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## MEMORANDUM

ATTENTION	Senate	DATE	November 8, 2019
FROM	Wade Parkhouse, Chair	PAGES	1/3
	Senate Committee on		
	Undergraduate Studies		
RE:	Program Changes		



## For information:

Acting under delegated authority at its meeting of November 7, 2019 SCUS approved the following curriculum revisions effective Summer 2020.

**a. Faculty of Arts and Social Sciences (SCUS 19-60)****1. School of Criminology (Fall 2020)**

- (i) Lower division (Group B) requirement changes to the Criminology Major and Honours programs
- (ii) Lower division Criminology requirement changes to the Criminology and Gender, Sexuality and Women's Studies Joint Major program
- (iii) Upper division and course access and requirements changes to the Legal Studies Minor program
- (iv) Lower division (Group B) requirement changes to the Criminology Extended Minor program
- (v) Requirement changes to the Legal Studies Certificate program
- (vi) Requirement changes to the Legal Studies Post Baccalaureate Diploma

**2. Department of Economics (Fall 2020)**

- (i) Lower division requirement changes to the:
  - ECON Major
  - ECON Honours
  - ECON-BUS Joint Major
  - ECON-POL Joint Major
  - ECON-BUS Joint Honours
  - ECON Extended Minor programs

### 3. First Nations Languages Program

- (i) Description and requirement changes for the Certificate in First Nations Language Proficiency (CFNLP)
- (ii) Description change for the Diploma in First Nations Language Proficiency (DFNLP)

### 4. Department of French

- (i) Upper division requirement changes for the French Honours program

### 5. School for International Studies

- (i) Upper division requirement changes to the International Studies Minor program

### 6. Department of Psychology

- (i) Upper division requirement changes for the:

- PSYC Minor, Extended Minor, Major, Honours, Joint Major with Crim, Joint Major with Business, Joint Major with Gender, Sexuality and Women's Studies
- Behavioural Neuroscience Major and Honours
- PSYC Major with ABA Concentrations
- PSYC Honours with ABA Concentrations

- (ii) Upper division requirement changes to the PSYC Major, Major with ABA Concentration, PSYC Joint Major with CRIM, PSYC Joint Major with GSWS and PSYC Joint Major with BUS

- (iii) Upper division requirement changes to the PSYC Extended Minor program

## b. Faculty of Communication, Art and Technology (SCUS 19-61)

### 1. School of Communication

- (i) Changes to description, admission and upper division requirement changes to the Dialogue Minor program

- (ii) Lower division requirement changes to the:

- Communication Major
- Communication Honours
- Anthropology and Communication Joint Major
- Business and Communication Joint Major
- Communication and Interactive Arts and Technology Joint Major Bachelor of Arts
- Communication and Interactive Arts and Technology Joint Major Bachelor of Science
- English and Communication Joint Major
- Sociology and Communication Joint Major

- (iii) Changes to the description, admission and upper and lower division requirement changes to the Communication Extended Minor program

2. School of Interactive Arts and Technology

- (i) Adding the Accelerated Master's Degree Program description to the Interactive Arts and Technology Second Degree (Bachelor of Arts) and (Bachelor of Sciences) programs
- (ii) Requirement changes to the Communication and Interactive Arts and Technology Joint Major Bachelor of Science and Bachelor of Arts programs

c. Faculty of Environment (SCUS 19-62)

1. Department of Geography (Fall 2020)

- (i) Upper and lower division requirement changes to the Physical Geography Minor Program
- (ii) Changes to the description and the upper and lower division requirements for the Physical Geography Major and Honours (Bachelor of Science) programs

Senators wishing to consult a more detailed report of curriculum revisions may do so on the Senate Docushare repository at <https://docushare.sfu.ca/dsweb/View/Collection-12682>.

**Calendar Entry Change****Name of Program or Name of Faculty Criminology Major, Criminology Honours****Rationale for change:**

Replace STAT 100 – Chance and Data Analysis, with STAT 201 – Statistics for the Life Sciences, as it is much more suitable for our students

Effective term and year: Fall 2020

The following program(s) will be affected by these changes:

Criminology Major

Criminology Honours

**Calendar Change:** “to” and “from” sections are not required. All deletions should be crossed out as follows: ~~sample~~. All additions should be marked by a **bold**.

**Program Requirements**

A minimum of 120 units, including a minimum of 45 upper division units, as specified below.

**Lower Division Requirements**

• • •

**Group B Lower Division Requirements**

• • •

and

STAT 203 - Introduction to Statistics for the Social Sciences (3)

or one of

BUS 232 - Data and Decisions I (4)

PSYC 210 - Introduction to Data Analysis in Psychology (4)

~~STAT 100 - Chance and Data Analysis (3)~~

**STAT 201 – Statistics for the Life Sciences (3)**

STAT 205 - Introduction to Statistics (3)

**Calendar Entry Change**

**Name of Program or Name of Faculty Criminology and Gender, Sexuality and Women's Studies Joint Major**

**Rationale for change:**

Replace STAT 100 – Chance and Data Analysis, with STAT 201 – Statistics for the Life Sciences, as it is much more suitable for our students

**Effective term and year:** Fall 2020

**The following program(s) will be affected by these changes:**

Criminology and Gender, Sexuality and Women's Studies Joint Major

**Calendar Change:** “to” and “from” sections are not required. All deletions should be crossed out as follows: ~~sample~~. All additions should be marked by a **bold**.

**Program Requirements**

A minimum of 120 units, including a minimum of 45 upper division units, as specified below.

**Lower Division Requirements**

• • •

and

STAT 203 - Introduction to Statistics for the Social Sciences (3)

or one of

BUS 232 - Data and Decisions I (4)

~~STAT 100 – Chance and Data Analysis (3)~~

**STAT 201 – Statistics for the Life Sciences (3)**

STAT 205 - Introduction to Statistics (3)

**Calendar Entry Change****Name of Program or Name of Faculty Criminology – Legal Studies Minor**

Rationale for change:

Addition of new elective, GEOG 440, Property, Land, Society, as it is suitable for this Program

Effective term and year: Fall 2020

The following program(s) will be affected by these changes:

Legal Studies Minor

**Calendar Change:** “to” and “from” sections are not required. All deletions should be crossed out as follows: ~~sample~~. All additions should be marked by a **bold**.

**Legal Studies Minor**

• • •

**Upper Division Course Access and Requirements**

• • •

BUS 393 - Commercial Law (3)

CRIM 310 - Young Offenders and Criminal Justice: Advanced Topics (3)

CRIM 314 - Mental Disorder, Criminality and the Law (3)

CRIM 317 - Sex, Work, and the Law (3)

CRIM 330 - Criminal Procedure and Evidence (3)

CRIM 331 - Advanced Criminal Law (3)

CRIM 333 - Gender, Law and the State (3)

CRIM 334 - Law and Human Reproduction (3)

CRIM 335 - Human Rights and Civil Liberties (3)

CRIM 336 - Corporate Crime and Corporate Regulation (3)

CRIM 416 - Current Issues in Criminology and Criminal Justice (3)

CRIM 417 - Current Issues in Criminology and Criminal Justice (3)

CRIM 418 - Current Issues in Criminology and Criminal Justice (3)

CRIM 429 - Indigenous Peoples and International Law (3)

CRIM 432 - Gender in the Courts and the Legal Profession (3)

CRIM 436 - Corporate Crime and Corporate Regulation: Advanced Topics (3)

CRIM 437 - Crime and Misconduct in the Professions (3)

CRIM 438 - Wrongful Convictions and Other Miscarriages of Justice (3)

ECON 427W - Industrial Organization: Law and Economics (3)

EDUC 445 - Legal Context of Teaching (4)

EDUC 446 - Law for the Classroom Teacher (4)

EDUC 448 - Teaching about Justice, Law and Citizenship (4)

**GEOG 440 – Property, Land, Society (4)**

GSWS 411 - Special Topics in Gender, Sexuality, and Women's Studies (4) \*\*

HIST 443W - Aboriginal Peoples, History and the Law (4) or FNST 443W - Aboriginal Peoples, History and the Law (4)

PHIL 320 - Social and Political Philosophy (3)

PHIL 321 - Topics in Moral Philosophy (3)

POL 324 - The Canadian Constitution (4)

POL 344 - International Law (4)

POL 346 - International Organization (4)

POL 351 - Immigration, Integration, and Public Policy in Canada (4)

POL 417 - Human Rights Theories (4)

POL 459 - Selected Topics in Governance (4) \*

PSYC 376 - Experimental Psychology and Law (3)

PSYC 379 - Clinical Forensic Psychology (3)

PSYC 476 - Advanced Topics in Law and Forensic Psychology (4)

WL 303 - Global Culture and Its Discontents (4)

**Calendar Entry Change****Name of Program or Name of Faculty Criminology Extended Minor**

Rationale for change:

Replace STAT 100 – Chance and Data Analysis, with STAT 201 – Statistics for the Life Sciences, as it is much more suitable for our students

Effective term and year: Fall 2020

The following program(s) will be affected by these changes:

Criminology Extended Minor

**Calendar Change:** “to” and “from” sections are not required. All deletions should be crossed out as follows: ~~sample~~. All additions should be marked by a **bold**.

**Criminology Extended Minor**

• • •

**Group B Lower Division Requirements**

• • •

or one of

BUS 232 - Data and Decisions I (4)

PSYC 210 - Introduction to Data Analysis in Psychology (4)

~~STAT 100 – Chance and Data Analysis (3)~~

**STAT 201 – Statistics for the Life Sciences (3)**

STAT 205 - Introduction to Statistics (3)

**Calendar Entry Change****Name of Program or Name of Faculty CRIMINOLOGY – Legal Studies Certificate**

Rationale for change:

Addition of new elective, GEOG 440, Property, Land, Society, as it is suitable for this program

Effective term and year: Fall 2020

The following program(s) will be affected by these changes:

Legal Studies Certificate

**Calendar Change:** “to” and “from” sections are not required. All deletions should be crossed out as follows: ~~sample~~. All additions should be marked by a **bold**.

## Program Requirements

Students complete a total of six courses (18 units), including all of

CRIM 332 - Sociology of Law (3)  
CRIM 335 - Human Rights and Civil Liberties (3)  
CRIM 338 - Philosophy of Law (3)

and three courses chosen from

BUS 393 - Commercial Law (3)

ECON 427W - Industrial Organization: Law and Economics (3)

CRIM 310 - Young Offenders and Criminal Justice: Advanced Topics (3)

CRIM 314 - Mental Disorder, Criminality and the Law (3)

CRIM 317 - Sex, Work, and the Law (3)

CRIM 330 - Criminal Procedure and Evidence (3)

CRIM 331 - Advanced Criminal Law (3)

CRIM 333 - Gender, Law and the State (3)

CRIM 334 - Law and Human Reproduction (3)

CRIM 336 - Corporate Crime and Corporate Regulation (3)

CRIM 416 - Current Issues in Criminology and Criminal Justice (3) \*

CRIM 417 - Current Issues in Criminology and Criminal Justice (3) \*

- CRIM 418 - Current Issues in Criminology and Criminal Justice (3) \*
- CRIM 429 - Indigenous Peoples and International Law (3)
- FNST 429 - Indigenous Peoples and International Law (3)
- CRIM 432 - Gender in the Courts and the Legal Profession (3)
- CRIM 436 - Corporate Crime and Corporate Regulation: Advanced Topics (3)
- CRIM 437 - Crime and Misconduct in the Professions (3)
- CRIM 438 - Wrongful Convictions and Other Miscarriages of Justice (3)
- EDUC 445 - Legal Context of Teaching (4)
- EDUC 446 - Law for the Classroom Teacher (4)
- EDUC 448 - Teaching about Justice, Law and Citizenship (4)
- FNST 443W - Aboriginal Peoples, History and the Law (4) or HIST 443W - Aboriginal Peoples, History and the Law (4)
- GEOG 440 - Property, Land, Society (4)**
- GSWS 411 - Special Topics in Gender, Sexuality, and Women's Studies (4) \*\*
- PHIL 320 - Social and Political Philosophy (3)
- PHIL 321 - Topics in Moral Philosophy (3)
- POL 324 - The Canadian Constitution (4)
- POL 344 - International Law (4)
- POL 346 - International Organization (4)
- POL 351 - Immigration, Integration, and Public Policy in Canada (4)
- POL 417 - Human Rights Theories (4)
- POL 459 - Selected Topics in Governance (4) \*
- PSYC 376 - Experimental Psychology and Law (3)
- PSYC 379 - Clinical Forensic Psychology (3)
- PSYC 476 - Advanced Topics in Law and Forensic Psychology (4)
- WL 303 - Global Culture and Its Discontents (4)

**Calendar Entry Change**

**Name of Program or Name of Faculty CRIMINOLOGY – Legal Studies Post-Baccalaureate Diploma**

Rationale for change:

Addition of new elective, GEOG 440, Property, Land, Society, as it is suitable for this program

Effective term and year: Fall 2020

The following program(s) will be affected by these changes:

Legal Studies Post Baccalaureate Diploma

**Calendar Change:** “to” and “from” sections are not required. All deletions should be crossed out as follows: ~~sample~~. All additions should be marked by a **bold**.

## **Legal Studies** POST BACCALAUREATE DIPLOMA

### **Admission, Program Declaration, and Continuation**

Applicants must meet university undergraduate admission deadlines as shown in this Calendar. Application forms and official documents must be submitted to Student Services. In addition to applying for University admission, students apply in writing to the School of Criminology's advisor for certificate program declaration.

To continue in the program, students must maintain a 2.25 CGPA. Students whose CGPA falls below 2.25 cannot enroll in any upper division CRIM courses.

### **Program Requirements**

Students complete 30 approved upper division units, ensuring that they have the necessary lower division prerequisites for all courses in which they enroll.

Students complete both of

CRIM 332 - Sociology of Law (3)  
CRIM 338 - Philosophy of Law (3)

## **Concentrations**

In addition, students select one of the following concentrations and complete all of the courses listed.

### **Criminal Law**

CRIM 310 - Young Offenders and Criminal Justice: Advanced Topics (3)  
CRIM 314 - Mental Disorder, Criminality and the Law (3)  
CRIM 330 - Criminal Procedure and Evidence (3)  
CRIM 331 - Advanced Criminal Law (3)  
CRIM 335 - Human Rights and Civil Liberties (3)  
CRIM 438 - Wrongful Convictions and Other Miscarriages of Justice (3)

### **Women and Law**

CRIM 317 - Sex, Work, and the Law (3)  
CRIM 333 - Gender, Law and the State (3)  
CRIM 334 - Law and Human Reproduction (3)  
CRIM 335 - Human Rights and Civil Liberties (3)  
CRIM 432 - Gender in the Courts and the Legal Profession (3)  
GSWS 411 - Special Topics in Gender, Sexuality, and Women's Studies (4) \*

\* when offered as the topic Women and the Law

### **Psychology and the Law**

PSYC 376 - Experimental Psychology and Law (3)  
PSYC 379 - Clinical Forensic Psychology (3)  
PSYC 476 - Advanced Topics in Law and Forensic Psychology (4)  
CRIM 314 - Mental Disorder, Criminality and the Law (3)

### **Education and Law**

EDUC 445 - Legal Context of Teaching (4)  
EDUC 446 - Law for the Classroom Teacher (4)  
EDUC 448 - Teaching about Justice, Law and Citizenship (4)

## **Business, Economics and the Law**

ECON 427W - Industrial Organization: Law and Economics (3)  
BUS 393 - Commercial Law (3)

## **Fundamental Rights and Law**

CRIM 335 - Human Rights and Civil Liberties (3)  
CRIM 429 - Indigenous Peoples and International Law (3)  
PHIL 320 - Social and Political Philosophy (3)  
POL 324 - The Canadian Constitution (4)  
POL 417 - Human Rights Theories (4)

## **Additional Required Courses**

To total 30 units, students choose additional courses from the Legal Studies Minor Program electives list as shown below. Exemptions and replacements for required courses may be granted by the criminology associate director who is responsible for undergraduate programs.

ECON 427W - Industrial Organization: Law and Economics (3)  
BUS 393 - Commercial Law (3)  
CRIM 310 - Young Offenders and Criminal Justice: Advanced Topics (3)  
CRIM 314 - Mental Disorder, Criminality and the Law (3)  
CRIM 331 - Advanced Criminal Law (3)  
CRIM 333 - Gender, Law and the State (3)  
CRIM 335 - Human Rights and Civil Liberties (3)  
CRIM 336 - Corporate Crime and Corporate Regulation (3)  
CRIM 416 - Current Issues in Criminology and Criminal Justice (3) \*\*  
CRIM 417 - Current Issues in Criminology and Criminal Justice (3) \*\*  
CRIM 418 - Current Issues in Criminology and Criminal Justice (3) \*\*  
CRIM 432 - Gender in the Courts and the Legal Profession (3)  
CRIM 436 - Corporate Crime and Corporate Regulation: Advanced Topics (3)  
CRIM 437 - Crime and Misconduct in the Professions (3)  
CRIM 438 - Wrongful Convictions and Other Miscarriages of Justice (3)  
EDUC 445 - Legal Context of Teaching (4)  
EDUC 446 - Law for the Classroom Teacher (4)  
EDUC 448 - Teaching about Justice, Law and Citizenship (4)  
**GEOG 440 - Property, Land, Society (4)**  
PHIL 320 - Social and Political Philosophy (3)  
PHIL 321 - Topics in Moral Philosophy (3)  
POL 324 - The Canadian Constitution (4)

POL 344 - International Law (4)  
POL 346 - International Organization (4)  
POL 351 - Immigration, Integration, and Public Policy in Canada (4)  
POL 417 - Human Rights Theories (4)  
POL 459 - Selected Topics in Governance (4)  
WL 303 - Global Culture and Its Discontents (4)

Check with the school for additional relevant courses.

Declared Criminology Students may not take CRIM 301 for credit.

\*\*when offered as a legal topic

\*\*when offered as the topic Women and the Law

**Calendar Entry Change**  
**Economics, Faculty of Arts and Social Sciences****Rationale for changes:**

Econ is introducing a new introductory statistics course, ECON 233, as an alternate course to BUS 232. Business (Stephen Spector as well as a number of faculty who are teaching data related courses in BUS) has been notified of the intended new course, and have voiced their unanimous support. BUS will decide in their October meeting on whether the two courses should be two-way equivalent. The program changes reflect the option for Econ students to take Econ 233 as an alternate to BUS 232.

Econ 220W (Communication in Economics) is a required course for all declared Econ majors as of Fall 2019. Economics and Business would like to give Joint Honours students the option of choosing between Econ 220W and BUS 217W (Econ/Bus Joint Major students already have this option). The new language reflects this change. It also consolidates the BUS/Econ joint honors language, which previously had separate section for the Economics and the Business requirements. Business will make the same language change.

**Effective term and year:**

Fall 2020

The following program(s) will be affected by these changes:

ECON Major

ECON Honours

ECON-BUS Joint Major

ECON-POL Joint Major

ECON-BUS Joint Honours

ECON Extended Minor.

**Calendar Change:** “to” and “from” sections are not required. All deletions should be crossed out as follows: ~~sample~~. All additions should be marked by a **bold**.

**Economics Major**

...

Lower Division Requirements

Students complete the following with at least a C- grade in each course prior to program admission.

ECON 103 - Principles of Microeconomics (4)

ECON 105 - Principles of Macroeconomics (4)  
ECON 201 - Microeconomic Theory I: Competitive Behavior (4)  
MATH 157 - Calculus I for the Social Sciences (3)

Students must also complete **all-one** of

BUS 232 – Data and Decisions I (4)  
**ECON 233 – Introduction to Economic Data and Statistics (4)**

**and both of**

ECON 220W – Communication in Economics (4)  
one additional 200 division ECON course.

...

Early Access to Upper Division Courses

...

Students who earn an A- grade or better at Simon Fraser University on their first attempt in **ECON 233 or BUS 232** or STAT 270 may enroll ~~for in~~ in ECON 333 once they have completed 30 units. These upper division courses will count towards Department of Economics and Simon Fraser University upper division requirements. See ECON course descriptions for access information.

## **Economics Honours**

...

Lower Division Requirements

Students complete the following with at least a C- grade in each course prior to program admission.

ECON 103 - Principles of Microeconomics (4)  
ECON 105 - Principles of Macroeconomics (4)  
ECON 201 - Microeconomic Theory I: Competitive Behavior (4)  
MATH 157 - Calculus I for the Social Sciences (3)

Students must also complete **all-one** of

BUS 232 – Data and Decisions I (4)  
**ECON 233 – Introduction to Economic Data and Statistics (4)**

**and both of**

ECON 220W – Communication in Economics (4)  
one additional 200 division ECON course.

...

#### Early Access to Upper Division Courses

...

Students who earn an A- grade or better at Simon Fraser University on their first attempt in **ECON 233 or BUS 232 or STAT 270** may enroll ~~for in~~ in ECON 333 once they have completed 30 units. These upper division courses will count towards Department of Economics and Simon Fraser University upper division requirements. See ECON course descriptions for access information.

#### Business and Economics Joint Major

...

#### Lower Division Requirements

...

and one of

BUS 232 - Data and Decisions I (4)

**ECON 233 – Introduction to Economic Data and Statistics (4)**

STAT 270 - Introduction to Probability and Statistics (3)

...

#### Early Access to Upper Division Courses

...

Students who earn an A- grade or better at Simon Fraser University on their first attempt in **ECON 233 or BUS 232 or STAT 270** may enroll ~~for in~~ in ECON 333 once they have completed 30 units. These upper division courses will count towards Department of Economics and Simon Fraser University upper division requirements. See ECON course descriptions for access information.

#### Political Science and Economics Joint Major

...

#### Program Requirements

##### Lower Division Requirements Political Science

...

and one of

BUS 232 - Data and Decisions I (4)

**ECON 233 – Introduction to Economic Data and Statistics (4)**

POL 201 - Introductory Quantitative Methods in Political Science (3) \*

and six lower division units in political science.

\* recommended

#### Lower Division Requirements Economics

Prior to admission to the joint program, Students complete, with a grade of at least a C- , all of

ECON 103 - Principles of Microeconomics (4)  
ECON 105 - Principles of Macroeconomics (4)  
ECON 201 - Microeconomic Theory I: Competitive Behavior (4)  
MATH 157 - Calculus I for the Social Sciences (3)

and all of

Students also complete one of

BUS 232 – Data and Decisions I (4)  
ECON 233 – Introduction to Economic Data and Statistics (4)

and both of

ECON 220W – Communication in Economics (4)  
one additional 200 division ECON course.

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#### Economics Upper Division Requirements

...

#### Early Access to Upper Division Courses

...

Students who earn an A- grade or better at Simon Fraser University on their first attempt in ECON 233 or BUS 232 or STAT 270 may enroll in ECON 333 once they have completed 30 units. These upper division courses will count towards Department of Economics and Simon Fraser University upper division requirements. See ECON course descriptions for access information.

#### Business and Economics Joint Honours

...

Lower Division Requirements

Business Lower Division Requirements

Students complete one of  
**BUS 217W – Critical Thinking in Business (3)**  
**ECON 220W – Communication in Economics (4)**

Students complete and all of

**MATH 157 - Calculus I for the Social Sciences (3)**  
~~BUS 217W – Critical Thinking in Business (3)~~  
**BUS 237 - Introduction to Business Technology Management (3)**  
**BUS 251 - Financial Accounting I (3)**  
**BUS 254 - Managerial Accounting I (3)**  
**BUS 272 - Behavior in Organizations (3)**  
**ECON 103 - Principles of Microeconomics (4)**  
**ECON 105 - Principles of Macroeconomics (4)**  
**ECON 201 - Microeconomic Theory I: Competitive Behavior (4)**  
One additional 200 level ECON course

Students who earn a grade of A- or better at Simon Fraser University on their first attempt in ECON 201 are exempt from the requirement of one additional 200 division ECON course. These students should see Early Access to Upper Division Courses below for additional program information.

and one of

**BUS 232 - Data and Decisions I (4)**  
**ECON 233 – Introduction to Economic Data and Statistics (4)**  
**STAT 270 - Introduction to Probability and Statistics (3)**

and one of

~~MATH 150 – Calculus I with Review (4)~~  
~~MATH 151 – Calculus I (3)~~  
~~MATH 154 – Calculus I for the Biological Sciences (3)~~  
~~MATH 157 – Calculus I for the Social Sciences (3)~~

and one of\*

**ENGL 111W - Literary Classics in English (3)**  
**ENGL 112W - Literature Now (3)**  
**ENGL 113W - Literature and Performance (3)**  
**ENGL 114W - Language and Purpose (3)**  
**ENGL 115W - Literature and Culture (3)**  
**ENGL 199W - Introduction to University Writing (3)**  
**PHIL 100W - Knowledge and Reality (3)**  
**PHIL 105 - Critical Thinking (3)**  
**PHIL 120W - Moral Problems (3)**  
**WL 101W - Writing in World Literature (3)**  
**WL 103W - Early World Literatures (3)**  
**WL 104W - Modern World Literatures (3)**

It is recommended that students complete BUS 202 - Foundations for Collaborative Work Environments (3) in order to ensure they possess the foundational skills in communication and collaboration necessary for successful completion of upper division business coursework. Students wishing to register in BUS 202 should consult with an Undergraduate Academic Advisor in the Beedie School of Business.

\* Any one of these courses may be replaced by any three unspecified transfer units in English or in ENGL-Writing at the 100- or 200-level.

#### Economics-Lower-Division Requirements

Students complete the following with at least a C- grade in each course prior to program admission

ECON 103 - Principles of Microeconomics (4)

ECON 105 - Principles of Macroeconomics (4)

ECON 201 - Microeconomic Theory I: Competitive Behavior (4)

MATH 157 - Calculus I for the Social Sciences (3)  
and both of

BUEC 232 - Data and Decisions I (4)

One additional 200-level ECON course

Students who earn a grade of A- or better at Simon Fraser University on their first attempt in ECON 201 are exempt from the requirement of one additional 200 division ECON or BUEC course. These students should see Early Access to Upper Division Courses below for additional program information.

...

#### Early Access to Upper Division Courses

...

Students who earn an A- grade or better at Simon Fraser University on their first attempt in **ECON 233 or BUS 232** or STAT 270 may enroll ~~for in~~ in ECON 333 once they have completed 30 units. These upper division courses will count towards Department of Economics and Simon Fraser University upper division requirements. See ECON course descriptions for access information

#### Economics Extended Minor

...

#### Lower Division Requirements

Students complete the following with at least a C- grade in each course prior to program admission.

ECON 103 - Principles of Microeconomics (4)

ECON 105 - Principles of Macroeconomics (4)

ECON 201 - Microeconomic Theory I: Competitive Behavior (4)

MATH 157 - Calculus I for the Social Sciences (3)

and all of

**Students also complete one of**

**BUS 232 – Data and Decisions I (4)**

**ECON 233 – Introduction to Economic Data and Statistics (4)**

**and both of**

**ECON 220W – Communication in Economics (4)**

**one additional 200 division ECON course.**

**Calendar Entry Change**  
**Certificate in First Nations Language Proficiency**

Rationale for change:

Updating cohort-specific contact. Inserting additional course choice to the course elective list and updating the list to be more current. An \* is added to ensure that the subject matter is the same First Nations language.

Effective term and year: Summer 2020

The following program(s) will be affected by these changes:  
Certificate in First Nations Language Proficiency (CFNLP)

**Calendar Change:** “to” and “from” sections are not required. All deletions should be crossed out as follows: ~~sample~~. All additions should be marked by a **bold**.

This program is [...]

Advising for this certificate is provided by the First Nations Languages Program (FNLP). Students should plan their program in consultation with the FNLP Advisor ([fnlp@sfu.ca](mailto:fnlp@sfu.ca)). **Each cohort must also consult with their respective language cohort's FNLP Associate Director ([fnlp@sfu.ca](mailto:fnlp@sfu.ca)) on course electives planning.**

Program Requirements

The certificate consists of 27 units. [...]

Students complete or achieve equivalent credit for the following.

[...]

In addition, students must complete at least nine units selected from the following courses.

[...]

LING 160 – Language, Culture and Society (3) \*

**LING 282W – Writing for Linguistics (3)\***

LING 360 –Introduction to Applied Linguistics (3) \*

~~LING 430 – Aboriginal Languages of the Americas (3)~~

LING 431 - Language Structures I (3) \*

LING 432 - Language Structures II (3) \*

\* may be used if the subject matter is the same First Nations language

**Calendar Entry Change****Diploma in First Nations Language Proficiency**

Rationale for change:

Updating contact for cohort-specific electives planning.

Effective term and year:

Summer 2020

The following program(s) will be affected by these changes:

Diploma in First Nations Language Proficiency (DFNLP)

**Calendar Change:** “to” and “from” sections are not required. All deletions should be crossed out as follows: ~~sample~~. All additions should be marked by a **bold**.

First Nations Language Proficiency

DIPLOMA

DFNLP Diploma (Short)

The Diploma in First Nations Language Proficiency consists of 30 upper division units to achieve at least an intermediate oral proficiency and minimum 2.0 GPA.

DFNLP Diploma (Full)

[...]

Advising for this diploma is provided by the Department of Linguistics through the First Nations Languages Program (FNLP). Students should plan their program in consultation with the First Nations Languages Program Advisor or an Associate Director ([fnlp@sfu.ca](mailto:fnlp@sfu.ca)). **Each cohort must also consult with their respective language cohort's FNLP Associate Director ([fnlp@sfu.ca](mailto:fnlp@sfu.ca)) on course electives planning.**

[...]

**Calendar Entry Change  
French Honours Program**

Rationale for change:

The correction of a miscalculation of units for upper division requirements. For a total of 48 upper division units, 9 are required from the listed courses, plus 39 others and not 41, as currently appears in the Calendar.

Effective term and year: Summer 2020

The following program(s) will be affected by these changes:

French Honours

**Calendar Change:** “to” and “from” sections are not required. All deletions should be crossed out as follows: ~~sample~~. All additions should be marked by a **bold**.

### Upper Division Requirements

Students complete a total of 48 units, including

FREN 301W - Advanced French Composition (3)

and one of the following group A courses

FREN 331 - Accents of French (3)

FREN 332 - Social Approaches to French (3)

FREN 333 - The Magic of French Words (3)

FREN 334 - Topics in French Applied Linguistics (3)

and one of the following group B courses

FREN 340 - Survey of Quebecois Literature (3)

FREN 341 - Survey of French Literature to 1600 (3)

FREN 344 - Survey of French Literature after 1789 (3)

FREN 345 - Survey of French Literature from 1600 to 1789 (3)

and **41 39** units of FREN courses, to be chosen from among the remaining courses at the 300 and 400 division. A minimum of 24 of the remaining **41 39** units must be from 400 division French courses, including the following, which should be completed during the last terms of study.

FREN 491 - Readings in French Linguistics and/or Literary Criticism (3)

FREN 492 - Honours Essay (3)

In addition, the honours student must acquire proficiency (i.e. the equivalent of two terms) in another language in addition to English and French.

## Calendar Entry Change International Studies Minor

Rationale for change: Removing redundant and/or incorrect information missed in the previous round of curriculum submission.

Effective term and year: Summer 2020

The following program(s) will be affected by these changes: International Studies Minor

**Calendar Change:** “to” and “from” sections are not required. All deletions should be crossed out as follows: ~~sample~~. All additions should be marked by a **bold**.

### Upper Division Requirements

Students complete 16 upper division units from one of the three concentrations. At least 12 out of the 16 upper division concentration units must be completed from International Studies course offerings at SFU. Up to a maximum of 4 upper division units may be chosen from non-IS course offerings.\*

### Concentrations

~~Students complete upper and lower division requirements in each concentration. No more than two of the required upper division courses can be fulfilled with courses from any one department, except the School for International Studies. As well, the advisor may approve selected international field school or exchange courses for credit toward a concentration when the topic is appropriate. It is the student's responsibility to ensure that all prerequisites are met for upper division requirements~~

**Calendar Entry Change  
Psychology**

Rationale for change:  
Updating PSYC Programs to allocate for Field School coursework

Effective term and year: Summer 2020

The following program(s) will be affected by these changes:

PSYC Minor

PSYC Extended Minor

PSYC Major

PSYC Honours

PSYC JMA with CRIM

PSYC JMA with BUS

PSYC JMA with GSWS

BNS Major

BNS Honours

PSYC Major with ABA Concentration

PSYC Honours with ABA Concentration

**Calendar Change:** “to” and “from” sections are not required. All deletions should be crossed out as follows: ~~sample~~. All additions should be marked by a **bold**.

PSYC Minor

PSYC Extended Minor

PSYC JMA with CRIM

PSYC JMA with BUS

PSYC JMA with GSWS

PSYC Major with ABA Concentration

No more than three Research Engagement or Directed Studies units may be applied to this program. **No more than three PSYC Field School units may be applied to this program.**  
(...)

Psychology Major

PSYC Honours with ABA Concentration

No more than six Research Engagement or Directed Studies units may be applied to this program. **No more than six PSYC Field School units may be applied to this program.**  
(...)

Behavioural Neuroscience Major

No more than six Research Engagement or Directed Studies units may be applied to this program. **No more than six PSYC Field School units may be applied to this program.**

PSYC Honours

BNS Honours

No more than nine Research Engagement or Directed Studies units may be applied to this program. **No more than nine PSYC Field School units may be applied to this program.**

**Calendar Entry Change  
Psychology Majors and Joint Majors**

Rationale for change: PSYC 308 removed as a required course for PSYC programs

Effective term and year: Summer 2020

The following program(s) will be affected by these changes:  
PSYC Major  
PSYC Major with ABA Concentration  
PSYC Joint Major with CRIM  
PSYC Joint Major with GSWS  
PSYC Joint Major with BUS

**Calendar Change:** “to” and “from” sections are not required. All deletions should be crossed out as follows: ~~sample~~. All additions should be marked by a **bold**.

**PSYC Major****Upper Division Requirements**

Students complete a total of 30 upper division units with a minimum psychology cumulative grade point average (CGPA) and psychology upper division CGPA of 2.0 (calculated on Simon Fraser University PSYC courses only), and which includes

PSYC 300W - Critical Analysis of Issues in Psychology (4) \*  
~~PSYC 308 - History and Systems of Modern Psychology (3)~~  
and an additional ~~23~~ **26** upper division PSYC units.

**PSYC Major with ABA Concentration****Upper Division Requirements**

Students complete a minimum of 36 upper division PSYC units with a minimum psychology cumulative grade point average (CGPA) and psychology upper division CGPA of 2.0 (calculated on Simon Fraser University PSYC courses only), and which includes all of

PSYC 300W - Critical Analysis of Issues in Psychology (4) \*  
~~PSYC 308 - History and Systems of Modern Psychology (3)~~  
PSYC 356 - Developmental Psychopathology (3) or PSYC 359 - Developmental Disabilities (3)  
PSYC 371 - Intervention: Process and Outcome (3)

PSYC 4XX (15) - Douglas College transfer units

and ~~eight~~ **eleven** additional upper division PSYC units

-----

**PSYC Joint Major with BUS/GSWS/CRIM**

**UPPER DIVISION REQUIREMENTS**

Students complete 21 upper division units in psychology courses, including

PSYC 308 - History and Systems of Modern Psychology (3)

**Calendar Entry Change**  
**Psychology Research Engagement Course**

Rationale for change: Updating Research Engagement and Directed Studies course unit limits

Effective term and year: Summer 2020

The following program(s) will be affected by these changes:  
PSYC Extended Minor

**Calendar Change:** “to” and “from” sections are not required. All deletions should be crossed out as follows: ~~sample~~. All additions should be marked by a **bold**.

## **Psychology Extended Minor**

### Upper Division Requirements

(...)

No more than three **Research Engagement or Directed Studies** units may be ~~in~~directed studies applied to this program. At least A minimum of eight upper division PSYC units must be completed at Simon Fraser University.

### **Research Engagement Course**

#### **PSYC 393 - Research Engagement (1-3)**

Enrollment enables an individual to work with psychological research in consultation with the supervising instructor.

The minimum requirement is completion of the Tri-council ethics certificate, PSYC 201, 60 units, an upper division GPA of at least 2.5, and departmental permission. Research Engagement students complete an application form from the SFU Psychology website with the intended instructor. This course can be repeated for additional credit with the same or different instructor.

### Directed Studies Courses

#### **PSYC 493 - Directed Studies (3)**

~~PSYC 494 - Directed Studies (3)~~

~~PSYC 495 - Directed Studies (3)~~

Enrollment enables an individual or small group to work with a faculty member on a reading or research project of mutual interest.

The minimum requirement is an upper division GPA of at least 3.00, at least 60 units and department permission. Directed studies students complete an application form from the SFU Psychology website with the intended instructor.

## Calendar Entry Change Dialogue Minor

### Rationale for change:

CMNS 460 was previously a required course for the Dialogue minor, but has not regularly been offered over the past 3 years. A more flexible set of options for completing the minor has been proposed to allow the program great accessibility.

### Effective term and year:

Summer 2020

### The following program(s) will be affected by these changes:

Dialogue Minor

**Calendar Change:** “to” and “from” sections are not required. All deletions should be crossed out as follows: ~~sample~~. All additions should be marked by a **bold**.

## Dialogue Minor

This program offers a unique concentration of courses enabling students to focus on the conceptual framework, technique and practice of creating, sustaining and evaluating dialogue. The relationship of dialogue with public issues is highlighted, along with the role and effect of dialogue in various forms such as co-operation, controversy and confrontation.

~~This program, along with another minor or extended minor in a relevant department, may be completed as part of a Faculty of Arts and Social Sciences, or Faculty of Communication, Art and Technology BA degree.~~

## Admission Requirements

Admission is subject to enrollment limitations.

Applicants will have a minimum 3.00 cumulative grade point average (CGPA) ~~or transfer CGPA~~ upon completion of 50 units at Simon Fraser University and/or transfer units.

## Continuance Requirements

A minimum 2.75 CGPA is required to remain in good standing **in this program**. Those who do not maintain this requirement may be dropped from the program, but may apply for readmission at a later date.

## Program Requirements

### Upper Division Requirements

Students complete a **minimum total** of 189 upper division units, including either Path A or B (see below), and

[CMNS 460 - Seminar in Dialogue and Public Issues \(4\)](#)

#### Path A

In addition to the requirements listed above, students choosing this path must also complete all of

**All students must complete**

[DIAL 390W - Semester: Dialogue \(5\)](#)

[DIAL 391W - Semester: Seminar \(5\)](#)

[DIAL 392W - Semester: Final Project \(5\)](#)

#### Path B

In addition to the requirements listed above, students choosing this path must also complete

[CMNS 461 - Field Placement in Dialogue \(3\)](#)

and three **two** of

[CMNS 332 - Communication and Rhetoric \(4\)](#)

[CMNS 347 - Communication in Conflict and Intervention \(4\)](#)

[CMNS 425 - Applied Communication for Social Issues \(4\)](#)

[CMNS 432 - Political Communication, Public Opinion and Political Marketing \(4\)](#)

[CMNS 437 - Media Democratization: From Critique to Transformation \(4\)](#)

[CMNS 447 - Negotiation and Dialogue as Communication \(4\)](#)

[CMNS 460 - Seminar in Dialogue and Public Issues \(4\)](#)

[CMNS 461 - Field Placement in Dialogue \(3\)](#)

**DIAL 392W - Semester: Final Project (5)****Prerequisites**

Prerequisites for the above-mentioned CMNS courses may be waived in consultation with an undergraduate advisor.

**Course Credit in Other Programs**

Upper division CMNS courses completed for the Dialogue Minor may not count as part of the CMNS units for an honours, joint major, major, extended minor or minor (in communication).

**Writing, Quantitative, and Breadth Requirements**

Students admitted to Simon Fraser University beginning in the fall 2006 term must meet writing, quantitative and breadth requirements as part of any degree program they may undertake. See [Writing, Quantitative, and Breadth Requirements](#) for university-wide information.

**WQB Graduation Requirements**

A GRADE OF C OR BETTER IS REQUIRED TO EARN W, Q OR B CREDIT

Requirement	Units	Notes	
W—Writing	6	Must include at least one upper division course, taken at Simon Fraser major subject	
Q—Quantitative	6	Q courses may be lower or upper division	
B—Breadth	18	Designated Breadth	Must be outside the student's major subject, and may 6 units Social Sciences: B-Soc 6 units Humanities: B-Hum 6 units Sciences: B-Sci

		6	Additional Breadth	6 units outside the student's major subject (may or may and will likely help fulfil individual degree program req Students choosing to complete a joint major, joint honours, extended minors, an extended minor and a minor, or two breadth requirements (designated or not designated) within one or both program areas.
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**Calendar Entry Change  
Communication Major**

Rationale for change:  
CMNS 201W has replaced CMNS 201

Effective term and year: Summer 2020

The following program(s) will be affected by these changes:

Communication Major  
Communication Honours  
Anthropology and Communication Joint Major  
Sociology and Communication Joint Major

**Calendar Change:** “to” and “from” sections are not required. All deletions should be crossed out as follows: ~~sample~~. All additions should be marked by a **bold**.

**Lower Division Requirements**

Students complete both of

CMNS 110 - Introduction to Communication Studies (3)  
CMNS 130 - Communication and Social Change (3)

and at least six 200 division CMNS courses, including both of

CMNS 201W **(or 201)** - Empirical Communication Research Methods (4) \*  
CMNS 202 - Design and Method in Qualitative Communication Research (4)

## Calendar Entry Change Communication Major

Rationale for change:  
CMNS 201W has replaced CMNS 201

Effective term and year: Summer 2020

The following program(s) will be affected by these changes:

Communication and Interactive Arts and Technology Joint Major Bachelor of Arts  
Communication and Interactive Arts and Technology Joint Major Bachelor of Science

**Calendar Change:** “to” and “from” sections are not required. All deletions should be crossed out as follows: ~~sample~~. All additions should be marked by a **bold**.

### Lower Division Requirements

Communication

(...)  
and one of

CMNS 226 - Digital Media Communication Techniques (3)  
CMNS 258 - History of Sound in Media (3)  
CMNS 259 - Listening, Culture and Society (3)

and both of

CMNS 201W **(or 201)** - Empirical Communication Research Methods (4)  
CMNS 202 - Design and Method in Qualitative Communication Research (4)

## Calendar Entry Change Communication Major

Rationale for change:  
CMNS 201W has replaced CMNS 201

Effective term and year: Summer 2020

The following program(s) will be affected by these changes:

Business and Communication Joint Major  
English and Communication Joint Major

**Calendar Change:** “to” and “from” sections are not required. All deletions should be crossed out as follows: ~~sample~~. All additions should be marked by a **bold**.

### Lower Division Communication Requirements

(...)

and both of

CMNS 201W **(or 201)** - Empirical Communication Research Methods (4)  
CMNS 202 - Design and Method in Qualitative Communication Research (4)

## Calendar Entry Change Communication Extended Minor

### Rationale for change:

Communication is in the process of standardizing the formatting and information included in each of its program pages to ensure consistency and clarity in all calendar entries.

The extended minor has also updated admission and continuance requirements to align with other Communication programs. Other Communication programs require a CMNS GPA of 2.50 and CGPA of 2.00 for admission into the program and a CMNS GPA of 2.25 and CGPA of 2.00 for continuance purposes.

CMNS 201W has replaced CMNS 201.

The School of Communication no longer offers concentrations so we have removed the headings and information about the concentrations. In addition, we have grouped the required courses together.

Effective term and year: Summer 2020

The following program(s) will be affected by these changes:  
Communication Extended Minor

**Calendar Change:** “to” and “from” sections are not required. All deletions should be crossed out as follows: ~~sample~~. All additions should be marked by a **bold**.

## Communication Extended Minor

**This extended minor explores, analyzes, and critically evaluates some of the diverse dimensions of communication, including media and culture; technology and society; political economy and policy.** This program, along with another minor or extended minor in a relevant department, may be completed as part of a Faculty of Arts and Social Sciences or Faculty of Communication, Art and Technology BA degree. An extended minor consists of the lower division requirements of a major and the upper division requirements of a minor in a subject area.

## Admission Requirements

Admission is based on a grade point average of Communication courses (CMNS-GPA).

Applicants will have a minimum 2.50 Communication grade point average (CMNS GPA) or transfer grade point average (GPA) upon completion of the lower division requirements upon completion of at least 2 CMNS lower division courses at SFU, each with minimum C- grade, and a minimum 2.00 CGPA.

## Continuance Requirements

A minimum 2.25 CMNS GPA and 2.00 CGPA is required to remain in good standing in the program.

## Program Requirements

### Lower Division Requirements

Students complete the same lower division requirements as for the school's major program as follows.

Students complete both of

CMNS 110 - Introduction to Communication Studies (3)

CMNS 130 - Communication and Social Change (3)

and at least six 200 division CMNS courses, including both of

**CMNS 201W (or 201) - Empirical Communication Research Methods (4) \***

**CMNS 202 - Design and Method in Qualitative Communication Research (4)**

**CMNS 253W - Introduction to Information Technology: The New Media (3)**

The remaining four 200 division CMNS courses must include at least one course from each of the following three areas of concentration.

\* completion of this quantitative (Q) course satisfies part of the University's Q requirement.

### Media and Culture Concentration

Explores the history and contexts of media institutions, practices, texts and discourses with particular concern for the way they affect the meaning and experience of culture.

and one of

- CMNS 220 - Understanding Television (3)
- CMNS 221 - Media and Popular Cultures (3)
- CMNS 223W - Advertising as Social Communication (3)
- CMNS 235 - News Media, the Public, and Democracy (3)

### Political Economy and Policy Concentration

~~Explores the contested economic, political, and regulatory processes shaping media institutions and communication processes.~~

and one of

- CMNS 230 - The Cultural Industries in Canada: Global Context (3)
- CMNS 240 - The Political Economy of Communication (3)

### Technology and Society Concentration

~~Analyzes topics within the broader field of communication through a focus on information and communication technologies and the knowledge society from the standpoint of scholarship in science and technology studies.~~

CMNS 253W - Introduction to Information Technology: The New Media (3)

and one of

any 200-level CMNS course.

### Upper Division Requirements

Students complete four upper division CMNS courses (**minimum 16 units**) (**and the lower division prerequisites**). ~~, if any~~. At least two (2) of these courses (**minimum 8 units**) must be taken at SFU. Directed study and field placement courses may not be used to meet this requirement.

## **Residency Requirements and Transfer Credit for School of Communication**

**At least two (2) upper division CMNS courses (minimum 8 units) must be taken at SFU.**

# Writing, Quantitative, and Breadth Requirements

Students admitted to Simon Fraser University beginning in the fall 2006 term must meet writing, quantitative and breadth requirements as part of any degree program they may undertake. See [Writing, Quantitative, and Breadth Requirements](#) for university-wide information.

## WQB Graduation Requirements

~~A GRADE OF C OR BETTER IS REQUIRED TO EARN W, Q OR B CREDIT~~

Requirement	Units	Notes	
W—Writing	6	Must include at least one upper division course, taken at Simon Fraser subject	
Q—Quantitative	6	Q courses may be lower or upper division	
	18	Designated Breadth	Must be outside the student's major subject, and may include: 6 units Social Sciences: B-Soc 6 units Humanities: B-Hum 6 units Sciences: B-Sci
B—Breadth	6	Additional Breadth	6 units outside the student's major subject (may or may not likely help fulfil individual degree program requirements). Students choosing to complete a joint major, joint honours, an extended minor and a minor, or two minors may select (or not designate) with courses completed in either or both of these areas.

**Calendar Entry Change****Name of Program or Name of Faculty****Rationale for change:**

SIAT wishes to better connect our undergraduate and graduate programs to further the integration of research into undergraduate degrees, and accelerate the rate at which SFU undergraduates can complete a Master's degree. This reflects student demands for additional education after an undergraduate degree in an accelerated time format.

**Effective term and year:** Summer 2020**The following program(s) will be affected by these changes:**

Interactive Arts and Technology Second Degree (Bachelor of Science)

**Calendar Change:** "to" and "from" sections are not required. All deletions should be crossed out as follows: ~~sample~~. All additions should be marked by a **bold**.

Interactive Arts and Technology Second Degree  
BACHELOR OF SCIENCE

Upper Division Requirements

...

Concentrations

...

IAT 438 - Interactive Objects and Environments (3)

**SFU students enrolled in the Accelerated Master's degree program within the School of Interactive Arts and Technology may apply a maximum of 9 graduate course units, taken while completing the bachelor's degree, towards the upper division undergraduate electives of the bachelor's program and the requirements of the master's degree. At least 6 of the 9 graduate course units must come from IAT 803, 804, or 806. For more information go to:**

<https://www.sfu.ca/deangradstudies/future/academicprograms/AcceleratedMasters.html>

## Calendar Entry Change

## Name of Program or Name of Faculty

## Rationale for change:

SIAT wishes to better connect our undergraduate and graduate programs to further the integration of research into undergraduate degrees, and accelerate the rate at which SFU undergraduates can complete a Master's degree. This reflects student demands for additional education after an undergraduate degree in an accelerated time format.

## Effective term and year: Summer 2020

## The following program(s) will be affected by these changes:

Interactive Arts and Technology Second Degree (Bachelor of Arts)

**Calendar Change:** “to” and “from” sections are not required. All deletions should be crossed out as follows: ~~sample~~. All additions should be marked by a **bold**.

Interactive Arts and Technology Second Degree  
BACHELOR OF ARTS

Upper Division Requirements

...

Concentrations

...

IAT 438 - Interactive Objects and Environments (3)

**SFU students enrolled in the Accelerated Master's degree program within the School of Interactive Arts and Technology may apply a maximum of 9 graduate course units, taken while completing the bachelor's degree, towards the upper division undergraduate electives of the bachelor's program and the requirements of the master's degree. At least 6 of the 9 graduate course units must come from IAT 803, 804, or 806. For more information go to:**

<https://www.sfu.ca/deangradstudies/future/academicprograms/AcceleratedMasters.html>

**Calendar Entry Change****Name of Program or Name of Faculty**

Rationale for change:

**CMNS 355 is a new course and needs to be added to the Technology and Society concentration**

Effective term and year: **Summer 2020**

The following program(s) will be affected by these changes:

**Communication and Interactive Arts and Technology Joint Major Bachelor of Science**

**Communication and Interactive Arts and Technology Joint Major Bachelor of Arts**

**Calendar Change:** “to” and “from” sections are not required. All deletions should be crossed out as follows: ~~sample~~. All additions should be marked by a **bold**.

**TECHNOLOGY AND SOCIETY CONCENTRATION**

Analyzes topics within the broader field of communication through a focus on information and communication technologies and the knowledge society from the standpoint of scholarship in science and technology studies.

If students choose this concentration, then they complete two of

**CMNS 353 - Topics in Technology and Society (4)**

**CMNS 354 - Communication and Social Issues in Design (4)**

**CMNS 355 - Technologies of Gender and Sexuality (4)**

**CMNS 358 - Sound Recording: Theory and Design (4)**

**CMNS 359 - Sound Studies II: Researching with Sound (4)**

**CMNS 446 - Communication, Science and Technology (4)**

**CMNS 453 - Issues in the Information Society (4)**

**CMNS 454 - Computer Supported Cooperative Work: Critical Perspectives (4)**

**CMNS 455W - Women and New Information Technologies (4)**

## Calendar Entry Change

## Name of Program or Name of Faculty

## Rationale for change:

The Physical Geography Minor is being updated to better reflect alignment with the revised major and to better align with educational goals. Hidden pre-requisites have been removed.

## Effective term and year:

Fall 2020

The following program(s) will be affected by these changes:

**Physical Geography Minor**

**Calendar Change:** “to” and “from” sections are not required. All deletions should be crossed out as follows: ~~sample~~. All additions should be marked by a **bold**.

## Physical Geography Minor

## Lower Division Requirements

~~GEOG 100 - Our World: Introducing Human Geography (3)~~

GEOG 111 - Earth Systems (3)

and ~~one~~ **Two** of

~~GEOG 253 - Introduction to Remote Sensing (3)~~

~~GEOG 255 - Geographical Information Science I (3)~~

**GEOG 213 - Introduction to Geomorphology (3)**

**GEOG 214 - Weather and Climate (3)**

**GEOG 215 - Biogeography (3)**

## Upper Division Requirements

A minimum of 15 units is required, to be selected from the following.

GEOG 310 - Physical Geography Field Course (4)

GEOG 311 - Hydrology (4)

**GEOG 312 - Geography of Natural Hazards (4)**

GEOG 313 - River Geomorphology (4)

GEOG 314 - The Climate System (4)

GEOG 315 - World Ecosystems (4)

GEOG 316 - Global Biogeochemical and Water Cycles (4)

GEOG 317 - Soil Science (4)

GEOG 411 - Advanced Hydrology (4)  
GEOG 412W - Glacial Processes and Environments (4)  
GEOG 414 - Climate Change (4)  
GEOG 417/417W - Advanced Soil Science (4)

**Calendar Entry Change:** Physical Geography Major (Bachelor of Science)  
Faculty of Environment, Department of Geography

Rationale for change:

The physical geography BSc has been updated to reflect industry demands in coursework and now more adequately reflects three streamlined pathways towards recognized professional accreditation and certifications. It also aligns with departmental priorities around career development and reconciliation.

Effective term and year:

Fall 2020

The following program(s) will be affected by these changes:

Physical Geography Major (Bachelor of Science)

**Calendar Change:** “to” and “from” sections are not required. All deletions should be crossed out as follows: ~~sample~~. All additions should be marked by a **bold**.

# Physical Geography Major

Bachelor of Science

The department offers a bachelor of science (BSc) program in physical geography **with three course streams targeting the academic requirements needed for employment or professional accreditation in the environmental and natural resource sectors.**

~~The program can be completed through one of three streams: biogeophysical science; geoscience; and physical geography and spatial information science.~~

(1) The biogeophysical science **stream** offers students a broad range of environmental science courses in physical geography, emphasizing biogeography, soils, hydrology, geomorphology and climatology. **It targets the academic requirements needed to apply for registration as a Professional Agrologist in British Columbia, a skills-based professional accreditation required in the environmental and natural resource sectors.**

(2) The geoscience stream **offers coursework in environmental geoscience, emphasizing geomorphology, earth science, hydrology, soils and climatology.** ~~is similarly broad ranging but~~ **It targets the academic requirements needed to apply for registration as a Professional Geoscientist (environmental geoscience) in British Columbia-Canada, a skills-based professional accreditation required in the environmental and natural resource sectors.**

(3) The geosystems and GIScience stream targets the requirements necessary to apply the theory and techniques of GIScience in the environmental and natural resources sectors. The physical geography and spatial information science stream focuses on the linkages between physical geography and spatial information science. Students completing this stream may also apply to receive a Certificate in Spatial Information Systems.

Requirements for each stream are given below. Students should contact the student advisor to plan their course work.

## Program Requirements

Students complete 120 units, as specified below.

### Lower Division Requirements

#### Common Requirements

All students, regardless of the stream they choose, will complete a total of ~~25-27~~ ~~31-34~~ units, including all of

CHEM 121 - General Chemistry and Laboratory I (4)  
EASC 101 - Dynamic Earth (3)  
GEOG 100 - Our World: Introducing Human Geography (3)  
GEOG 111 - Earth Systems (3)  
**GEOG 266W – Geography in Practice (3)**

and one of

MATH 150 - Calculus I with Review (4) \*  
MATH 151 - Calculus I (3) \*  
MATH 154 - Calculus I for the Biological Sciences (3)

and one of

MATH 152 - Calculus II (3) \*  
MATH 155 - Calculus II for the Biological Sciences (3)

and one of

PHYS 101 - Physics for the Life Sciences I (3)  
PHYS 120 - Mechanics and Modern Physics (3) \*\*  
PHYS 125 - Mechanics and Special Relativity (3) \*\*  
PHYS 140 - Studio Physics - Mechanics and Modern Physics (4)

and one of

GEOG 251 - Quantitative Geography (3) \*\*  
STAT 201 - Statistics for the Life Sciences (3)  
~~STAT 205 - Introduction to Statistics (3)~~  
STAT 270 - Introduction to Probability and Statistics (3)

and one of

**ARCH 286 – Cultural Heritage Management (4)**  
**FNST 101 – Introduction to First Nations Studies (3)**  
**FNST 286 – Indigenous Peoples and British Columbia: an Introduction (3)**

\* students in the geoscience stream must take MATH 150 or 151; and 152

\*\* Students pursuing the GIScience certificate are required to take GEOG 251. students in the geoscience stream are encouraged to complete the standard (PHYS 120) or advanced (PHYS 125) PHYS course

#### **Biogeophysical Science Stream**

The Professional Agrologist syllabus requirements of BCIA (British Columbia Institute of Agrologists) may be met through this stream. Students must choose elective courses in consultation with an academic advisor because BCIA has specific groupings of elective courses in its syllabus.

In addition to the common requirements shown above, students who choose this stream will complete 20 23 units, including both of

BISC 101 - General Biology (4)  
BISC 102 - General Biology (4)  
**GEOG 221 - Economic Worlds (3)**  
**GEOG 253 - Introduction to Remote Sensing (3)**  
**GEOG 255 - Geographical Information Science I (3)**

and one of

**BISC 204 – Introduction to Ecology (3)**  
**GEOG 215 - Biogeography (3)**

and two one of

GEOG 213 - Introduction to Geomorphology (3)  
GEOG 214 - Weather and Climate (3)

GEOG 215 Biogeography (3)

and one of

GEOG 221 Economic Worlds (3)

GEOG 241 People, Place, Society (3)

GEOG 261 Encountering the City (3)

and one of

GEOG 253 Introduction to Remote Sensing (3)

GEOG 255 Geographical Information Science I (3)

### Geoscience Stream

The Professional Environmental Geoscience syllabus requirements of APEGBC (Association of Professional Engineers and Geoscientists of British Columbia) can be met through this stream and selected courses in other university departments. Students must choose elective courses in consultation with an academic advisor because APEGBC has specific groupings of elective courses in its Environmental Geoscience syllabus.

In addition to the common requirements shown above, students who choose this stream will complete 27 units, including all of

EASC 201 - Stratigraphy and Sedimentation (3)

**EASC 202 –Introduction to Mineralogy (3)**

EASC 204 - Structural Geology I (3)

EASC 210 - Evolving Earth (3)

GEOG 213 - Introduction to Geomorphology (3)

GEOG 214 - Weather and Climate (3)

and one of

**BISC 204 – Introduction to Ecology (3)**

GEOG 215 - Biogeography (3)

and one of

EASC 207 - Introduction to Applied Geophysics (3)

EASC 313 - Introduction to Soil and Rock Engineering (3)

and one of

GEOG 221 Economic Worlds (3)

GEOG 241 People, Place, Society (3)

GEOG 261 - Encountering the City (3)

and one of

GEOG 253 - Introduction to Remote Sensing (3)

GEOG 255 - Geographical Information Science I (3)

### **Physical Geography and Spatial Information Science Geosystems and GIScience Stream**

In addition to the common requirements shown above, students who choose this stream will complete ~~23~~ 19 units, including ~~all~~ **both** of

BISC 101 - General Biology (4)

BISC 102 - General Biology (4)

GEOG 253 - Introduction to Remote Sensing (3)

GEOG 255 - Geographical Information Science I (3)

and one of

**BISC 101 - General Biology (4)**

**BISC 102 - General Biology (4)**

and two of

GEOG 213 - Introduction to Geomorphology (3)

GEOG 214 - Weather and Climate (3)

GEOG 215 - Biogeography (3)

and one of

GEOG 221 - Economic Worlds (3)

GEOG 241 - People, Place, Society (3)

GEOG 261 - Encountering the City (3)

### **Upper Division Requirements**

#### **Biogeophysical Science Stream**

Students who choose this stream will complete a minimum total of ~~44~~ 36 units, including ~~all~~ **five** of the following (at least one of which must be at the 400 division)

**GEOG 311 - Hydrology (4)**

**GEOG 317 - Soil Science (4)**

~~GEOG 310 - Physical Geography Field Course (4)~~

~~GEOG 311 - Hydrology (4)~~

~~GEOG 313 River Geomorphology (4)~~  
~~GEOG 314 The Climate System (4)~~  
~~GEOG 315 World Ecosystems (4)~~  
~~GEOG 316 Global Biogeochemical and Water Cycles (4)~~  
~~GEOG 317 Soil Science (4)~~  
~~GEOG 411 Advanced Hydrology (4)~~  
~~GEOG 412W Glacial Processes and Environments (4)~~  
~~GEOG 414 Climate Change (4)~~  
~~GEOG 417W Advanced Soil Science (4)~~

and one of

**GEOG 312 – Geography of Natural Hazards (4)**  
**GEOG 322 – World Resources (4)**  
**GEOG 385 - Food and the City (4)**  
**GEOG 428 - World Forests (4)**  
**REM 321 – Ecological Economics (4)**  
**REM 445 – Environmental Risk Assessment (4)**

~~GEOG 321 Geographies of Global Capitalism (4)~~  
~~GEOG 322 World Resources (4)~~  
~~GEOG 323 Industrial Location (4)~~  
~~GEOG 324 Geography of Transportation (4)~~  
~~GEOG 325 Geographies of Consumption (4)~~  
~~GEOG 327 Geography of Tourism (4)~~  
~~GEOG 362 Geography of Urban Built Environments (4)~~  
~~GEOG 363 Urban Planning and Policy (4)~~  
~~GEOG 377 Environmental History (4)~~  
~~GEOG 381 Territory, Power, State (4)~~  
~~GEOG 382 World on the Move (4)~~  
~~GEOG 383 Regional Development and Planning (4)~~  
~~GEOG 385 Food and the City (4)~~  
~~GEOG 386 Health Geography (4)~~  
~~GEOG 387 Geography and Gender (4)~~  
~~GEOG 389W Nature and Society (4)~~  
~~GEOG 440 Property, Land, Society (4)~~

and four of the following (at least one of which must be at the 400 division)

**GEOG 310 - Physical Geography Field Course (4)**  
**GEOG 313 - River Geomorphology (4)**  
**GEOG 314 - The Climate System (4)**  
**GEOG 315 – World Ecosystems (4)**  
**GEOG 316 - Global Biogeochemical and Water Cycles (4)**  
**GEOG 411 - Advanced Hydrology (4)**

**GEOG 412W - Glacial Processes and Environments (4)**

**GEOG 414 - Climate Change (4)**

**GEOG 417/417W - Advanced Soil Science (4)**

and ~~one~~ **two** of

**GEOG 351 - Multimedia Cartography (4)**

**GEOG 352 - Spatial Analysis (4)**

**GEOG 353 - Advanced Remote Sensing (4)**

**GEOG 355 - Geographical Information Science II (4)**

**GEOG 356 - 3D Geovisualization (4)**

and a minimum of ~~16~~ **8 additional** upper division units from BISC, CHEM, CMPT, EASC, EVSC, GEOG, MACM, MASC, MATH, MBB, PHYS or STAT courses. At least ~~eight~~ **four** of these must be GEOG units.

### Geoscience Stream

Students who choose this stream must complete a minimum of ~~44~~ **40** units including all of

**GEOG 310 - Physical Geography Field Course (4)**

**GEOG 311 - Hydrology (4)**

**GEOG 312 - Geography of Natural Hazards (4)**

**GEOG 313 - River Geomorphology (4)**

**GEOG 316 - Global Biogeochemical and Water Cycles (4)**

**GEOG 317 - Soil Science (4)**

**GEOG 412W - Glacial Processes and Environments (4)**

and ~~five~~ **three** (~~20~~ **12** units) of the following, including at least ~~three~~ **one** (~~2~~ **4** units) from Physical Geography (GEOG 31x or 41x courses) **and at least one (4 units) from GIScience (GEOG 35x or 45x courses)**

**GEOG 312 - Geography of Natural Hazards (4)**

**GEOG 313 - River Geomorphology (4)**

**GEOG 314 - The Climate System (4)**

**GEOG 315 - World Ecosystems (4)**

**GEOG 351 - Multimedia Cartography (4)**

**GEOG 352 - Spatial Analysis (4)**

**GEOG 353 - Advanced Remote Sensing (4)**

**GEOG 355 - Geographical Information Science II (4)**

**GEOG 356 - 3D Geovisualization (4)**

**GEOG 411 - Advanced Hydrology (4)**

**GEOG 414 - Climate Change (4)**

**GEOG 417/417W - Advanced Soil Science (4)**

**GEOG 451 - Spatial Modeling (4)**

GEOG 453 - Theoretical and Applied Remote Sensing (4)  
GEOG 455 - Theoretical and Applied GIS (4)  
GEOG 457 - Geovisualization Interfaces (4)

**and a minimum of 4 additional upper division units from BISC, CHEM, CMPT, EASC, EVSC, GEOG, MACM, MASC, MATH, MBB, PHYS or STAT courses.**

~~and one of~~

~~GEOG 321 Geographies of Global Capitalism (4)~~  
~~GEOG 322 World Resources (4)~~  
~~GEOG 323 Industrial Location (4)~~  
~~GEOG 324 Geography of Transportation (4)~~  
~~GEOG 325 Geographies of Consumption (4)~~  
~~GEOG 327 Geography of Tourism (4)~~  
~~GEOG 362 Geography of Urban Built Environments (4)~~  
~~GEOG 363 Urban Planning and Policy (4)~~  
~~GEOG 377 Environmental History (4)~~  
~~GEOG 381 Territory, Power, State (4)~~  
~~GEOG 382 World on the Move (4)~~  
~~GEOG 383 Regional Development and Planning (4)~~  
~~GEOG 385 Food and the City (4)~~  
~~GEOG 386 Health Geography (4)~~  
~~GEOG 387 Geography and Gender (4)~~  
~~GEOG 389W Nature and Society (4)~~  
~~GEOG 440 Property, Land, Society (4)~~

#### **~~Physical Geography and Spatial Information Science Geosystems and GIScience Stream~~**

Students who choose this stream will complete a minimum total of ~~44-24~~ units, including ~~five three (12 units)~~ of the following ~~(at least one of which must be at the 400 division)~~

GEOG 310 - Physical Geography Field Course (4)  
GEOG 311 - Hydrology (4)  
GEOG 313 - River Geomorphology (4)  
GEOG 314 - The Climate System (4)  
GEOG 315 - World Ecosystems (4)  
GEOG 316 - Global Biogeochemical and Water Cycles (4)  
GEOG 317 - Soil Science (4)  
GEOG 411 - Advanced Hydrology (4)  
GEOG 412W - Glacial Processes and Environments (4)  
GEOG 414 - Climate Change (4)  
GEOG 417/417W - Advanced Soil Science (4)

and one of

~~GEOG 321 Geographies of Global Capitalism (4)~~  
~~GEOG 322 World Resources (4)~~  
~~GEOG 323 Industrial Location (4)~~  
~~GEOG 324 Geography of Transportation (4)~~  
~~GEOG 325 Geographies of Consumption (4)~~  
~~GEOG 327 Geography of Tourism (4)~~  
~~GEOG 362 Geography of Urban Built Environments (4)~~  
~~GEOG 363 Urban Planning and Policy (4)~~  
~~GEOG 377 Environmental History (4)~~  
~~GEOG 381 Territory, Power, State (4)~~  
~~GEOG 382 World on the Move (4)~~  
~~GEOG 383 Regional Development and Planning (4)~~  
~~GEOG 385 Food and the City (4)~~  
~~GEOG 386 Health Geography (4)~~  
~~GEOG 387 Geography and Gender (4)~~  
~~GEOG 389W Nature and Society (4)~~  
~~GEOG 440 Property, Land, Society (4)~~

and **five three (12 units)** of the following (at least one of which must be at the 400 division)

GEOG 351 - Multimedia Cartography (4)  
GEOG 352 - Spatial Analysis (4)  
GEOG 353 - Advanced Remote Sensing (4)  
GEOG 355 - Geographical Information Science II (4)  
GEOG 356 - 3D Geovisualization (4)  
GEOG 451 - Spatial Modeling (4)  
GEOG 453 - Theoretical and Applied Remote Sensing (4)  
GEOG 455 - Theoretical and Applied GIS (4)  
GEOG 457 - Geovisualization Interfaces (4)

**and a minimum of 20 additional upper division units from BISC, CHEM, CMPT, EASC, EVSC, GEOG, MACM, MASC, MATH, MBB, PHYS or STAT courses. At least twelve of these must be GEOG units.**

**Calendar Entry Change****Name of Program or Name of Faculty:** BSc Physical Geography Honours

Faculty of Environment

## Rationale for change:

The BSc Honours in Physical Geography is being updated to align with changes to the BSc in Physical Geography, in turn aligned with changes to professional accreditations and departmental priorities around reconciliation and career development.

## Effective term and year:

Fall 2020

The following program(s) will be affected by these changes:

BSc Physical Geography Honours

**Calendar Change:** “to” and “from” sections are not required. All deletions should be crossed out as follows: ~~sample~~. All additions should be marked by a **bold**.

# Physical Geography Honours

Bachelor of Science

The department offers a bachelor of science (BSc) honours program in physical geography with three course streams targeting the academic requirements needed for employment or professional accreditation in the environmental and natural resource sectors.

~~The program can be completed with one of three streams: biogeophysical science, physical geography and spatial information science, geoscience.~~

(1) The biogeophysical science stream offers a broad range of environmental science courses in physical geography, **emphasizing biogeography, soils, hydrology, geomorphology and climatology**. It targets the academic requirements needed to apply for registration as a **Professional Agrologist** in British Columbia, a skills-based professional accreditation required in the environmental and natural resource sectors.

(2) The physical geography and spatial information science stream focuses, with emphasis on the linkages between physical geography and spatial information science. Students completing this stream may also apply to receive a Certificate in Spatial Information Systems.

(3) The geoscience stream offers coursework in environmental geoscience, **emphasizing geomorphology, earth science, hydrology, soils and climatology**. It targets the academic

requirements **needed to apply** for registration as a professional geoscientist (environmental geoscience) in British Columbia Canada, a **skills-based professional accreditation required in the environmental and natural resource sectors**. This stream is recommended to students who are interested in focusing their academic program in the areas of geomorphology, hydrology, soils, climatology, biogeography and spatial information science.

**(3) The geosystems and GIScience stream targets the requirements necessary to apply the theory and techniques of GIScience in the environmental and natural resources sectors.**

Requirements for each stream are below. Students should contact the student advisor to plan their course work.

## Admission Requirements

Program entry requires the approval of the department and an admission grade point average (GPA) of 3.00. Entry to the BSc Physical Geography Honours program is competitive. Interested students must apply to the Department one full term prior to the term in which they plan to enroll in GEOG 491- Honours Essay. Applicants must have completed a minimum of 45 upper division units, have a minimum upper division GPA of 3.67, and have consulted with a potential Honours Essay supervisor prior to application.

For application instructions and deadlines, please consult the Department. Meeting the minimum requirements does not guarantee entry to the Honours program.

## Minimum Grade Requirements

To graduate with honours, students must have a graduation GPA of not less than 3.050.

## Program Requirements

Students complete 132 units, as specified below. A total of 120 units is required, of which 60 must be at the upper division.

### Lower Division Requirements

#### Common Requirements

All students, regardless of the stream they choose, will complete a total of 32-33 31-34 units, including all of

CHEM 121 - General Chemistry and Laboratory I (4)

CHEM 122 - General Chemistry II (2)

EASC 101 - Dynamic Earth (3)

GEOG 100 - Our World: Introducing Human Geography (3)

GEOG 111 - Earth Systems (3)

**GEOG 266W – Geography in Practice (3)**

and one of

MATH 150 - Calculus I with Review (4) \*

MATH 151 - Calculus I (3) \*

MATH 154 - Calculus I for the Biological Sciences (3)

and one of

MATH 152 - Calculus II (3) \*

MATH 155 - Calculus II for the Biological Sciences (3)

and one of

~~PHYS 101 - Physics for the Life Sciences I (3) \*\*~~

~~PHYS 120 - Mechanics and Modern Physics (3)~~

and one of

~~PHYS 102 - Physics for the Life Sciences II (3) \*\*~~

~~PHYS 121 - Optics, Electricity and Magnetism (3)~~

and one of

~~PHYS 130 - Physics for the Life Sciences Laboratory (2) \*\*~~

and one of

**GEOG 251 - Quantitative Geography (3) \*\***

STAT 201 - Statistics for the Life Sciences (3)

STAT 205 - Introduction to Statistics (3)

STAT 270 - Introduction to Probability and Statistics (3)

and one of

**PHYS 101 - Physics for the Life Sciences I (3)**

**PHYS 120 - Mechanics and Modern Physics (3)**

**PHYS 125 - Mechanics and Special Relativity (3)**

**PHYS 140 - Studio Physics - Mechanics and Modern Physics (4)**

and one of

**ARCH 286 – Cultural Heritage Management (4)**

**FNST 101 – Introduction to First Nations Studies (3)**

**FNST 286 – Indigenous Peoples and British Columbia: an Introduction (3)**

See ~~PHYS~~ courses for possible physics course substitutions.

**\* students in the geoscience stream must take MATH 150 or 151; and 152**

**\*\* students pursuing the GIScience certificate are required to take GEOG 251**

Biogeophysical Science Stream

**The Professional Agrologist syllabus requirements of BCIA (British Columbia Institute of Agrologists) may be met through this stream. Students must choose elective courses in consultation with an academic advisor because BCIA has specific groupings of elective courses in its syllabus.**

In addition to the common requirements as shown above, students who choose this stream will also complete 203 units, including both **all** of

BISC 101 - General Biology (4)

BISC 102 - General Biology (4)

and **two** of

~~GEOG 213 – Introduction to Geomorphology (3)~~

~~GEOG 214 – Weather and Climate (3)~~

~~GEOG 215 – Biogeography (3)~~

and **one** of

GEOG 221 - Economic Worlds (3)

~~GEOG 241 – People, Place, Society (3)~~

and **one** of

GEOG 253 - Introduction to Remote Sensing (3)

GEOG 255 - Geographical Information Science I (3)

and **one** of

**BISC 204 – Introduction to Ecology (3)**

**GEOG 215 – Biogeography (3)**

and one of

**GEOG 213 - Introduction to Geomorphology (3)**

**GEOG 214 - Weather and Climate (3)**

Geoscience Stream

**The Professional Environmental Geoscience syllabus requirements of EGBC (Engineers and Geoscientists of British Columbia) can be met through this stream. Students must choose elective courses in consultation with an academic advisor because EGBC has specific groupings of elective courses in its Environmental Geoscience syllabus.**

In addition to the common requirements as shown above, students who choose this stream will also complete ~~33~~27 units, including all of

~~EASC 201 - Stratigraphy and Sedimentation (3) \*\*\*~~

~~EASC 202 - Introduction to Mineralogy (3) \*\*\*~~

~~EASC 204 - Structural Geology I (3) \*\*\*~~

~~EASC 205 - Introduction to Petrology (3) \*\*\*~~

~~EASC 207 - Introduction to Applied Geophysics (3) \*\*\*~~

~~EASC 210 - Evolving Earth (3) \*\*\*~~

**GEOG 213 - Introduction to Geomorphology (3)**

**GEOG 214 - Weather and Climate (3)**

and one of

**BISC 204 - Introduction to Ecology (3)**

~~GEOG 215 - Biogeography (3)~~

~~GEOG 221 - Economic Worlds (3)~~

and one of

**EASC 205 - Introduction to Petrology (3)**

**EASC 207 - Introduction to Applied Geophysics (3)**

and one of

~~GEOG 253 - Introduction to Remote Sensing (3)~~

~~GEOG 255 - Geographical Information Science I (3)~~

~~Physical Geography and Spatial Information Science Geosystems and GIScience Stream~~

In addition to the common requirements as shown above, students who choose this stream will also complete ~~23~~19 units, including all of

~~BISC 101 - General Biology (4)~~  
~~BISC 102 - General Biology (4)~~  
GEOG 253 - Introduction to Remote Sensing (3)  
GEOG 255 - Geographical Information Science I (3)

and one of

**BISC 101 - General Biology (4)**  
**BISC 102 - General Biology (4)**

and two of

GEOG 213 - Introduction to Geomorphology (3)  
GEOG 214 - Weather and Climate (3)  
GEOG 215 - Biogeography (3)

and one of

GEOG 221 - Economic Worlds (3)  
GEOG 241 - People, Place, Society (3)  
**GEOG 261 - Encountering the City (3)**

~~\* students in the Geoscience stream must take Math 152~~

~~\*\* a minimum grade may be required for this course to serve as a prerequisite to certain Faculty of Science courses; students in the Geoscience stream must have a grade of B or better~~

~~\*\*\* with a C grade or better in prerequisite courses~~

### Upper Division Requirements

The program requires a minimum of 60 units of upper division courses, of which 48 must be in geography or other closely related Faculty of Science subjects that have been approved by the Department of Geography. Students are strongly encouraged to seek Department of Geography advice in advance about suitability of the courses they are considering. GEOG 491 may be included in these 48 units.

The remaining 12 upper division units must be from physical geography (GEOG 31x or 41x courses), BISC, CHEM, CMPT, EASC, EVSC, MACM, MASC, MATH, MBB, PHYS, or STAT.

## Biogeophysical Science Stream

Students who choose this stream will complete a minimum total of ~~44~~ **40** units, including ~~three~~ **all** of

~~GEOG 310~~ Physical Geography Field Course (4)  
~~GEOG 311~~ - Hydrology (4)  
~~GEOG 313~~ River Geomorphology (4)  
~~GEOG 314~~ The Climate System (4)  
~~GEOG 315~~ World Ecosystems (4)  
~~GEOG 316~~ Global Biogeochemical and Water Cycles (4)  
~~GEOG 317~~ - Soil Science (4)

and one of

~~GEOG 321~~ Geographies of Global Capitalism (4)  
**GEOG 312** – Geography of Natural Hazards (4)  
~~GEOG 322~~ - World Resources (4)  
~~GEOG 323~~ Industrial Location (4)  
~~GEOG 324~~ Geography of Transportation (4)  
~~GEOG 325~~ Geographies of Consumption (4)  
~~GEOG 327~~ Geography of Tourism (4)  
~~GEOG 362~~ Geography of Urban Built Environments (4)  
~~GEOG 363~~ Urban Planning and Policy (4)  
~~GEOG 381~~ Territory, Power, State (4)  
~~GEOG 382~~ World on the Move (4)  
~~GEOG 383~~ Regional Development and Planning (4)  
~~GEOG 385~~ - Food and the City (4)  
**GEOG 428** – World Forests (4)  
**REM 321** – Ecological Economics (4)  
**REM 445** – Environmental Risk Assessment (4)  
~~GEOG 386~~ Health Geography (4)  
~~GEOG 387~~ Geography and Gender (4)  
~~GEOG 389W~~ Nature and Society (4)

and ~~four~~ of the following (at least one of which must be at the 400 division)

**GEOG 310** - Physical Geography Field Course (4)  
~~GEOG 313~~ - River Geomorphology (4)  
~~GEOG 314~~ - The Climate System (4)  
~~GEOG 315~~ - World Ecosystems (4)  
~~GEOG 316~~ - Global Biogeochemical and Water Cycles (4)  
~~GEOG 411~~ - Advanced Hydrology (4)  
~~GEOG 412W~~ - Glacial Processes and Environments (4)  
~~GEOG 414~~ - Climate Change (4)

**GEOG 417/417W - Advanced Soil Science (4)**

and ~~one~~ two of

GEOG 351 - Multimedia Cartography (4)  
GEOG 352 - Spatial Analysis (4)  
GEOG 353 - Advanced Remote Sensing (4)  
GEOG 355 - Geographical Information Science II (4)  
~~GEOG 356 - 3D Geovisualization (4)~~

and ~~two~~ of

~~GEOG 411 - Advanced Hydrology (4)~~  
~~GEOG 412W - Glacial Processes and Environments (4)~~  
~~GEOG 414 - Climate Change (4)~~  
~~GEOG 417W - Advanced Soil Science (4)~~

and

**GEOG 491 - Honours Essay (4)**

and a minimum of ~~16~~20 upper division units from BISC, CHEM, CMPT, EASC, EVSC, GEOG, MACM, MASC, MATH, MBB, PHYS or STAT courses. At least ~~eight~~ twelve of these must be GEOG courses.

Geoscience Stream

Students must complete a minimum of ~~49~~51 ~~44~~ units, including all of

~~EASC 304 - Hydrogeology (3) \*\*\*~~  
GEOG 310 - Physical Geography Field Course (4)  
GEOG 311 - Hydrology (4)  
**GEOG 312 - Geography of Natural Hazards (4)**  
GEOG 313 - River Geomorphology (4)  
**GEOG 316 - Global Biogeochemical and Water Cycles (4)**  
GEOG 317 - Soil Science (4)  
GEOG 412W - Glacial Processes and Environments (4)

and ~~one~~ of

~~GEOG 322 - World Resources (4)~~  
~~GEOG 323 - Industrial Location (4)~~  
~~GEOG 325 - Geographies of Consumption (4)~~  
~~GEOG 327 - Geography of Tourism (4)~~  
~~GEOG 382 - World on the Move (4)~~

~~GEOG 385 Food and the City (4)~~  
~~GEOG 389W Nature and Society (4)~~

and one three (12 units) of the following, including at least one (4 units) from Physical Geography (GEOG 31x or 41x courses) and including at least one (4 units) from GIScience (GEOG 35x or 45x courses)

**GEOG 314 - The Climate System (4)**  
**GEOG 351 - Multimedia Cartography (4)**  
GEOG 352 - Spatial Analysis (4)  
GEOG 353 - Advanced Remote Sensing (4)  
**GEOG 356 - 3D Geovisualization (4)**

and five (18-20 units) of the following. This five will include no more than eight units from ~~GEOG 314, 315, 316, 414 and 417, and no more than six units from EASC 303, 307 and 313.~~

~~EASC 307 Applied Geophysics (3) \*\*\*~~  
~~EASC 313 Introduction to Soil and Rock Engineering (3) \*\*\*~~  
**GEOG 312 - Geography of Natural Hazards (4)**  
**GEOG 314 - The Climate System (4)**  
**GEOG 315 - World Ecosystems (4)**  
**GEOG 316 - Global Biogeochemical and Water Cycles (4)**  
GEOG 411 - Advanced Hydrology (4)  
GEOG 414 - Climate Change (4)  
GEOG 417/417W - Advanced Soil Science (4)  
**GEOG 451 - Spatial Modeling (4)**  
**GEOG 453 - Theoretical and Applied Remote Sensing (4)**  
**GEOG 455 - Theoretical and Applied GIS (4)**  
**GEOG 457 - Geovisualization Interfaces (4)**

and

**GEOG 491 - Honours Essay (4)**

and a minimum of 16 upper division units from BISC, CHEM, CMPT, EASC, EVSC, GEOG, MACM, MASC, MATH, MBB, PHYS or STAT courses. At least eight of these must be GEOG courses.

~~Physical Geography and Spatial Information Science Geosystems and GIScience Stream~~

Students who choose this stream will complete a minimum total of ~~44~~-28 units, including three (12 units) of the following (at least one of which must be at the 400 division)

**GEOG 310 - Physical Geography Field Course (4)**

GEOG 311 - Hydrology (4)  
GEOG 313 - River Geomorphology (4)  
GEOG 314 - The Climate System (4)  
GEOG 315 - World Ecosystems (4)  
GEOG 316 - Global Biogeochemical and Water Cycles (4)  
GEOG 317 - Soil Science (4)  
**GEOG 411 - Advanced Hydrology (4)**  
**GEOG 412W - Glacial Processes and Environments (4)**  
**GEOG 414 - Climate Change (4)**  
**GEOG 417W - Advanced Soil Science (4)**

and one of

~~GEOG 321 Geographies of Global Capitalism (4)~~  
~~GEOG 322 World Resources (4)~~  
~~GEOG 323 Industrial Location (4)~~  
~~GEOG 324 Geography of Transportation (4)~~  
~~GEOG 325 Geographies of Consumption (4)~~  
~~GEOG 327 Geography of Tourism (4)~~  
~~GEOG 362 Geography of Urban Built Environments (4)~~  
~~GEOG 363 Urban Planning and Policy (4)~~  
~~GEOG 381 Territory, Power, State (4)~~  
~~GEOG 382 World on the Move (4)~~  
~~GEOG 383 Regional Development and Planning (4)~~  
~~GEOG 385 Food and the City (4)~~  
~~GEOG 386 Health Geography (4)~~  
~~GEOG 387 Geography and Gender (4)~~  
~~GEOG 389W Nature and Society (4)~~

and three **(12 units)** of

GEOG 351 - Multimedia Cartography (4)  
GEOG 352 - Spatial Analysis (4)  
GEOG 353 - Advanced Remote Sensing (4)  
GEOG 355 - Geographical Information Science II (4)  
GEOG 356 - 3D Geovisualization (4)  
**GEOG 451 - Spatial Modeling (4)**  
**GEOG 453 - Theoretical and Applied Remote Sensing (4)**  
**GEOG 455 - Theoretical and Applied GIS (4)**  
**GEOG 457 - Geovisualization Interfaces (4)**

and

**GEOG 491 - Honours Essay (4)**

and a minimum of 32 additional upper division units from BISC, CHEM, CMPT, EASC, EVSC, GEOG, MACM, MASC, MATH, MBB, PHYS or STAT courses. At least twenty of these must be GEOG units.

and two of

GEOG 411 Advanced Hydrology (4)  
GEOG 412W Glacial Processes and Environments (4)  
GEOG 414 Climate Change (4)  
GEOG 417W Advanced Soil Science (4)

and two of

GEOG 451 Spatial Modeling (4)  
GEOG 453 Theoretical and Applied Remote Sensing (4)  
GEOG 455 Theoretical and Applied GIS (4)  
GEOG 457 Geovisualization Interfaces (4)

~~\*\*\* with a C- grade or better in prerequisite courses~~