tel, 604.291.3765 Fax, plettner@sfu.ca, www.sfu.ca/chemistry/CERG
This association of research groups was established in 1981 as a regional graduate and post graduate training centre in chemical ecology; to offer a service to government and industry; to isolate, identify and synthesize semiochemicals; to clone, express and study enzymes involved in the perception and biosynthesis of semiochemicals; to study interactions between organisms mediated by semiochemicals; and to develop practical applications of semiochemicals.

Centre for Coastal Studies
Director: P. Gallaugher BSc, BEd (Br Col), PhD (S Fraser), 604.291.4653 Tel, 604.291.3851 Fax, www.sfu.ca/coastalstudies
The centre promotes interdisciplinary research, education and dialogue on Canada’s coastal ecosystems, particularly British Columbia. By linking social and natural science with local knowledge, the centre focuses on three key themes: marine conservation, diversification of coastal economies, and capacity for resource management. Activities include: collaborative research involving universities, industry, communities, First Nations and governments; public education; and programs and projects that enhance capacity building and information sharing. The centre’s facilities provide a venue for interdisciplinary networking and a location for visiting researchers by providing both meeting and office space.

Centre for Sustainable Community Development
Director: M.L. Roseland, BA MA (Wesleyan, Conn), PhD (Br Col), 2100 East Academic Annex, 604.291.5849 Tel, 604.291.5473 Fax, cedadmin@sfu.ca, www.sfu.ca/cscd
Community Economic Development (CED) is the process by which communities can initiate and generate their own solutions to their common economic problems. CED enterprises are based on a consideration of the relationship between economic and social factors and other community elements such as housing, education, the natural environment, health, and the arts. CED has emerged as an alternative to conventional approaches to economic development, a participatory, holistic process that leads to positive, concrete changes in communities by creating employment, reducing poverty, contributing to the health of the natural environment, stabilizing local economies, and increasing community control.

The goal of the SFU CED Centre is to encourage accountable, sustainable and appropriate community economic development in British Columbia. The centre provides research, training and advisory services to the CED sector in BC through a team of associates drawn from the University and CED practice. It is actively involved in community-based projects throughout the province and offers an undergraduate certificate and a post-baccalaureate diploma in community economic development, which
are also available through distance education. It also offers a Professional CED Certificate Program.

**Co-operative Resource Management Institute**

Director: K. Lertzman BSc (Manit), MSc, PhD (Br Col), 604.291.3069 Tel, 604.291.4968 Fax, www.rem.sfu.ca/crmi

This institute is a unit on the Burnaby Mountain campus of Simon Fraser University that houses personnel from natural resource management agencies. The institute can facilitate solutions to difficult multidisciplinary issues in resource management by providing an environment where personnel from different management agencies such as forestry, fisheries, and wildlife can work side-by-side along with SFU faculty, graduate students, post-doctoral fellows, and research associates on a daily basis. The university benefits from greater concentration of expertise in resource management on campus and from new opportunities for multidisciplinary, collaborative research programs.

**International Centre for Criminal Law Reform and Criminal Justice Policy**

Executive Director: F.M. Gordon, 604.822.9875 Tel, 604.822.9317 Fax, iccr@law.ubc.ca, www.iccr.law.ubc.ca

The international centre was established in 1991 in Vancouver, BC, by its founding charter members: Simon Fraser University, the University of British Columbia and the International Society for the Reform of Criminal Law. In addition, its board of directors is comprised of four corporate members: the Department of Justice Canada, the Department Public Safety and Emergency Preparedness, Foreign Affairs Canada, and the BC Ministry of the Attorney General as well as the United Nations Office on Drugs and Crime. The centre is formally affiliated with the United Nations and functions as one of two inter-regional UN affiliates of the United Nations Crime Prevention and Criminal Justice Program.

**Institute for Studies in Criminal Justice Policy**

Director: M.A. Jackson BA (Calif), MA, PhD (Tor), 604.291.4040 Tel, 604.291.4140 Fax

The institute was established with the initial support of the Donner Canadian Foundation in 1980. The purpose of the institute is to contribute to the examination of criminal justice policy by providing a setting in which academics, justice system personnel and members of the community can assemble to apply scholarly research to policy development and analysis. The institute undertakes projects on its own initiative as well as under contract.

**Criminology Research Centre**

Director: W.G. Glackman BA (Calif), MA, PhD (S Fraser), 604.291.4041/4127 Tel, 604.291.4140 Fax, crc@sfu.ca, www.sfu.ca/crc

The centre was established in 1978 to facilitate criminological research by faculty and graduate students. Funds to establish and maintain the centre were provided by the Solicitor General of Canada for the first 15 years of operation. Since that time, grants and contracts obtained by the School of Criminology faculty from provincial, federal and private sources have maintained the centre at a minimal level. Currently, the centre operates largely as an administrative unit for external funding received by faculty of the school. Funding to pay the salary of an administrator is derived from these sources and occasional grants from the Dean of Arts. In addition, a modest library is maintained for the use of the SFU and external community. The centre is rejuvenating its occasional paper series with the development of a webpage. In addition, plans are under discussion for a speaker series.

**The Dialogue Institute**

Director: R. S. Anderson BA (Br Col), MA, PhD (Chic), 604.291.5075 Tel, 604.291.5098 Fax, dialogue-info@sfu.ca, www.sfu.ca/dialogue

Established in March 2002, the Dialogue Institute promotes dialogue in and outside the University through applied, theoretical, and collaborative research, education and professional development. It brings together community leaders and organizations, faculty members from SFU and beyond, and students at the undergraduate and the graduate levels to explore dialogue as a discipline and its application in solving complex problems. A generous contribution from The Vancouver Foundation has enabled the Dialogue Institute to continue with community outreach and content development.

The institute focuses on the relation of dialogue and negotiation, on dialogue around foreign affairs issues such as war, environment, trade and immigration, on responding to needs in local communities for specific kinds of dialogue, first to relieve rising tensions and then to open possibilities of changing relationships. Within British Columbia, dialogues about the relation of aboriginal and non-indigenous futures are of continuing interest.

The Dialogue Institute is guided by the Dialogue Institute steering committee and chaired by Robert S. Anderson, professor in the School of Communication at Simon Fraser University.

**The Centre for Education, Law and Society**

Director: W. Cassidy BA, MEd (S Fraser), PhD (Chic), 604.291.4484 Tel, 604.291.3203 Fax, caddissy@sfu.ca, www.educ.sfu.ca/cels

The centre was established in 1984 and given formal approval by the board of governors in 1994. Its central purpose is to improve the legal literacy of children and young adults through a program of teaching, curriculum development and research, and community initiatives. Law related education encompasses: an understanding of law and its role in society and impact on the individual; the relationship between law and governance/citizenship/democracy; issues relating to social justice and fundamental human rights; conflict and dispute resolution; school law, policies, procedures and culture. CELS works primarily with teachers and prospective teachers, school administrators, and educational and legal organizations to help fulfill its mandate. Projects range in scope from the development of mock trials using multicultural and fantasy stories, to support for a school for high risk, court-referred youth, to research into school culture and social responsibility, to the development of holistic anti-violence programs for schools based on the ethics of care and justice, to the development of case studies on environmental law, to the formation of a website on law related issues. Projects vary from year to year, depending on the needs of the educational community, the centre’s priorities, and the ability to obtain external funding.

Three undergraduate courses and one graduate in law education have been developed and are offered on a regular basis through the Faculty of Education. The three undergraduate courses also are available, through distance education. The centre attracts a number of graduate students interested in issues related to school law, human rights, social justice, citizenship education, and school culture.

**Centre for Experimental and Constructive Mathematics**

Director: M.B. Monagan BSc (Massey), MMath, PhD (Wat), 604.291.5617/4729 Tel, 604.291.5614/4947 Fax, mmonagan@cecm.sfu.ca, www.cecm.sfu.ca

The centre is intended to further research and graduate education in computation in the mathematical sciences.

The centre’s activities may include the following: provision of post doctoral fellowships in areas related to experimental and constructive mathematics; sponsorship of regular short-term and long term research visitors to the centre; organization of regular colloquia and occasional conferences on advances in experimental and constructive mathematics; participation in the training of graduate students in experimental and constructive mathematics; establishment, development and maintenance of accessible software archives; provision of tutorial assistance for faculty and graduate students at Simon Fraser University in the use of symbolic languages, of the centre’s software, and of other high level mathematical tools; establishment of a related algorithmic consulting service for individuals within and without the University community; collaboration with similar centres and appropriate individuals at other Canadian and foreign universities. Such collaboration may include co-sponsorship of speakers, conferences and workshops, joint application for external research funds, exchange of software and expertise, establishment of a Canadian mathematical computation network.

Subject to the approval of the director, the centre’s membership will be open to Simon Fraser University faculty, post doctoral and graduate students actively involved in mathematical computing. Associate membership will be available to faculty at other universities.

**Feminist Institute for Studies on Law and Society**

Co-directors: D.E. Chun (Br Col), MA, PhD (Tor), 604.291.4761 Tel, W. Chan BA (Car), MA (Sheff), PhD (Camb), 604.291.4469 Tel, fisls@sfu.ca, www.sfu.ca/~fisls

The institute was established in 1990 to facilitate and continue the development of feminist analyses on law and society at Simon Fraser University. It is designed to provide an environment for creative interaction among scholars and community representatives who are involved in its work locally, nationally and internationally, and to bridge gaps between legal and social science research.

**Institute for Critical Studies in Gender and Health (ICSGH)**

Director: Olena Hankivskyi BA (Tor), MA, PhD (WOntr), 604.291.4677 Tel, 604.291.4786 Fax, olena@sfu.ca

The Institute for Critical Studies in Gender and Health (ICSGH) at Simon Fraser University anchors a vibrant interdisciplinary community of over 30 scholars, researchers and students. The objectives and research foci of the Institute support SFU’s Strategic Research Plan in the areas of i) Health, Genomics and Physiological Sciences and ii) History, Culture, Social Relations and Behaviour.

The ICSGH complements the Faculty of Health Sciences and the Institute for Health Research and Education, which seek to integrate social and natural science research with population outcomes, societal application, and policy analysis. The ICSGH will also play a key role in the Faculty of Arts and Social Sciences which has identified ‘Health and Public Policy’ as a priority research area. Each year, the Institute will identify a key area of research that will be supported through seminars devoted to directed research.
readings, public lectures, and an annual conference. Annual conferences will bring together local, national and international scholars, activists, and practitioners from a number of disciplines and areas of research to consider relevant practical issues related to the Institute’s research mandate. Conferences will provide opportunities for discussion and debate, the development of intellectual networks and collaborative partnerships, and the chance to produce new and original research.

**Gerontology Research Centre**
Director: G.M. Gutman BA (Br Col), MA (Alta), PhD (Br Col), 604.291.5062 Tel, 604.291.5066 Fax, gero@sfu.ca, www.sfu.ca/gero
Established in 1982, the research centre promotes and conducts research on topics relating to aging and the aged, serves as a clearing house for information and provides consultation and technical assistance to the academic community, government, public and private organizations. The centre houses a specialized collection of research materials, maintains an active publications program, organizes workshops and conferences, and is a contributing member of two inter-university research consortia. Research activities focus on applied gerontology with concentrations in: aging and the built environment; health promotion and population health; prevention of victimization and exploitation of the elderly; older adult education; and changing demography and lifestyles. The associated Gerontology Program offers a post baccalaureate diploma in gerontology, a minor and a master of arts degree.

**Centre for Global Political Economy**
Director: S. McBride BSc (Lond), MA, PhD (McM), 604.291.4375 Tel, 604.291.4786 Fax, cgpe@sfu.ca, www.sfu.ca/~cgpe
The centre is housed in the Department of Political Science, and involves faculty from other academic units at Simon Fraser University to provide a focus for existing strength in the field of global political economy and to win a position as an international centre for such research. This will be accomplished through external grants, high quality publications and a variety of other activities.

**Institute of Governance Studies**
Director: P.J. Smith BA, MA (McM), PhD (Lond), 604.291.4994 Tel, 604.291.4786 Fax, igs@sfu.ca; psmith@sfu.ca, www.sfu.ca/igs
The institute was established to further research on issues and problems of governance in Canada at the municipal, regional, metropolitan, provincial and federal levels and in comparative and international settings. It seeks to promote collaboration and research on governance issues; to provide a forum within the Vancouver metropolitan and British Columbia for the collection and dissemination of governance research; and to facilitate exchange between researchers on public policy/governance matters and those with direct responsibility for contemporary governance. Its activities include: occasional paper/ 或 colloquiaconferences — in 2003 on rerefencing and work on the UN’s World Urban Forum, Vancouver 2006; and research projects — such as currently on comparative metropolitan governance, Cascadia and local government legislative reform.

**Institute for the Humanities**
Director: D. Grayston BA (Br Col), MDiv (Gen Theol Sem, NY), ThM (Tor), PhD (Saint Michael’s), 604.291.3955 Tel, 604.291.5789 Fax, graham@sfu.ca, www.sfu.ca/humanities-institute
This institute provides various means to support and develop humanities programs and humanities concepts which are in existence throughout the University. The institute is devoted to the exploration and dissemination of knowledge about traditional and modern approaches to the humanities, and is dedicated to the exploration of critical perspectives that relate social concerns to the cultural and historical legacy of the humanities. The institute initiates and plans conferences, seminars, projects and publications in a range of interrelated fields in the humanities and social sciences. The audience for these activities will be found in the University and the community. The institute and the Department of Humanities are affiliated.

**Centre for Labour Studies**
Director: M. Leier BA, MA (S Fraser), PhD (Nfld), 604.291.5827 Tel, 604.291.5837 Fax, tessa@sfu.ca, www.sfu.ca/labour
The centre promotes the study and understanding of labor, working people, and their organizations from a comprehensive social, cultural, historical, political and economic perspective. The centre aims to provide a range of taught courses and programs (both credit and non-credit), offer research opportunities and assistance to both Simon Fraser University students and provincial and local organizations, and create mutually supportive and beneficial links between the academic and labour communities.

**David See-Chai Lam Centre for International Communication**
Director: J.W. Walls BA, MA, PhD (Indiana), 604.291.5089 Tel, 604.291.5112 Fax, dlam-info@sfu.ca, www.cic.sfu.ca
This interdisciplinary centre, which began operation in 1989, integrates university, government, professional and business resources for research, education, training, and development activities. Its focus is on international, intercultural, and interlingual communication with a special emphasis on the people and institutions of the Pacific Rim. Activities include international communication research and development projects, Chinese, Japanese and other East Asian culture, language and communication courses and workshops, cross-cultural management and communication seminars, and the Pacific Region Forum on Business and Management Communication.

**Logic and Functional Programming Group**
Director: V. Dahl MSc (Buenos Aires), PhD Aix-Marseilles I, Dipl d’Et App Aix-Marseilles II, 604.291.3426/3372 Tel, 604.291.3045 Fax, ltdc@cs.sfu.ca, www.cs.sfu.ca/research/groups/Logic-Functional.html
This group was established in 1990 under SFU’s policy AC-35, to facilitate research on the theory and applications of declarative programming (in particular logic programming, function programming, constraint logic programming and logic grammars). It is a strongly interdisciplinary group comprising members from several SFU units (Computing Science, Linguistics, Mathematics, Engineering Science) and two University of British Columbia units (Linguistics and Computing Sciences), from the University of Victoria, from Université de Provence, and from the University of Dallas. The group aims at furthering the state of the art on the theoretical and practical aspects of developing declarative programming tools, at investigating the uses of these tools for concrete intelligent systems, and at facilitating transfer results and collaborations with other academic units and with industry. Members’ interests include logic, functional and constraint-based programming theory and tools, natural language processing, linguistic theory automation, deductive data bases, knowledge representation, hardware design, expert systems, robotics, distributed processing, mobile code and virtual worlds, tools for molecular biology, and software for the handicapped.

**Interdisciplinary Research in the Mathematical and Computational Sciences (IRMACS)**
Project Leader and Executive Director: P. B. Borwein BSc (WOrt), MSc, PhD (Br Col), 604.291.4376 Tel, Manager: Pam Borghardt, 604.268.6989 Tel, 604.268.7064 Centre Tel, 604.292.7065 Fax irmacs@irmacs.sfu.ca, www.irmacs.sfu.ca/
The IRMACS Centre is an interdisciplinary research facility that provides a flexible and collaborative environment at SFU for more than one hundred scientists whose primary laboratory tool is the computer. IRMACS is one of the most technologically sophisticated and enabling environments available to researchers in the mathematical and computational sciences. IRMACS provides access to sophisticated, immersive, 3D visualization technologies and advanced, interactive, display and multi-media collaborative tools.

**Mental Health, Law and Policy Institute**
Director: R.M. Roesch BS (Arizona), PhD (III), 604.291.5868 Tel, 604.291.6695 Fax, mhlp@sfu.ca, www.sfu.ca/mhlp
This institute was established in 1991 to promote interdisciplinary collaboration in research and training in areas related to mental health, law and policy. Its membership is drawn from the Department of Psychology and the School of Criminology at Simon Fraser University as well as government and community agencies. The institute has received federal and provincial grants for a variety of research projects in the area of mental health and law, and also sponsors lectures and workshops.

**Institute of Micromachine and Microfabrication Research**
Director: M. Parameswaran BE (Madr), MSc, PhD (Alta), 604.291.4971 Tel, 604.291.4951 Fax, param@sfu.ca, www.sfu.ca/immr
The institute will stimulate, encourage and enhance micromachining and microfabrication research by providing a focus and resource base for collaborative and multidisciplinary research leading to new processes and new devices of benefit across a wide array of disciplines.

**Pacific Institute for the Mathematical Sciences (PIMS)**
Director: M.R. Trummer PhD (Zur), 604.268.6655 Tel, 604.268.6657 Fax, sfu@pims.math.ca, www.pims.math.ca
The Pacific Institute for the Mathematical Sciences (PIMS) is dedicated to promoting all aspects of the mathematical sciences by stimulating, coordinating and facilitating the activities of mathematicians and computational scientists. This is achieved by:
- promoting research in all areas of the mathematical sciences;
- initiating collaborations and strengthening ties between mathematical scientists in the academic community and those in the industrial, business and government sectors;
- training of highly qualified personnel for academic and industrial employment;
- developing new technologies to support research, communication and training in the mathematical sciences. Associated with PIMS are projects of the Mathematics of Information Technology and Complex Systems NCE (MITACS).
The centre provides education, innovative program principles and practices of restorative justice. The University exists to support and promote the principles and practices of restorative justice. The centre, in partnership with individuals, the community and other fields involving mathematical methods. In addition, PIMS involves teachers in the mathematical sciences at all levels.

PIMS-SFU is the SFU representative of PIMS and shares the goals and ideals of PIMS generally while also meeting the specific needs of the PIMS/MITACS and mathematical sciences community at SFU.

Centre for Policy Research on Science and Technology (CPROST)
Director: B.P. Clayman BSc (Rensselaer), PhD (C’Nell), 604.873.3295 Tel, 604.731.2130 Fax, cprost@sfu.ca, www.sfu.ca/cprost
The Centre for Policy Research on Science and Technology (CPROST) was established in 1988. CPROST’s primary research focus is the relationship between public policy and management of technology. The centre brings together practitioners and scholars to study the interaction of advances in science and technology, their implementation in the marketplace, and the consequent impact on community and individual interests.

Centre for Public Policy Research
Director: N.D. Olewiler BA (Col), MA (S Fraser), PhD (Br Col), 604.291.4504 Fax, duguid@sfu.ca, www.sfu.ca/cprost
The purpose of the centre is to promote interdisciplinary research, education, and dialogue on a broad range of public policy issues in Canada. The Centre supports and initiates research, publications, colloquia, conferences, visiting researchers and speakers, and international relationships. It is the research arm of the Public Policy Program at Simon Fraser University, complementing the Master in Public Policy graduate degree program.

Centre for Restorative Justice
Co-directors: R.M. Gordon BA (La Trobe), MA (S Fraser), PhD (Br Col), 604.291.4305 Tel, E. Elliott, BPE (Ott), MSW (Car), PhD (S Fraser), 604.291.4730 Tel, 604.291.4140 Fax, cfrj@sfu.ca, www.sfu.ca/cfrj
The centre, in partnership with individuals, the community, justice agencies and Simon Fraser University exists to support and promote the principles and practices of restorative justice. The centre provides education, innovative program models, training, evaluation and research through a resource centre and meeting place that facilitates outreach, promotion, dialogue and advocacy.

Centre for Scientific Computing
Director: R.D. Russell BS, BA, MA, PhD (New Mexico), 604.291.4819 Tel, 604.291.4847 Fax, rdr@cs.sfu.ca, www.csc.sfu.ca Motivated by the expanding role played by scientific computation and mathematical modeling in science and engineering, the Centre for Scientific Computing was formed to bring together interdisciplinary research teams from the various faculties at Simon Fraser University. The major purpose of the centre is to provide SFU with a visible focus for computational research both on the campus and in the wider Pacific Rim research community. Specifically, the centre’s goals are to facilitate discussion between scientific computing research groups (through seminars, workshops and conferences), to provide advanced instruction in computational techniques and applications (through graduate and post doctoral programs), and to actively pursue joint research ventures with industry, government and laboratories.

Centre for Scottish Studies
Director: S. Duguid AB (Ill), MA, PhD (S Fraser), 604.291.4504 Fax, duguid@sfu.ca, www.sfu.ca/scottish
The activities and programs of the centre promote teaching, research and community programming in the field of Scottish studies. The centre supports and initiates research, publications, non-credit and credit instruction, colloquia, conferences, visiting speakers and international relationships. In the pursuit of these objectives, the centre provides support to existing individual, departmental and cross-departmental activities at SFU in the area of Scottish studies.

Research Institute on Southeastern Europe
Director: A. Gerolymatos BA (C’dia), MA, PhD (McG), 604.291.5597 Tel, 604.291.5837 Fax, agerolym@sfu.ca
The goals of this research institute will be to shed light on the problems of the region, both in terms of its historical and contemporary context. Among the research themes that will be addressed are questions of regional co-operation, defense and security, historical background, as well as various socio-economic and political issues that have challenged the status quo of the states in the region. The objective of the institute is to promote an understanding of, and co-operation with, the countries and peoples of southeastern Europe. To that end, the institute will focus on a variety of initiatives including research projects, conferences, publications, community information programs, faculty exchanges and other forms of information sharing.

Institute for Studies in Teacher Education
Director: P.P. Grimmatt BA (Newcastle, UK), BEd (Keele), MA, MEd (Alta), EdD (Br Col), 604.291.4937, 604.291.3203 Fax
The general aim of the institute is to promote and carry out research in the area of teacher education. It also seeks to develop collaborative links with groups within and outside the university community.

Centre for Tourism Policy and Research
Director: P.W. Williams BA (Ott), MA (Wat), PhD (Utah State), 604.291.3103 Tel, 604.291.4968 Fax, peter_williams@sfu.ca, www.sfu.ca/~dossa
The Centre for Tourism Policy and Research is housed within the School of Resource and Environmental Management. The School plays a leading role in managing the Centre. The Centre undertakes research, offers professional development seminars and workshops, and conducts planning and marketing research projects for public and private sector tourism organizations.

Tri-University Meson Facility (TRIUMF)
Director: A.C. Shatter BSc, ARCS (Lond), DPhil (Oxf), 604.222.1047 Tel, 604.222.1074 Fax, info@triumf.ca, www.triumf.ca
Contacts: W.S. Davidson BSc (Edin), PhD (Oxf), 604.291.3771 Tel, C.H.W. Jones BSc, PhD (Manc), 604.291.3583 Tel, R.G. Korteling AB (Hope), PhD (Calif), 604.291.3532 Tel; www.sfu.ca/triumf/ TRIUMF is a joint venture of the University of Alberta, Simon Fraser University, University of Victoria, Carleton University and the University of British Columbia, funded under a contribution agreement with the National Research Council of Canada. The TRIUMF facility is based on a 520MeV cyclotron capable of producing multiple proton beams simultaneously, each at a different energy level. TRIUMF has developed a world-class exotic ion beam facility, ISAC, producing beams of short lived isotopes for research. Pure scientific research at TRIUMF includes medium energy nuclear and particle physics, astrophysics, condensed matter studies and radiochemistry for the production of radiopharmaceuticals. Applied research includes the design of small cyclotrons, microchips, controls software and medical applications such as the use of proton beams and radioisotopes for cancer therapy.

Centre for Wildlife Ecology
Director: R.C. Ydenberg BSc (S Fraser), DPhil (Oxf), 604.291.4282 Tel, 604.291.3496 Fax, higham@sfu.ca, www.sfu.ca/biology/wildberg
The centre fosters high quality, graduate training and research, conducts basic and applied research in wildlife ecology, and provides knowledge and personnel that will help Environment Canada and other agencies meet the challenges of conservation in the 21st century. The central concept is to foster synergy between mission-oriented research and management policies of the Canadian Wildlife Service and the basic research agenda of Simon Fraser University.
Governing Bodies and Faculty

Expiry dates of terms of office are shown where applicable.

Convocation
Chancellor – Chair
President and Vice-Chancellor
Registrar – Secretary
Members of senate
All faculty members
All graduates of Simon Fraser University
All persons whose names are added to the roll of Convocation by regulations of the senate

Board of Governors
Ex Officio
Chancellor
President and Vice-Chancellor
Appointed by Order-in-Council
D. Hanuse, December 2006
B. Macdonald, February 2008
N. McKinstry, January 2008
D. Pekarsky, January 2007
P. Rafferty, January 2006
S. Rasul, February 2008
(2 vacant positions)
Elected by Faculty Members
C. Murray, May 2008
J. Zaichkowsky, May 2007
Elected by Students from the Students
S. Hunsdale, May 2006
K. Tilley, May 2006
Elected by University Employees (excluding Faculty Members)
P. Johnston, May 2008
Administrative Officer
A. Watt, Director, University Secretariat

Senate
Ex Officio
Chancellor
President and Vice-Chancellor – Chair
Vice-President, Academic
Vice-President, Research
Associate Vice-President, Academic
Dean of Applied Sciences
Dean of Continuing Studies
Dean of the Faculty of Arts and Social Sciences
Dean of the Faculty of Business Administration
Dean of the Faculty of Education
Dean of the Faculty of Health Sciences
Dean of the Faculty of Science
Registrar – Secretary of Senate
University Librarian
Elected by the Faculties

Faculty of Health Sciences
C. Dean, September 30, 2005
M. Hayes, September 30, 2005

Faculty of Science
F. Brenden, May 31, 2007
N. Hauenerland, May 31, 2008
Elected by Faculty Members Jointly
S. Black, May 31, 2008
T. Brennand, May 31, 2008
J. Budd, May 31, 2006
J. Delgrande, May 31, 2007
S. Easton, May 31, 2007
M. Ester, May 31, 2008
P. Grimmett, May 31, 2006
B. Honda, May 31, 2007
P. Percival, May 31, 2006
J. Scott, May 31, 2006
D. Weeks, May 31, 2006
R. Woodbury, May 31, 2006
(1 vacant position)

Elected by Convocation
C. Percival, May 31, 2008
D. Smith, May 31, 2008

Elected by Students
C. Apaak, May 31, 2006
S. Caufield, May 31, 2006
D. Fleming-Saraceno, May 31, 2006
E. Halpern, May 31, 2006
D. Harder, May 31, 2006
S. Hunsdale, May 31, 2006
W. Javed, May 31, 2006
E. Johansen, May 31, 2006
S. Magee, May 31, 2006
K. Tilley, May 31, 2006
A. van Baaren, May 31, 2006
J. Wong, May 31, 2006
(2 vacant positions)

Elected by Faculty Members
C. Murray, May 2008
J. Zaichkowsky, May 2007
Elected by Students from the Students
S. Hunsdale, May 2006
K. Tilley, May 2006
Elected by University Employees (excluding Faculty Members)
P. Johnston, May 2008
Administrative Officer
A. Watt, Director, University Secretariat

Academic and Administrative Officials
Chancellor
B.C. Louie BComm (Br Col), LLB (S Fraser), FCA

President and Vice-Chancellor
M. Stevenson BA (Witw.), MA (Mich), PhD (Northwestern)
Provost and Vice-President, Academic
J.H. Waterhouse, PhD (Wash)
Vice-President, Advancement
C.A. Daminato, BSc (Qu), MBA (Br Col)
Vice-President, Finance and Administration
B. Henry BA, MBA (Br Col)
Vice-President, Academic Relations
G. Nicholls BComm, Dip Mkt Res & Adv, MBL, DBL (S Af)

Vice-President, Research
B.M. Pinto, BSc, PhD (Qu)
Vice-President, University Relations
W.G. Gill, MA, PhD (Br Col)
Associate Vice-President, Academic
W.R. Krane BA (Windsor), MA, PhD (York, Can)
Associate Vice-President, Financial Planning
J. Weiernberg, BA (Tor), MBA (York, Can), PEng

Associate Vice-President, Legal Affairs
J.A. Osborne LLB (Edin), MA (Tor), LLM (Br Col)

Acting Associate Vice-President, Students and International
N. Angerilli BSc, PhD (S Fraser)
Chief Information Officer
J. Cranston BSc, MBA (Qu)
Dean of Applied Sciences
B.S. Lewis BA (Hamilton), MA, PhD (Iowa)
Dean of Arts and Social Sciences
J.T. Pierce BA (Tor), MA (Wat), PhD (Lond)
Dean of Business Administration
C.E. Love BEng, MBA (McM), PhD (Lond)
Dean of Continuing Studies
J.G. LaBrie BS (Maine), MSA (St Michael’s, Vi), EdD (Penn)
Dean of Education
P. Shaker BA, MA, PhD (Ohio State)
Dean of Graduate Studies
J.C. Driver MA (Camb), PhD (Cal)
Dean of Health Sciences
D.R. MacLean MD (Dal), MHS (Tor)
Dean of Library Services and University Librarian
L. Copeland BSc (Tor), MA (Brandeis), MLS (Col)
Dean of Science
M. Fischke BSc (Montr), MPhil (Yale), PhD (Yeshiva)
Dean of Student Services and Registrar
W.R. Heath BSA (Guelph)
Director of Academic Computing Services
L. Tolan
Director, Academic Planning and Budget
G. Nicholls BComm, Dip Mkt Res & Adv, MBL, DBL (S Af)

Director, Academic Relations
S. Roppel BA, MA (Alta)
Director of Admissions
N. Heath BA (Oxf), MA (S Fraser)
Director of Alumni Relations
J. Horne BGS, MALs, MLS (S Fraser)
Director of Analytical Studies
W.J. Wattamaniuk BEng, MSc, PhD (Alta)
Director, Campus Security
N. Couti
Director of Ceremonies and Events
H. Edgelow
Director of Childcare Services
P. Frouws
Director, Communication Services (Student Services)
B. Henry BA, MBA (Br Col)
Director of Co-operative Education
N. Johnston BSc (Wat), MSc (S Fraser)
Director, Centre for Online and Distance Education
J. Collinge BA, MA (S Fraser)
Acting Director, Centre for Students with Disabilities
R. Sznit BA (C’dia) MA (Lakehead)
Director, First Nations Student Centre
S. Hobbs BA (S Fraser), MA (Br Col)
Director of Graduate Records, Admission and Registration
V. Ackroyd
Director of Health, Counselling and Career Centre
L. Pelletier BA (Wat), BED (Qu), MHSc (Tor)

Executive Director of Human Resources and Safety
B.L. Anderson BComm (Alta), MA (Illinois)
Acting Director, SFU International
I. Andrews BEd (S Fraser), MA (S Fraser), PhD (Brad)  
Director, International Co-operation and Mobility, SFU International
R. Martin BA, MA (S Fraser)  
Director, Project and Support Services, SFU International
G. Dagg BA (Br Col)  
Director of Media and Public Relations
K. Aberle  
Director of Records and Registration
D. Whiteley BA (Northeastern), MA (S Fraser), PhD (Br Col)  
Director, Recreational Services and Athletics
W. Wedmann BA (S Fraser), MA (Oxt)  
Director, Registrar Services, Simon Fraser University
T. Rahilly BA (C'Dia), MA, PhD (McG)  
Director, Special Collections and Rare Books
E. Swanick BA (Carl), MLS (McG), MA (Leeds)  
Gifts and Contemporary Literature Collection Librarian
T. Power BA (S Fraser), MLS (Br Col)  
Electronic Resources Librarian
D.S. Taylor BA, BEd, MLS (Br Col)  
Systems Librarian
N. Sakikkar BA (S Fraser), MLS (Br Col)  
Maps/Data/GIS Librarian
W.G. Piovesan BA (S Fraser), MLS (Br Col)  
Serials Supervisor
P. Galilee BA (Alta), MLS (Br Col)  
Liaison Librarians
M. Bodnar BA (S Fraser), MLS (Br Col)  
M. Babber (BFA (Sask), MLS (WOnt)  
G. Coleman BA (Tor), MLS (Br Col)  
M. Crouch BA (Ohio State), MLS (Kent State)  
N. Gjertsen BA, MLS (Br Col)  
C. Goldsmith BA, MLS (Br Col)  
G. Graebner BA (Carl), MLS (WOnt)  
P.E. Groves BA (Wat), MLS (Br Col)  
K. Minkus BA (Ott), MLS (Br Col)  
I. Nisette BA, MA (Belgrade), MLS (Br Col)  
L. Rimmer BSc (S Fraser), MLS (Alta)  
S. Roberts BA (Sask), MLS (WOnt)  
S. Wong BA (Vic, BC), MLS (Br Col)  
Acquisitions Librarian
(to be announced)  
Cataloguing Librarian
M. Reid BA (Winn), MLS (Dal)  
Librarians, Belzberg Library
M. McIntosh BA (Calg), MLS (Alta)  
N. Smart BA (McG), MLS (Br Col)  
Librarians, Surrey Library
G. Coleman BA (Tor), MLIS (Br Col)  
N. Gjertsen BA, MLIS (Br Col)  
BC Electronic Library Network Manager
A. Cocchia BA (Br Col), MLIS (McG)  
Project Co-ordinators
J. Durno BFA, MFA, MLIS (Br Col)  
H. Morrison BA, MLS (Alta)  
Library
University Librarian and Dean of Library Services
L. Copeland BSc (Tor), MA (Brandeis), MLS (Col)  
Associate University Librarian (Bennett Public Services)
E. Fairey BA, MA (Br Col), MLS (Tor)  
Associate University Librarian (Building, Budget and Personnel)
T.M. Mundle BA, MLS (Br Col)  
Associate University Librarian (Processing and Systems)
G.W.B. Owen BA (S Fraser), MLS (Br Col)  
Head, Belzberg Library
K. Marotz BA (S Fraser), MLS (Br Col)  
Head, Collections Management Division
G. Bird BA (Cornell), MLS (Br Col)  
Head, Document Delivery Services Division
S. Mackenzie BA, MLS (Br Col)  
Head, Loans Division
G. Pomerleau  
Head, Processing Division
P. Swanson BSc (Educ) (Wis), MLS (Br Col)  
Head, Reference Division
T. Rosseel BA (Ou), MLS (Syr)  
Head, SFU Surrey Library
N. Gick BSc, MLS (Br Col)  
Co-ordinator, Systems Division
M. Jordan BA (PEI), MA (McM), MLS (Br Col)  
Endowed Chairs and Professors
Burnaby Mountain Endowed Professors
M. Thewalt, Physics
L. Dill, Biological Sciences
R. Grauer, Business Administration
J. Martin, Education

1999
J. Busumti-Sam, Political Science
S. Holdcroft, Chemistry
B. Truax, Communication

2000
C.R. Day, History
G. Leach, Chemistry
P. Howard, Communication

2001
M. Laba, Communication
W. Cleveland, History
T. McMullan, Biological Sciences

2002
D. Wilson, Biological Sciences
M. Dubiel, Mathematics
A. Heard, Political Science

2003
H. Bai, Education
Z. Punja, Biological Sciences
C. Thong, Biological Sciences

2004
S. Verduz-Jones, Criminology
P. Budra, English
M. Leier, History
D. Allen, Economics
K. Akins, Philosophy
G. Anderson, Criminology
M. Howlett, Political Science
P. Borwein, Mathematics
Centre for Education, Law and Society
W. Cassidy, Education
Endowed University Professor (vacant)
Jack and Nancy Farley Endowed University Professor (vacant)
Forest Renewal BC
D. Stead BSc (Exe), MSc (Leeds), PhD (Nott), CEng
Hellenic Canadian Congress of BC Endowment
A. Gerylovsky, History
Gordon M. Shrum Endowed Chair (vacant)
Talus Endowed University Professor
R.G. Harris, Economics
J.L. Wright Professors of Laboratory Studies
A. Parameur, Engineering Science
Ming and Stella Wong Endowed Chair in International Business
R.L. Tung, Business Administration
J.S. Woodsworth Chair
E. Stebner, Humanities
J.S. Woodsworth Resident Scholar (vacant)
Ruth Wynn Woodward Endowed Chair
E. Philopose, Women’s Studies
Deana Wosk Professor of Arts and Culture
I.P. McCarthy, Management, business, administrative studies
L. Marks, Contemporary Arts

Sponsored Chairs and Professors
Canada Research Chairs
D.L. Balice, molecular biology and biochemistry
D. Bingham, statistics and actuarial science
N.R. Branda, chemistry
D. Bingham, statistics and actuarial science
C.K. Patton, sociology and anthropology
C.A. Lowenberger, biological sciences
I.P. McCarthy, management, business, administrative studies
J.J. McDonald, psychology in NSE
B. Mohar, mathematics
P. Mooney, physics
C.K. Patton, sociology and anthropology
F.J. Pelletier, linguistics, philosophy
R.M. Peterman, resource and environmental management
S. Robinovitch, kinesiology
A.J. Robson, economics
S.C. Sahinlap, computing science
J.K. Scott, molecular biology
J. Taylor, geography, history
G.F. Tibbits, kinesiology
D.J.E. Vocarek, organic chemistry
P.H. Winne, education
S.C. Wright, psychology
Y. Zhao, communications
Echo/Epic NSERC Industrial Chair in Intelligent Software Systems
Q. Yang, Computing Science (junior chair)

NSERC / University-Government Research Chair in Behavioural Ecology
Junior Chairholder T.D. Williams with Environment Canada

Chancellors Emeriti
J. Segal LLB (Friser), CM, OBC
M.K. Wong BA (Br Col), LLD (Friser), CM

Presidents Emeriti
J.P. Blaney BEd, MEd (Br Col), Edd (Calif)
W.G. Saywell BA, MA, PhD (Tor)

Professors Emeriti
A
Adam, H., Sociology and Anthropology 190
Alexander, B.K., Psychology 189
Aloi, S.A., Contemporary, Arts 153
Aisplach, B.R., Mathematics 224, 319
Arnes, E., Psychology 189
Aronoff, S., Chemistry 217
Arrott, A.S., Physics 232, 321
B
Bakan, P., Psychology 189
Bailtree, L.E., Physics 232
Banister, E.W., Kinesiology 139
Bell, T.N., Chemistry 217
Bhaktman, N.M.G., Kinesiology 139
Black, S.A., English 165
Blaser, R.F., English 165
Bojadzieg, G., Mathematics 224
Boland, L.A., Economics 163
Borden, J.H., Biological Sciences, Chemical Ecology Research Group 214
Bowering, G., English 165
Bowman, M.L., Psychology 189
Bradley, R.D., Philosophy 185
Brown, R.C., Geography 171
Brown, T.C., Mathematics 224
C
Calvert, T.W., Computing Science, Engineering Science, Interactive Arts and Technology, Kinesiology 126, 131, 136, 153
Canadellia, F.H., English 165
Carlson, R.L., Archaeology 147, 284
Chant, J.F., Economics 163
Chapman, A.E., Kinesiology 139
Cheng, P.L., Business Administration 200
Chow, Y.L., Chemistry 217
Cochran, J.F., Physics 232, 321
Cohn, D., Political Science 297
Cohne, T.H., Political Science 186
Colbou, K., Physics 232
Coleman, P.E.F., Eduction 206
Cooke, F., Biological Sciences 214
Copson, P., Economics 163
Crompton, C.B., Geography 171
Crawford, C.B., Psychology 189
Crozier, E.D., Physics 232
Cuperman, V., Engineering Science 131, 274
Curis, J.R., English 165
Curzon, A.E., Physics 232, 321
Cushley, R.G., Molecular Biology and Biochemistry
D
D’Auria, J.M., Chemistry 217
Das, A., Mathematics 224, 319
Davis, S., Philosophy 185
Davison, A.J., Health Sciences, Kinesiology 139
Day, C.R., History 174
Day, J.C., Resource and Environmental Management 281
Debo, R.K., History 174
Delany, P., English 165
Diamond, A.L., Psychology 189
Dickie-Clark, H., Sociology and Anthropology 190
Dill, J.C., Engineering Science 131, 274
Djura, S., English, Humanities 165
Druhl, L.D., Biological Sciences 214
E
Einstein, F.W.B., Chemistry 217
Elliot, J.R., English 165
Ellis, J.F., Education 206
Enns, R.H., Physics 232
Etherington, L.D., Business Administration 200
F
Faith, K., Criminology 160
Fatia, E.A., Criminology 214
Finlayson, T., Biological Sciences 214
Fisher, F.J.F., Biological Sciences 214
Fleming, J., English 165
Foley, J.A., Linguistics 181
Fridt, R.F., Physics 232
Funt, L., Chemistry 217
G
Garcia, J., Latin American Studies 180
Gay, I.D., Chemistry 217
George, D.A., Engineering Science 131, 274
Gibbons, M., Education 206
Gomez-Moriana, A., Humanities 177
Grube, G.M., Gerontology, Gerontology Research Centre 174
Gyagay, S., Physics 232, 321
H
Harden, E.F., English 165
Harper, R.J.C., Interdisciplinary Studies 144
Harrop, R., Computing Science, Mathematics 126, 224, 272
Herzog, J.P., Business Administration, Economics 163, 200
Hobler, P.M., Archaeology 147, 284
Holmes, R.A., Business Administration, Economics 163, 200
Huntley, D.J., Physics 232, 321
I
Ingram, E.R., History 174
Irwin, J.C., Physics 232, 321
J
Jamieson, R.W., Archaeology 147, 284
Johnston, H.J.M., History 174
K
Kameda, T., Computing Science 126
Kazepides, A.C., Education 206
Khan, M.H., Economics 163
Kimball, M., Psychology 189
Kimball, M., Women’s Studies, Psychology 196
Kirchner, G., Education 206
Kirschner, D.S., History 174
Kirschner, T.J., Humanities 177
Kitchin, J.M., History 174
Knetsch, J.L., Economics, Resource and Environmental Management 163, 281
Korteling, R.G., Chemistry, Tri-University Meson Facility (TRIUMF) 217, 451
L
Lachlan, A.H., Mathematics 224
Lardner, R.W., Mathematics 224
Lebowitz, A., Women’s Studies 196
Lebowitz, M.A., Economics 163
Lipsy, R.G., Economics 163
M
Makower, J.P.M., Biological Sciences 214
MacPherson, A., Geography 171
Maki, D.R., Economics 163
Mall, G.L., Chemistry 217
Marcia, J.E., Psychology 189
Maud, R.N., English 165
McClaren, M., Education 206
McKee, M., Biology 214
McKee, R.A., Biological Sciences 214
McWhinney, E., Political Science 196
Merler, G., French 168
Mills, J., English 165
Modigliani, V., Psychology 189
Morrison, S.R., Physics 232, 321
Munro, J.M., Economics 163
N
Newton, R.C., History 174
### Faculty

#### A
- Abramson, N.A.R., Business Administration 200, 304
- Accili, E.A., Kinesiology 139, 280
- Agnes, G., Chemistry 217, 317
- Akins, K., Philosophy 185, 296
- Alberding, N., Physics 222
- Albright, L.J., Biological Sciences 214, 316
- Alder, G., Psychology 189
- Alderete, J., Linguistics 181, 295
- Allen, D.M., Earth Sciences 218, 318
- Allen, D.W., Economics 163, 287
- Altman, R., Statistics and Actuarial Science 235, 322
- Amundsen, C.L., Education 206, 309
- Anderson, G.S., Criminology 160, 285
- Anderson, P.S., Communication 124, 270
- Anderson, R.S., Communication, The Dialogue Institute 124, 270
- Andolfatto, D., Economics 163, 287
- Angus, I., Humanities 177
- Anthony, J., Kinesiology 139
- Archibald, T., Mathematics 224
- Archibald, T., Mathematics 224
- Arinzo, C.N., Centre for Research on Adaptive Behavior in Economics (CRABE) 163, 287, 448
- Asimuzon, R.C., Kinesiology 139
- Atasoy, Y., Sociology and Anthropology 190, 301
- Atkins, M.S., Centre for Systems Science, Computing Science 126, 272
- Bajić, I.V., Engineering Science 131, 274
- Baker, G., Computing Science 127
- Balko, E., Communication 124, 270
- Ballestrini, L.E., Physics 321
- Banerjee, C.M., English 165, 288
- Barrow, R., Dean of Education, Education 206, 309
- Bart, B., Computing Science 127
- Bartholomew, K., Psychology 189, 298
- Batchelor, R.J., Chemistry 217
- Bawa, P.N.S., Kinesiology 139, 280
- Beale, A.G.M., Communication 124, 270
- Becherhofer, J.L., Physics 232, 321
- Beckenbach, A.T., Biological Sciences 214, 316
- Beg, M.F., Engineering Science 131, 274
- Beh, C.T., Molecular Biology and Biochemistry 229, 320
- Bell, D.A., Education 206
- Bell, J., Mathematics 225, 319
- Bell, L.S., Archaeology 147, 284
- Ben Youssf, B., Interactive Arts and Technology 136, 276
- Benbell-Young, I., Biological Sciences 214, 316
- Bennet, A.J., Chemistry 217, 317
- Berovitz, I., Statistics and Actuarial Science 236
- Bererink, P., Computing Science 127, 272
- Berggren, J.L., Mathematics 225, 319
- Beyers, D.L., Psychology 189, 298
- Beyer, J.D., Education 206, 309
- Bhattacharya, B.K., Computing Science 162, 272
- Bick, A., Business Administration 200, 304
- Bingham, C.W., Education 206, 309
- Bingham, D., Statistics and Actuarial Science 235, 322
- Bird, J.S., Engineering Science 131, 274
- Bizzocchi, J., Interactive Arts and Technology 136, 276
- Blaber, A.P., Kinesiology 139, 280
- Black, S., Philosophy 185, 296
- Blackman, A.R., Faculty of Arts and Social Sciences, Psychology 144, 284
- Blazenko, G.W., Business Administration 200, 304
- Blomley, N.K., Geography 171, 291
- Boal, D.H., Physics 232, 321
- Boelscher, Ignace, M., First Nations Studies, Sociology and Anthropology 166, 190, 301
- Bogardus, J., Sociology and Anthropology 190, 301
- Bolognesi, C.R., Engineering Science 131, 232, 274, 321
- Bonnafant, L., French 168, 290
- Bowe, P.B., Mathematics 225, 319
- Bowes, J., Interactive Arts and Technology 136, 276

#### B
- Boyanowski, E.O., Criminology 160, 285
- Boyd, N.T., Criminology 160, 285
- Boyer, R.E., History 174
- Brand, R.N., Chemistry 217, 317
- Brandhorst, B.P., Molecular Biology and Biochemistry 229, 320
- Brantingham, P.J., Criminology 160, 285
- Brantingham, P.L., Criminology, Institute for Canadian Urban Research Studies 160, 286, 448
- Breden, F., Biological Sciences 215, 316
- Brennand, T.A., Geography 171, 291, 319
- Brinkman, F.S.L., Molecular Biology and Biochemistry 229, 320
- Brockman, J., Criminology 160, 286
- Brodovitch, J.C., Chemistry 217
- Brohman, J.A.C., Geography, Latin American Studies 171, 291
- Brook, S., English 165, 288
- Broun, D., Physics 232, 321
- Brown, S., Kinesiology 139
- Brown, T.C., Mathematics 319
- Browne, C.V.A., Contemporary Arts 153, 285
- Bruin, N., Mathematics 225, 319
- Brue, F., French 168
- Brydon, M.J., Business Administration 200, 304
- Budd, J., Interactive Arts and Technology 136, 276
- Budra, P., English 165, 288
- Bukszar, E.W., Business Administration 200
- Bulatov, A., Computing Science 127, 272
- Burgess, C., Linguistics 181, 295
- Burley, D.V., Archaeology 147, 284
- Burley, D.V., Archaeology, First Nations Studies 147, 168, 284
- Buritch, B., Criminology 160, 286
- Burton, F.W., Computing Science 126, 272
- Burton, L., Humanities 177
- Butts, R.G., Business Administration 200, 304
- Busumzw-Sam, J., Political Science 186, 297

#### C
- Calvert, A.J., English 218, 318
- Cameron, K., Earth Sciences 219
- Cameron, R.D., Computing Science 126, 272
- Campbell, L., Women's Studies 196, 303
- Campbell, S.R., Education 206, 309
- Canac-Marquis, R., French 168, 290
- Carpendale, J., Psychology 189, 298
- Case, R., Education 206
- Cassidy, W., Education, Centre for Education, Law and Society 206, 309, 449
- Cavers, J.K., Engineering Science 131, 274
- Chan, W., Criminology, Feminist Institute for Studies on Law and Society 160, 286, 449
- Chang, J.C.W., Business Administration 200, 304
- Chapman, A.L., Psychology 189
- Chapman, G.H., Engineering Science 131, 274
- Charandi, D., English 165, 286
- Chaudhury, H., Gerontology 174, 291
- Chen, I., Mathematics 225, 319
- Chen, M., Physics 232
- Chen, Y., Business Administration 200, 304
- Chenier, E., History 175, 292
- Choi, K.K.S., Mathematics 225, 319
- Choksi, R., Mathematics 225, 319
- Chou, E.U., Business Administration 200, 304
- Chung, D., Business Administration 200, 304
- Chung, D.E., Criminology, Feminist Institute for Studies on Law and Society 160, 286, 449
- Chung, D.E., Sociology and Anthropology 190
- Clague, J.J., Earth Sciences 218, 318
- Clapp, R.A., Geography 171, 291
- Clay, A., Contemporary Arts 153, 285
- Clayman, B.P., Vice-President Research, Physics 232, 321
- Clements-Vivian, S., Interactive Arts and Technology 136
- Cleveland, W.L., History 174, 292
- Clossey, L., History 175, 292
- Clyburne, J.A.C., Chemistry 217, 317
- Cobb, R., Psychology 298
- Cobb, R.J., Psychology 189
- Coe, R.M., English 165, 288
- Coffey, B.P., Earth Sciences 219, 318
- Cohen, L.J., Political Science 186, 297
- Cohn, D., Political Science 186
- Cohn, T.H., Political Science 297
- Colligan, C., English 165, 288
- Collins-Dodd, C.M., Business Administration 200, 304
- Coliis, S., English 165, 288
<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tung, R.L.</td>
<td>Business Administration 200, 304</td>
<td></td>
</tr>
<tr>
<td>Turnbull, W.</td>
<td>Psychology 189, 298</td>
<td></td>
</tr>
<tr>
<td>U</td>
<td>Underhill, O., Contemporary Arts 153, 285</td>
<td></td>
</tr>
<tr>
<td>Unrau, P.J.</td>
<td>Molecular Biology and Biochemistry 229, 320</td>
<td></td>
</tr>
<tr>
<td>V</td>
<td>Valiquette, M., English 165</td>
<td></td>
</tr>
<tr>
<td>Vetterli, M.</td>
<td>Physics 232, 321</td>
<td></td>
</tr>
<tr>
<td>Vetterli, M.</td>
<td>Physics 232, 321</td>
<td></td>
</tr>
<tr>
<td>Vaida, A. V.</td>
<td>Kinesiology 139, 280</td>
<td></td>
</tr>
<tr>
<td>Vining, A.R.</td>
<td>Business Administration 200, 304</td>
<td></td>
</tr>
<tr>
<td>Vinkovetsky, I.</td>
<td>History 175, 292</td>
<td></td>
</tr>
<tr>
<td>Viswanathan, J.</td>
<td>French 168, 290</td>
<td></td>
</tr>
<tr>
<td>Vodadlo, D.J.</td>
<td>Chemistry 217, 317</td>
<td></td>
</tr>
<tr>
<td>Vond, C. H.</td>
<td>Business Administration 200, 304</td>
<td></td>
</tr>
<tr>
<td>W</td>
<td>Wakkary, R., Interactive Arts and Technology 136, 276</td>
<td></td>
</tr>
<tr>
<td>Walls, J. W.</td>
<td>Asia-Canada Program, David See-Chi Lam Centre for International Communication, Humanities 450</td>
<td></td>
</tr>
<tr>
<td>Wang, K.</td>
<td>Computing Science 127, 272</td>
<td></td>
</tr>
<tr>
<td>Wang, Y.</td>
<td>Linguistics 181, 295</td>
<td></td>
</tr>
<tr>
<td>Warden, B.C.</td>
<td>Earth Sciences 219, 318</td>
<td></td>
</tr>
<tr>
<td>Ward, R.</td>
<td>Kinesiology 139</td>
<td></td>
</tr>
<tr>
<td>Warwick, P. V.</td>
<td>Political Science 186, 297</td>
<td></td>
</tr>
<tr>
<td>Waterhouse, J. H.</td>
<td>Business Administration 200, 304</td>
<td></td>
</tr>
<tr>
<td>Watkins, S.</td>
<td>Physics 232, 321</td>
<td></td>
</tr>
<tr>
<td>Watson, N. V.</td>
<td>Psychology 189, 298</td>
<td></td>
</tr>
<tr>
<td>Wedley, W. C.</td>
<td>Business Administration 200, 304</td>
<td></td>
</tr>
<tr>
<td>Weeks, D. J.</td>
<td>Psychology 189, 298</td>
<td></td>
</tr>
<tr>
<td>Welch, J. R.</td>
<td>Archaeology, Resource and Environmental Management 147, 281, 284</td>
<td></td>
</tr>
<tr>
<td>Weldon, K. L.</td>
<td>Statistics and Actuarial Science 235, 322</td>
<td></td>
</tr>
<tr>
<td>Welsby, C.</td>
<td>Contemporary Arts 153, 285</td>
<td></td>
</tr>
<tr>
<td>Wexler, M. N.</td>
<td>Business Administration 200, 304</td>
<td></td>
</tr>
<tr>
<td>White, M. D.</td>
<td>Kinesiology 139, 280</td>
<td></td>
</tr>
<tr>
<td>Whitmore, S.</td>
<td>Engineering Science 131</td>
<td></td>
</tr>
<tr>
<td>Whittlesea, B. W. A.</td>
<td>Psychology 189, 298</td>
<td></td>
</tr>
<tr>
<td>Whitworth, J. M.</td>
<td>Sociology and Anthropology 190, 301</td>
<td></td>
</tr>
<tr>
<td>Wiebe, L. G.</td>
<td>Education 206</td>
<td></td>
</tr>
<tr>
<td>Wiese, K.</td>
<td>Computing Science 127, 272</td>
<td></td>
</tr>
<tr>
<td>Wilkie, J. J.</td>
<td>Chemistry 217, 317</td>
<td></td>
</tr>
<tr>
<td>Williams, J. F.</td>
<td>Mathematics 225, 226, 319</td>
<td></td>
</tr>
<tr>
<td>Williams, P. W.</td>
<td>Centre for Tourism Policy and Research, Resource and Environmental Management 281, 451</td>
<td></td>
</tr>
<tr>
<td>Williams, T. D.</td>
<td>Biological Sciences 214, 316</td>
<td></td>
</tr>
<tr>
<td>Williams, V.</td>
<td>Chemistry 217, 317</td>
<td></td>
</tr>
<tr>
<td>Williams-Jones, G.</td>
<td>Earth Sciences 219, 318</td>
<td></td>
</tr>
<tr>
<td>Wilson, D. R.</td>
<td>Biological Sciences 215</td>
<td></td>
</tr>
<tr>
<td>Wilson, P. D.</td>
<td>Chemistry 217, 317</td>
<td></td>
</tr>
<tr>
<td>Winnie, P. H.</td>
<td>Education 206, 310</td>
<td></td>
</tr>
<tr>
<td>Winstone, M. L.</td>
<td>Biological Sciences, Centre for Dialogue 214, 242, 316</td>
<td></td>
</tr>
<tr>
<td>Winton, I.</td>
<td>Geography 172, 291</td>
<td></td>
</tr>
<tr>
<td>Wister, A. V.</td>
<td>Gerontology 174, 291, 292</td>
<td></td>
</tr>
<tr>
<td>Wittenberg, R.</td>
<td>Mathematics 225, 319</td>
<td></td>
</tr>
<tr>
<td>Wittman, H.</td>
<td>Latin American Studies 294</td>
<td></td>
</tr>
<tr>
<td>Wittman, H.</td>
<td>Sociology and Anthropology 190, 301</td>
<td></td>
</tr>
<tr>
<td>Woodburry, R.</td>
<td>Interactive Arts and Technology 136, 276</td>
<td></td>
</tr>
<tr>
<td>Woodward, C.</td>
<td>Economics 163, 287</td>
<td></td>
</tr>
<tr>
<td>Woodward, R.</td>
<td>Publishing 300</td>
<td></td>
</tr>
<tr>
<td>Wrenn, P. M.</td>
<td>French 168, 290</td>
<td></td>
</tr>
<tr>
<td>Wright, R. D.</td>
<td>Psychology 189, 298</td>
<td></td>
</tr>
<tr>
<td>Wright, S. C.</td>
<td>Psychology 189, 298</td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>Xu, J., Economics 163, 287</td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>Yang, Y., Interactive Arts and Technology 136</td>
<td></td>
</tr>
<tr>
<td>Yates, R. A.</td>
<td>Business Administration 200, 304</td>
<td></td>
</tr>
<tr>
<td>Ydenberg, R. C.</td>
<td>Biological Sciences, Centre for Wildlife Ecology 214, 316, 451</td>
<td></td>
</tr>
<tr>
<td>Ye, Z-G.</td>
<td>Chemistry 217, 317</td>
<td></td>
</tr>
<tr>
<td>Yellowhorn, E. C.</td>
<td>Archaeology, First Nations Studies 147, 166, 284</td>
<td></td>
</tr>
<tr>
<td>Yoon, J.</td>
<td>Contemporary Arts 153, 285</td>
<td></td>
</tr>
<tr>
<td>Young, A.</td>
<td>Psychology 189, 298</td>
<td></td>
</tr>
<tr>
<td>Young, E. C.</td>
<td>Molecular Biology and Biochemistry 229, 320</td>
<td></td>
</tr>
<tr>
<td>Yu, H. Z.</td>
<td>Chemistry 217, 317</td>
<td></td>
</tr>
<tr>
<td>Yu, T.</td>
<td>Humanities 177</td>
<td></td>
</tr>
<tr>
<td>Z</td>
<td>Zaichkowsky, J. L., Business Administration 200, 304</td>
<td></td>
</tr>
<tr>
<td>Zaman, H.</td>
<td>Women's Studies 196, 303</td>
<td></td>
</tr>
<tr>
<td>Zandvliet, D.</td>
<td>Education 206, 310</td>
<td></td>
</tr>
<tr>
<td>Zatzick, C. D.</td>
<td>Business Administration 200, 304</td>
<td></td>
</tr>
<tr>
<td>Zakis, R.</td>
<td>Education 206, 310</td>
<td></td>
</tr>
<tr>
<td>Zhang, H.</td>
<td>Computing Science 127, 272</td>
<td></td>
</tr>
<tr>
<td>Zhao, Y.</td>
<td>Communication 124, 270</td>
<td></td>
</tr>
<tr>
<td>Zimmerman, D.</td>
<td>Philosophy 185, 296</td>
<td></td>
</tr>
<tr>
<td>Zuccolo, L.</td>
<td>Linguistics 181</td>
<td></td>
</tr>
<tr>
<td>Zwagerman, S.</td>
<td>English 165, 288</td>
<td></td>
</tr>
</tbody>
</table>
Simon Fraser University Surrey Map

SkyTrain

1. Gateway Station
2. Surrey Central Station
3. King George Station
Major Program 125
Minor Programs
Communication 125
Public Relations 125
PhD Program 271
Post Baccalaureate Diploma in Communication 7, 124, 126
Program of Studies 124
Transfer Credit and Residence Requirements 125
Community and University Colleges, Admission from BC and Yukon 38
Community Economic Development, Aboriginal 238
Community Economic Development, Centre for. See Sustainable Community Development, Centre for Services Program
Computing Science, School of 126, 272
Computing Science, School of Business Administration and 200, 203
Computing Science Research Lab 21
Corequisite 32
Co-operative Education, Interactive Arts and 240, 247
Cost, Calendar 3
Correction Deposit for New Students, Payment of 245
Course Drop Penalties, Tuition Refund Policy and 54
Course Loads 45
Course Overloads 45
Courses 325
Credit-free courses 32
Components of courses 32

Dance Extended Minor 156
Film and Video Studies Minor 156
Film Extended Minor 157
Music Extended Minor 157
Theatre Extended Minor 159
Visual Art Extended Minor 159
Minor Programs
Film and Video Studies 156
Fine and Performing Arts Minor 159
Praxis Centre for Screenwriters 159
Continuance, Standing Required for 49
Continuing Studies 24, 238
Centre for Online and Distance Education 239
Certificates, Diplomas and Non-credit Courses 239
Certificate Programs 239
Diploma Programs 239
Non-credit Courses 239
Language Program 238
French 239
Research and Evaluation Unit 239
Self Instructional Language Program 239
Part Time Credit Study 238
Integrated Studies 238
Seniors Program 238
Special Auditt Student 238
Convocation 31, 251, 452
Co-operative Education 30, 240, 247
Actuarial Science 237
Biological Sciences 216
Business Administration, Master of 306
Chemistry 218
Cognitive Science 153
Communication 126, 271
Computing Science 127
Computing Science 126, 272
Co-operative Education 127
Courses 346
Dual Degree Program 130
Joint Major in Information Systems in Business
Admission and Computing Science 130, 203
Major Programs 128
Management and Systems Science Program 130
Minor Program 129
MSc Program 273
PhD Program 273
Post Baccalaureate Diploma in Computing Science 7, 124, 130
Prerequisite Grade Requirements 127
Second Degree Program 129
Specialist Programs 129
Multimedia Computing 129
Software Engineering 129
Transfer Credit and Residence Requirements 127
Computing Services
Academic Computing Services 12
Concurrent Studies 39
Contingency Admission 246
Conduct, Student 245
Confirmation Deposit for New Students, Payment of 53
Computer Science, School of 238
Community Economic Development, Centre for. See Sustainable Community Development, Centre for Services Program
Graduate Courses 320
Computational Mathematics, Applied and. See Applied and Computational Mathematics
Computer Science, School of 126, 272
Computer Science, School of Business Administration and 200, 203
Co-operative Education 30, 240, 247
Co-operative Education, Interactive Arts and 240, 247
Convocation 31, 251, 452
Co-operative Education 30, 240, 247
Course Challenge 34, 45, 46
Course Catalogue 325
Course Drop Penalties, Tuition Refund Policy and 54
Course Loads 45
Course Overloads 45
Courses 325
Credit-free courses 32
Components of courses 32

Co-operative Education, Interactive Arts and Technology 139
Co-operative Education, Interactive Arts and Technology 139
Co-operative Resource Management Institute 282, 449
Corequisite 32
Corequisite 32
See also individual courses in Course Catalogue
Corrections, Calendar Changes and 3
Cost, Calendar 3
Co-supervision 248
Counselling and Career Centre, Health
See Health, Counselling and Career Centre
Course Audit 46, 247
Course Catalogue 325
Course Challenge 34, 45, 46
approval for changes 46
assessment for 49
Certificate in First Nations Language Proficiency 182
examinations 49
Faculty of Education 211
grade 48
maximum credit allowed 146
Registration for 46
regulations for withdrawal 46

Simon Fraser University 2005 • 2006
Courses at Another Institution, Fees for 254
Creative Writing, The Writer's Studio Certificate in 239
Credentials by Program 7
Credit
Credit for the Semester 49
Credit Hours definition 32
Part Time Credit Study 238
Transfer Credit 34
Criminal Justice Policy, Institute for Studies in 449
Criminal Law Reform and Criminal Justice Policy, International Centre for 449
Criminology and Women’s Studies, Joint Major in 197
Criminology Research Centre 449
Criminology, Joint Major in Sociology or Anthropology and 192
Criminology, School of 160, 285
Certificate Programs
Criminology (Advanced) 7, 144, 163
Criminology (General) 7, 144, 162
Co-operative Education Program 163
Courses 357
Enrolment Limitations 160
Extended Minor Program 162
Honors Program 162
Joint Major in Criminology and Psychology 161
MA Program 286
Major Program 160
Minor Program 162
PhD Program 286
Post Baccalaureate Diploma in Criminology 7, 144, 162
Culture Studies, Art and
See Art and Culture Studies
Culture Teaching Certificate, Dialogic Language and 239
Curriculum Renewal 29

D
Dance
Extended Minor Program 156
Major Program 155
See also Contemporary Arts, School for the Date Calendar 460
Dates, Significant Future 11
David Lam Centre for International Communication 450
Deadlines, Application 34
Declare Majors, Minors 30
Definitions 31
Degree
Applied Sciences graduate degrees 270
Applied Sciences undergraduate degrees 124
Arts and Social Sciences graduate degrees 284
Arts and Social Sciences undergraduate degrees 144
Business Administration graduate degrees 304
Business Administration undergraduate degrees 200
Education graduate degrees 310
Education undergraduate degrees 206
Health Sciences graduate degree 314
Health Sciences undergraduate degrees 212
Honorary Degrees 7
Replacement for an Original Degree 52
Science graduate degrees 316
Science undergraduate degrees 213
See also Bachelor’s Program, or Master’s Program, or Doctoral Program
Degree Requirements
advice 30
BC University Holders admission requirements 39
Regulations for Award of the Graduate Degree 251
See also Graduate General Regulations and individual programs
Deposit for New Students, Payment of the Confirmation 53
Development and Programming Centre, Student 20
Development Studies
Graduate Certificate in Development Studies 269
Graduate Certificate Program 7
Dialogic Language and Culture Teaching Certificate 239
Dialogue
Dialogue Institute 449
Morris J. Wosk Centre for Dialogue 23
Undergraduate Semester in Dialogue 242
Courses 361
Diamond Alumni Centre 13
Dining Services 13
Diploma Programs (credit), See Post Baccalaureate Diplomas
Diploma Programs (graduate)
Advanced Professional Studies in Education 313
Bioinformatics 316
Business Administration 304
Quantitative Methods in Fisheries Management 282
Requirements 248
School of Resource and Environmental Management 270
Urban Studies 284, 302
Diploma Programs (non-credit) 239
Management Skills in Advanced Technology 239
Object Technology 239
Disabilities
 Admission for Students with Disabilities 35
Centre for Students with Disabilities 13
Discover SFU orientation program 20
Dishonesty, Penalties for Acts of Academic 245
Distance Education
Centre for Online and Distance Education 16, 239
Courses offered by Distance Education 32
Diverse Qualifications Admission Policy 35
Division 32
Doctoral Program
Admission to a Doctoral Program 246
Applied and Computational Mathematics 320
Archaeology 284
Business Administration, Faculty of 307
Chemistry 317
Communication 271
Computing Science 273
Criminology 286
Economics 287
Education 312
Engineering Science 275
English 289
Geography 291
History 295
Kinesiology 281
Linguistics 295
Mathematics 320
Molecular Biology and Biochemistry 320
Philosophy 296
Physics 322
Political Science 297
Psychology 298
Resource and Environmental Management 283
Sociology and Anthropology 302
Women’s Studies 303
Doctoral Students 249
Doctoral Thesis 248
Notification of Doctoral Thesis Examination 250
Preparation for Examination of Doctoral Thesis 250
Double Major and Major–Minor Programs 29
Double Major Program 29
Double Minor Option 135
Dual Degree Program
Computing Science 130
DUC 13
Dues for student society, Membership 20
Duplicate Courses 146
Affect on Readmission 50
Credit Granted for Duplicate Courses 49
for Readmission 50
Limits on Duplication of Courses 45
Duplicate Transfer Credit 45

E
Early Childhood Education, Post Baccalaureate Diploma in 209
Earth Sciences, Department of 218, 318
Certificate in Forestry Geoscience 7, 219
Co-operative Education Program 219
Courses 362
Honors Program 219
Major Program 219
Minor Program 219
MSc Program 318
Professional Registration as a BC Geoscientist 220
Ecology Research Group, Behavioural 448
Economic Development, Aboriginal Community 238
Economics, Department of 33, 287
Admission Information 163
Co-operative Education 165
Courses
BUC 338
ECON 364
Honors Program 164
Joint Honors in Business Administration and Economics 164
Joint Major in Business Administration and Economics 164
MA Program 287
Major Program 164
Minor Program 165
PhD Program 287
Requirements for the BA Degree 164
Research on Immigration and Integration in the Metropolis 288
Editing Certificate 239
Education, Faculty of 206, 309
Bachelor of Education as a Second Degree 206
Bachelor of Education Program 206
Certificate in Literacy Instruction 7, 206, 209
Co-operative Education 210
Courses
EDPR 376
EDUC 369
Field Programs 210, 313
Graduate Diploma in Advanced Professional Studies in Education 313
Graduate Programs 310
Admission 310
Doctoral Programs 312
Master’s Programs 310
Programs of Study for a Doctoral Student 313
Programs of Study for a Master’s Degree 311
Honors Program 206
Irregular Admission 39
Mathematical Sciences Specialization 207
Minor Programs
Counselling and Human Development 207
Curriculum and Instruction 207
Early Childhood Education 207
Education and Technology 207
Educational Psychology 207
Environmental Education 207
International and Global Education 208
Physical Education 208
Secondary Mathematics Education 209
Post Baccalaureate Diplomas 206
Early Childhood Education 7, 206, 209
General Diploma 7, 209
Special Education 7, 206, 209
Professional Development Program 207
Professional Programs 210
Teachers Qualification Service 211
Undergraduate Programs 206
Education, Institute for Studies in Teacher 451
Education, Law and Society, The Centre for 449
Education, Post Baccalaureate Diploma in French and 144
Educational Technology and Learning Courses 376
See also Interactive Arts and Technology, School of Electronic Commerce, Communication and Communities Usability Lab 21
Electronics Design, Minor in Computer and 131, 134
Electronics Engineering Option 132
Emeriti
Chancellors 454
Presidents 454
Professors 454
See also individual departments and programs
Endowed Chairs and Professors 453
Engineering Science, School of 131, 274
BASc Program 131
Biomedical Engineering Stream 134
Political Science 187
Psychology 190
Science, Faculty of 213
Sociology 193
Statistics 195, 237
Housing Office, Residence and. See Residence and Housing Office
How to Apply for
Human Nutrition, Certificate in Applied 7, 124, 142
Human Rights Office 14
Human Subjects Ethics Review 248
Humanities and Women’s Studies, Joint Major in 198
Humanities, Department of 177
Asia-Canada Program 148, 178
Certificate in Hellenic Studies 144
Co-operative Education 178
Courses 397
Extended Minor Program 178
Joint Major Programs 178
English and Humanities 177
French and Humanities 177
History and Humanities 178
Philosophy and Humanities 178
Major Program 178
Minor Program 178
Post Baccalaureate Diploma in Humanities 7, 144, 178
Humanities, Institute for the 450
Identification Card Replacement Fee, Library/ 52
Immigration and Integration in the Metropolis, Research on 288
Independent Schools, Admission Requirements 37
InfoNet Media Lab 21
Information and Registration Services, Harbour Centre 23
Information Science Program, Geographic
See Geographic Information Science Program
Information Systems in Business Administration and Computing Science, Joint Major in 130, 200, 203
Information Technology
Courses 398
Institute for Canadian Urban Research Studies 448
Institute for Critical Studies in Gender and Health 449
Institute for Health Research and Education 315
Institute for Studies in Criminal Justice Policy 449
Institute for Studies in Teacher Education 451
Institute for the Humanities 450
Institute for the Mathematical Sciences, Pacific 450
Institute of Governance Studies 450
Institute of Micromachine and Microfabrication Research 450
Institutes, Centres and. See Centres and Institutes
Instructional Computing Facility, Royal Bank 24
Instructional Development Centre, Learning and 15
Integrated Studies
Admission Requirements for Mid-Career Adults 35
Faculty of Arts and Social Sciences requirements 146
leading to a Bachelor of General Studies 238
Integration in the Metropolis, Research on Immigration and 288
Interactive Arts and Technology, School of 136, 276
Admission Requirements 136
BSc (Information Technology, TechBC) 138
BSc (Interactive Arts, TechBC) 138
Computing Arts and Design Sciences 276
Fields of Study, Research, and Research Facilities 276
Program Structure 276
Co-operative Education Program 139
Courses
ETEC 376
IART 401
IAT 403
INTD 407
ITEC 398
TECH 444
Degrees Offered 276
Four Streams 136
Honors Program 138
MA Program 277
Major Program 137
Minor in Interactive Arts and Technology 138
MSc Program 277, 278
Multimedia Joint Program 136
PhD Program 277, 279
Program Structure 136
Programs Offered 136
TechOne
Interactivity Lab 21
Intercultural Relations
Certificate in Ethnic and Intercultural Relations 7, 144
Post Baccalaureate Diploma in Ethnic and Intercultural Relations 194
Interdisciplinary Courses 407
Interdisciplinary Research in the Mathematical and Computational Sciences 450
Interfaith/Chaplaincy Centre 15
International Baccalaureate Admission Requirements 42
International Centre for Criminal Law Reform and Criminal Justice Policy 449
International Communication, David Lam Centre for 450
International Program Fees 52
International Students
Admission Requirements 41
Undergraduate Financial Assistance 117, 268
See also SFU International
International Studies 178
Courses 408
Honors Program 178
Major Program 178
Minor Program 179
Interpreter Program
Basic Interpreter Certificate Program 239
Irregular Admission (Faculty of Education) 39
Italian Courses 408
general information 171
Italian Studies, Certificate in 7
Japanese Courses 408
Joint Honors Programs 29
Bachelor of Arts 145
Business Administration and Economics 164, 200, 204
Canadian Studies 150
Definition 29
Mathematics and Computing Science 130
Molecular Biology and Biochemistry 231
Sociology and Anthropology 193
Joint Major Programs 29, 145
See also Major Programs
Anthropology and Sociology 192
Anthropology and Sociology, and Art and Culture Studies 159
Anthropology or Sociology and Art and Culture Studies 159
Archaeology and Anthropology 143
Archaeology and First Nations Studies 167
Business Administration and Communication 200, 203
Business Administration and Economics 164, 200, 203
Business Administration and Geography 200, 204
Business Administration and Latin American Studies 200, 204
Business Administration and Psychology 204
Business and Geography 204
Canadian Studies 150
Canadian Studies and History 150
Canadian Studies and Sociology and/or Anthropology 150
Computing Science and Molecular Biology and Biochemistry 230
Criminology and Psychology 161
Criminology and Women’s Studies 197
Definition 29
English and French Literatures 169
English and Humanities 177
English and Women’s Studies 197
French and Humanities 177
French, History and Politics 170
Geography and Economics 179
Specialty 173
History and Humanities 178
History and Women’s Studies 198
Humanities and Women’s Studies 198
Information Systems in Business Administration and Computing Science 130, 200, 203
Interactive Arts and Technology 136
Latin American Studies 180
Linguistics and Anthropology 182
Linguistics and Sociology and Anthropology 182
Molecular Biology and Biochemistry and Business Administration 231
Philosophy and Humanities 178
Political Science and Business Administration 188
Political Science and Canadian Studies 188
Political Science and Economics 188
Political Science and Latin American Studies 188
Political Science and Women’s Studies 189
Psychology and Criminology 161, 190
Sociology and Anthropology 191
Sociology and Anthropology and Communication 192
Sociology or Anthropology and Criminal Law Reform and Criminal Justice Policy 449
Sociology or Anthropology and Criminal Law Reform 192
Sociology or Anthropology and Latin American Studies 193
Sociology or Anthropology and Women’s Studies 198
Women’s Studies and Psychology 198
Joint Master Program
English and French Literatures 290
Justice and Public Safety Leadership Program 238
Justice Policy, Institute for Studies in Criminal 449
Justice, Centre for Restorative 451
Kinesiology, School of 139, 280
Certificate Programs
Applied Human Nutrition 124, 142
Health and Fitness Studies 124, 142
Co-operative Education Program 142
Courses 408
Honors Program 141
Major Program 139
Minor Program 142
MSc Program (Course Work) 280
MSc Program (Thesis) 280
PhD Program 281
Post Baccalaureate Diploma 7, 124, 142
Transfer Credit and Residency Requirements 139
Labor Studies
Centre for Labor Studies 450
Certificate in Labor Studies 7, 144, 176
Courses 412
Minor Program 176
Language and Culture Teaching Certificate, Dialogic 239
Language Learning Centre 184
Language Program, Self Instructional 239
Language Requirements, English 35
Language Training Institute 183
Chinese courses 341
German courses 390
Greek courses 391
Japanese courses 408
Language courses 412
Spanish courses 442
Late Fee Payment, Penalty for 253
Latin American Studies Program 180, 294
Admission Requirements 294
Co-operative Education 181
Courses 412, 413
Courses with Exclusive Latin American Content 181
Courses with Partial Latin American Content 181
Extended Minor Program 180
Field School 181
Joint Major Programs 180
MA Requirements 294
<table>
<thead>
<tr>
<th>Major Programs</th>
<th>29, 144</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Graduate Latin American Content Courses</td>
<td>294</td>
</tr>
<tr>
<td>Special Arrangements</td>
<td>294</td>
</tr>
<tr>
<td>Latin American Studies, Joint Major in Business Administration and 200</td>
<td>204</td>
</tr>
<tr>
<td>Latin American Studies, Joint Major in Business and 204</td>
<td>204</td>
</tr>
<tr>
<td>Latin American Studies, Joint Major in Sociology or Anthropology and 193</td>
<td>193</td>
</tr>
<tr>
<td>Law and Policy Institute, Mental Health, 450</td>
<td>450</td>
</tr>
<tr>
<td>Law and Society, Feminist Institute for Studies on 449</td>
<td>449</td>
</tr>
<tr>
<td>Law and Society, The Centre for Education, 449</td>
<td>449</td>
</tr>
<tr>
<td>Leadership Program, Justice and Public Safety 238</td>
<td>238</td>
</tr>
<tr>
<td>Learning and Instructional Development Centre 15</td>
<td>15</td>
</tr>
<tr>
<td>Learning, Educational Technology and</td>
<td></td>
</tr>
<tr>
<td>See Educational Technology and Learning</td>
<td></td>
</tr>
<tr>
<td>Lectures, Exhibitions and Special Events</td>
<td>24</td>
</tr>
<tr>
<td>Letters of Permission</td>
<td>45</td>
</tr>
<tr>
<td>Liberal and Business Studies</td>
<td>238</td>
</tr>
<tr>
<td>Liberal Arts</td>
<td></td>
</tr>
<tr>
<td>Certificate 7, 144, 146</td>
<td></td>
</tr>
<tr>
<td>Co-operative Education Program</td>
<td>144</td>
</tr>
<tr>
<td>Courses 414</td>
<td>414</td>
</tr>
<tr>
<td>Liberal Studies Program</td>
<td>294</td>
</tr>
<tr>
<td>Admission 294</td>
<td>294</td>
</tr>
<tr>
<td>Courses 414</td>
<td>414</td>
</tr>
<tr>
<td>Degree Requirements 294</td>
<td>294</td>
</tr>
<tr>
<td>Liberal Studies Courses</td>
<td>295</td>
</tr>
<tr>
<td>Library</td>
<td></td>
</tr>
<tr>
<td>Library/Identification Card Replacement Fee 52</td>
<td>52</td>
</tr>
<tr>
<td>Library/Identification Cards 47</td>
<td>47</td>
</tr>
<tr>
<td>Replacement Library Card Fee 253</td>
<td>253</td>
</tr>
<tr>
<td>Samuel and Frances Belzberg Library 15, 23</td>
<td>15, 23</td>
</tr>
<tr>
<td>Simon Fraser University Surrey Library 16, 21</td>
<td>16, 21</td>
</tr>
<tr>
<td>staff 453</td>
<td>453</td>
</tr>
<tr>
<td>W.A.C. Bennett Library 15</td>
<td>15</td>
</tr>
<tr>
<td>LIDC at Surrey 21</td>
<td>21</td>
</tr>
<tr>
<td>Linguistics, Department of 181, 295</td>
<td>181, 295</td>
</tr>
<tr>
<td>Certificate Programs</td>
<td></td>
</tr>
<tr>
<td>First Nations Language Proficiency 144, 182</td>
<td>144, 182</td>
</tr>
<tr>
<td>Spanish Language Proficiency 144, 184</td>
<td>144, 184</td>
</tr>
<tr>
<td>Teaching ESL Linguistics 7, 144, 183</td>
<td>7, 144, 183</td>
</tr>
<tr>
<td>Courses 415</td>
<td>415</td>
</tr>
<tr>
<td>Extended Minor Program 182</td>
<td>182</td>
</tr>
<tr>
<td>Honors Program 182</td>
<td>182</td>
</tr>
<tr>
<td>Joint Major in Linguistics and Anthropology 182</td>
<td>182</td>
</tr>
<tr>
<td>Language Training Institute 183</td>
<td>183</td>
</tr>
<tr>
<td>MA Program 295</td>
<td>295</td>
</tr>
<tr>
<td>Major Program 182</td>
<td>182</td>
</tr>
<tr>
<td>Minor Program 182</td>
<td>182</td>
</tr>
<tr>
<td>PhD Program 223</td>
<td>223</td>
</tr>
<tr>
<td>Post Baccalaureate Diploma in Teaching English as a Second Language 144, 183</td>
<td>144, 183</td>
</tr>
<tr>
<td>Spanish Language Courses</td>
<td>184</td>
</tr>
<tr>
<td>Courses 184</td>
<td>184</td>
</tr>
<tr>
<td>Literacy Instruction, Certificate in 7, 206, 209</td>
<td>7, 206, 209</td>
</tr>
<tr>
<td>Loans</td>
<td></td>
</tr>
<tr>
<td>Bursaries and Loans for graduate students 263</td>
<td>263</td>
</tr>
<tr>
<td>External Loans for undergraduate students 116</td>
<td>116</td>
</tr>
<tr>
<td>Government Loans for undergraduate students 116, 267</td>
<td>116, 267</td>
</tr>
<tr>
<td>Logic and Functional Programming Group 450</td>
<td>450</td>
</tr>
</tbody>
</table>

**M**

<table>
<thead>
<tr>
<th>Major Programs</th>
<th>29, 144</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Program 180</td>
<td></td>
</tr>
<tr>
<td>Other Graduate Latin American Content Courses</td>
<td>294</td>
</tr>
<tr>
<td>Special Arrangements</td>
<td>294</td>
</tr>
<tr>
<td>Latin American Studies, Joint Major in Business Administration and 200</td>
<td>204</td>
</tr>
<tr>
<td>Latin American Studies, Joint Major in Business and 204</td>
<td>204</td>
</tr>
<tr>
<td>Latin American Studies, Joint Major in Sociology or Anthropology and 193</td>
<td>193</td>
</tr>
<tr>
<td>Law and Policy Institute, Mental Health, 450</td>
<td>450</td>
</tr>
<tr>
<td>Law and Society, Feminist Institute for Studies on 449</td>
<td>449</td>
</tr>
<tr>
<td>Law and Society, The Centre for Education, 449</td>
<td>449</td>
</tr>
<tr>
<td>Leadership Program, Justice and Public Safety 238</td>
<td>238</td>
</tr>
<tr>
<td>Learning and Instructional Development Centre 15</td>
<td>15</td>
</tr>
<tr>
<td>Learning, Educational Technology and</td>
<td></td>
</tr>
<tr>
<td>See Educational Technology and Learning</td>
<td></td>
</tr>
<tr>
<td>Lectures, Exhibitions and Special Events</td>
<td>24</td>
</tr>
<tr>
<td>Letters of Permission</td>
<td>45</td>
</tr>
<tr>
<td>Liberal and Business Studies</td>
<td>238</td>
</tr>
<tr>
<td>Liberal Arts</td>
<td></td>
</tr>
<tr>
<td>Certificate 7, 144, 146</td>
<td></td>
</tr>
<tr>
<td>Co-operative Education Program</td>
<td>144</td>
</tr>
<tr>
<td>Courses 414</td>
<td>414</td>
</tr>
<tr>
<td>Liberal Studies Program</td>
<td>294</td>
</tr>
<tr>
<td>Admission 294</td>
<td>294</td>
</tr>
<tr>
<td>Courses 414</td>
<td>414</td>
</tr>
<tr>
<td>Degree Requirements 294</td>
<td>294</td>
</tr>
<tr>
<td>Liberal Studies Courses</td>
<td>295</td>
</tr>
<tr>
<td>Library</td>
<td></td>
</tr>
<tr>
<td>Library/Identification Card Replacement Fee 52</td>
<td>52</td>
</tr>
<tr>
<td>Library/Identification Cards 47</td>
<td>47</td>
</tr>
<tr>
<td>Replacement Library Card Fee 253</td>
<td>253</td>
</tr>
<tr>
<td>Samuel and Frances Belzberg Library 15, 23</td>
<td>15, 23</td>
</tr>
<tr>
<td>Simon Fraser University Surrey Library 16, 21</td>
<td>16, 21</td>
</tr>
<tr>
<td>staff 453</td>
<td>453</td>
</tr>
<tr>
<td>W.A.C. Bennett Library 15</td>
<td>15</td>
</tr>
<tr>
<td>LIDC at Surrey 21</td>
<td>21</td>
</tr>
<tr>
<td>Linguistics, Department of 181, 295</td>
<td>181, 295</td>
</tr>
<tr>
<td>Certificate Programs</td>
<td></td>
</tr>
<tr>
<td>First Nations Language Proficiency 144, 182</td>
<td>144, 182</td>
</tr>
<tr>
<td>Spanish Language Proficiency 144, 184</td>
<td>144, 184</td>
</tr>
<tr>
<td>Teaching ESL Linguistics 7, 144, 183</td>
<td>7, 144, 183</td>
</tr>
<tr>
<td>Courses 415</td>
<td>415</td>
</tr>
<tr>
<td>Extended Minor Program 182</td>
<td>182</td>
</tr>
<tr>
<td>Honors Program 182</td>
<td>182</td>
</tr>
<tr>
<td>Joint Major in Linguistics and Anthropology 182</td>
<td>182</td>
</tr>
<tr>
<td>Language Training Institute 183</td>
<td>183</td>
</tr>
<tr>
<td>MA Program 295</td>
<td>295</td>
</tr>
<tr>
<td>Major Program 182</td>
<td>182</td>
</tr>
<tr>
<td>Minor Program 182</td>
<td>182</td>
</tr>
<tr>
<td>PhD Program 223</td>
<td>223</td>
</tr>
<tr>
<td>Post Baccalaureate Diploma in Teaching English as a Second Language 144, 183</td>
<td>144, 183</td>
</tr>
<tr>
<td>Spanish Language Courses</td>
<td>184</td>
</tr>
<tr>
<td>Courses 184</td>
<td>184</td>
</tr>
<tr>
<td>Literacy Instruction, Certificate in 7, 206, 209</td>
<td>7, 206, 209</td>
</tr>
<tr>
<td>Loans</td>
<td></td>
</tr>
<tr>
<td>Bursaries and Loans for graduate students 263</td>
<td>263</td>
</tr>
<tr>
<td>External Loans for undergraduate students 116</td>
<td>116</td>
</tr>
<tr>
<td>Government Loans for undergraduate students 116, 267</td>
<td>116, 267</td>
</tr>
<tr>
<td>Logic and Functional Programming Group 450</td>
<td>450</td>
</tr>
</tbody>
</table>
Media and Public Relations Office 16
Media Production Group 15
Medical Requirements 46
Medical Services Plan, British Columbia 35
Meeting and Event Services, Harbour Centre 25
Membership Dues for student society 20
Mental Health, Law and Policy Institute 450
message URL http://www.lib.sfu.ca/about/surrey/ 16
Microcomputer Store 16
Microfabrication Research, Institute of Micromachine and
Micromachine and Microfabrication Research, Institute of 450
Minor Programs 29, 145
Institute of 450
Micromachine and Microfabrication Research, Institute of 450
Minor Programs 29, 145
See also Extended Minor Programs
Anthropology 193
Archaeology 148
Art and Culture Studies 155
Asia-Canada 148, 178, 179
Biochemistry 231
Biological Sciences 216
Business Administration 202
Canadian Studies 150
Chemistry 218
Communication 125
Computer and Electronics Design 131, 134
Computing Science 129
Criminology 162
Definition 29
Earth Sciences 219
Economics 165
Education
Counselling and Human Development 207
Curriculum and Instruction 207
Early Childhood Education 207
Education and Technology 207
Educational Psychology 207
Elementary School Physical Education 207, 208
Environmental Education 207
International and Global Education 208
Learning Disabilities 208, 209
Physical Education 208
Secondary Mathematics Education 209
English 166
Environmental Chemistry 218
Film and Video Studies 156
Fine and Performing Arts 159
First Nations Studies 166
Gender Studies 199
General Science 223
Geography Program (Faculty of Science), Physical 232
Gerontology 174
History 176
Humanities 178
Interactive Arts and Technology 138
International Studies 179
Kinesiology 142
Labor Studies 176
Latin American Studies 180
Linguistics 182
Mathematics (BA) 185
Mathematics (BSc) 228
Nuclear Science 218
Philosophy 185
Physical Geography Program (Faculty of Science) 232
Physics 235
Political Science 188
Psychology 190
Publishing 125
Sociology 193
Sociology and Anthropology 193
Statistics 237
Women's Studies 199
Misconduct, Penalties for Acts of Student 245
Molecular Biology and Biochemistry, Department of 229, 320
Admission 320
Co-operative Education Program 231
Courses 422
Courses Offered by Other Departments 321
Degree Requirements 320
Diploma Programs
Graduate Diploma in Bioinformatics 321
Graduate Course Work at Other Universities 321
Honors Program 230
Joint Honors Program 231
Joint Honors Programs
Molecular Biology and Biochemistry and
Business Administration 231
Joint Major Programs
Computing Science and Molecular Biology and
Biochemistry 230
Molecular Biology and Biochemistry and
Business Administration 231
Major Program 229
MSc Program 320
PhD Program 320
Morris J. Wosk Centre for Dialogue 23
Multimedia Computing, Specialist Program in 129
Museum of Archaeology and Ethnology 16
Music
Music Extended Minor 157
Music Major Program 157
See also Contemporary Arts, School for the
N
National Ballet School, Program with 155
Native Studies Research, Certificate in 7, 144, 167
New Student Orientation 20
Newspaper, The Peak 16
Nighttime, SPU 14
Non-core Courses 239
Certificates, Diplomas and Non-credit Courses 239
Non-degree Graduate Student, Admission as a 246
Non-degree, Qualifying and Special Students 254
Nuclear Science
Courses 235, 425
Minor Program 218
Nutrition, Certificate in Applied Human 7, 124
Object Technology Diploma Program 239
On Campus Housing 17
Offers of Admission 34
Ombuds Office 16
On Leave Fee 253
Orientation, New Student 20
Overdue Accounts 54, 254
Pacific Institute for the Mathematical Sciences 450
Parking Services 12
Part Time Credit Study 238
Payment
Payment of Fees 53
Payment of the Registration Tuition Deposit for
Continuing Students 54
Penalty for Late Fee Payment 253
Payment of Fees 53
Peak Newspaper, The 16
Penalty Programs 14
Penalties
Penalties for Acts of Academic Dishonesty 245
Penalties for Acts of Student Misconduct 245
Penalties, Tuition Refund Policy and Course Drop 54
Penalty for Late Fee Payment 54
Personal Information Profile 35
Pest Management 317
Philosophy, Department of 185, 296
Courses 425
Extended Minor Program 186
Honors Program 185
MA Program 296
Major Program 185
Minor Program 185
PhD Program 296
Reading Lists and Course Outlines 186
Seminars and Special Topics Courses 186
Upper Division Courses Listed by Field 186
Physical Education, Minor in 208
Physical Geography Program (BSc) 231
Co-operative Education 232
Honors Program 232
Major Program 231
Minor Program 232
Professional Registration as a BC Geoscientist 232
Physics, Department of 232, 321
Computer Skills 233
Co-operative Education Program 235
Courses 427
First Year Physics 233
Honors Programs
Applied Physics 233
Chemical Physics 234
Mathematical Physics 234
Physics 234
Physics and Physiology 235
Major Programs
Applied Physics 233
Chemical Physics 233
Physics 233
Minimum Grade Requirement 233
Minor Program
Physics 235
MSc Program 320
Nuclear Science Courses 235, 422, 425
Open Workshops 233
PhD Program 322
Recommended Programs 233
Physiotherapy Clinic 14
Policy and Research, Centre for Tourism 282, 451
Policy Institute, Mental Health, Law and 450
Policy Research on Science and Technology, Centre 451
Political Science and Canadian Studies, Joint Major in 188
Political Science and Economics, Joint Major in 188
Political Science, Department of 186, 297
Admission 297
Co-operative Education Program 189
Courses 429
Degree Requirements 297
MA Program 297
PhD Program 297
Extended Minor Program 188
Fields of Study 186, 297
Honors Program 187
Joint Major in Political Science and Canadian
Studies 188
Joint Major Programs
Political Science and Canadian Studies 188
Political Science and Economics 188
Political Science and Latin American Studies 188
Political Science and Women’s Studies 189
Major Program 187
Minor Program 188
Public Administration and Community Services
Program 187
Post Baccalaureate Diplomas 7, 30, 144, 146
Biological Sciences 7, 213, 216
Communication 7, 124, 126
Community Economic Development 7, 144, 196
Computing Science 7, 124, 130
Criminology 7, 144, 162
Definition 30
Early Childhood Education 7, 209
Education 7, 206, 209
English as a Second Language, Teaching 7, 144, 163
Ethnic and Intercultural Relations 194
Faculty of Arts and Social Sciences 7
French and Education 7, 144, 170
Gerontology 7, 144, 174
Humanities 7, 144, 178
Kinesiology 7, 124, 142
Public History 7, 144
Social Policy Issues 7, 144, 194
Special Education 7, 209
Teaching English as a Second Language 7, 144, 183
Praxis Centre for Screenwriters 159
Prerequisite 32
See also individual courses in Course Catalogue