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MEMORANDUM

ATTENTION Senate
FROM Wade Parkhouse, Chair
Senate Committee on
Undergraduate Studies
RE: Program Changes

DATE March 5, 2021
PAGES 1/5

For information:

Acting under delegated authority at its meeting of March 4, 2021, SCUS approved the following curriculum revisions effective Fall 2021.

a. Faculty of Applied Sciences (SCUS 21-30)

1. School of Computing Science

- (i) Description, admission, continuation, upper and lower division requirement changes to the Computing Science Dual Degree Program Major

b. Faculty of Arts and Social Sciences (SCUS 21-31)

1. Degree requirement changes to all Bachelor of Arts (BA) programs

2. Degree requirement changes to all Bachelor of Arts (BA) honours programs

3. Cognitive Science Program

- (i) Lower division requirement changes for the:

- Cognitive Science Major
- Cognitive Science Honours
- Cognitive Science Minor

4. School of Criminology

- (i) Lower division requirement changes to the Post Baccalaureate Diploma in Legal Studies

5. Department of Economics

(i) Lower division requirement changes to the:

- Economics Major
- Economics Extended Minor
- Economics Honours

6. Department of English

(i) Description, upper and lower division requirement changes to the English Honours

7. Global Asia Program

(i) Upper division requirement changes to the Global Asia Minor

8. Department of Humanities

(i) Upper and Lower division requirement changes to the:

- Humanities Major
- Humanities Joint Major
 - English and Humanities Joint Major
 - French and Humanities Joint Major
 - History and Humanities Joint Major
 - Humanities and Gender, Sexuality, and Women's Studies Joint Major
 - Philosophy and Humanities Joint Major
- Humanities Minor
- Humanities Extended Minor

(ii) Program requirement changes to the:

- Certificate in Medieval and Renaissance Studies
- Certificate in Religious Studies
- Certificate in Hellenic Studies

9. School for International Studies

(i) Upper division requirement changes to the:

- International Studies Major
- International Studies Minor
- International Studies Honours
- World Literature and International Studies Joint Major

(ii) Requirement changes to the Certificate in International Studies

10. Labour Studies Program

(i) Upper division requirement changes to the Labour Studies Major

(ii) Requirement changes to the Labour Studies Certificate in Workplace Rights

11. Department of Linguistics

- (i) Requirement changes to the Certificate in Linguistics of Speech Science

12. Department of Philosophy

- (i) Upper division Philosophy requirement changes to the Philosophy and Health Sciences Joint Major
- (ii) Upper division requirement changes to the Philosophy Double Minor

13. Department of Political Science

- (i) Program declaration and lower division requirement changes to the:
 - Political Science Major
 - Political Science Minor
 - Political Science Extended Minor
- (ii) Lower division requirement changes to the Political Science:
 - Political Science Honours
 - Political Science and Economics Joint Major
 - Political Science and Gender, Sexuality, and Women's Studies Joint Major
- (iii) Requirement changes to the Social Data Analytics Minor

14. Department of Psychology

- (i) Requirement changes to the:
 - Behaviour Neuroscience Honours
 - Behavioural Neuroscience Major
 - Psychology Honours
 - Psychology Major
 - Psychology Honours with ABA Concentration
 - Psychology Major with ABA Concentration
 - Psychology Extended Minor
 - Business and Psychology Joint Major
 - Gender, Sexuality, and Women's Studies and Psychology Joint Major
 - Criminology and Psychology Joint Major

15. Department of Sociology and Anthropology

- (i) Upper division requirement changes to the Anthropology and Archaeology Joint Major

16. Department of World Languages and Literatures

- (i) Requirement changes to the Certificate in German Studies

(ii) Changes to description, admission, language, program, upper and lower division, relevant topic courses and the Study Abroad requirements for the World Literature Honours

(ii) Upper division requirement changes to the:

- World Literature and History Joint Major
- World Literature and International Studies Joint Major
- World Literature Major
- World Literature Minor
- World Literature Extended Minor

c. Beedie School of Business (SCUS 21-32)

(i) Upper division requirement changes to the Certificate in Business Analytics and Decision Making

(ii) Requirement changes to the Certificate in Innovation and Entrepreneurship

d. Faculty of Communication, Art and Technology (SCUS 21-33)

1. School of Communication

(i) Upper division requirement changes to the Dialogue Minor

(ii) Changes to the Residency Requirements and Transfer Credit for the Communication Second Degree

2. Publishing Program

(i) Requirement changes to the Certificate in Creative Technologies in Digital Journalism

e. Faculty of Science (SCUS 21-34)

1. Department of Biomedical Physiology and Kinesiology

(i) Upper division requirement changes to the Kinesiology Major and Honours programs

(ii) Upper and lower division requirement changes to the Kinesiology Minor program

2. Department of Mathematics

(i) Upper and lower division requirement changes to the Applied Mathematics Major and Honours program

(ii) Upper and lower division requirement changes to the Mathematics Major and Honours program

3. Department of Physics

- (i) Upper and lower division requirement changes to the Physics Major and Honours
- (ii) Program requirement changes to the Nuclear Science Minor
- (iii) Upper division requirement changes to the:
 - Mathematical Physics Honours
 - Chemical Physics Honours
 - Biological Physics Major
 - Biological Physics Honours
 - Applied Physics Major
 - Applied Physics Honours

4. Department of Statistics and Actuarial Sciences

- (i) Lower division requirement changes to the Data Science Honours - Mathematics, Open and Statistics Concentrations
- (ii) Lower division requirement changes to the Data Science major program

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****Computing Science Dual Degree Program Major****Rationale for change:**

The Computing Science Dual Degree Program Major currently has two options: a 5-year option for students first admitted to Simon Fraser University and a 4-year option for students first admitted to Zhejiang University. Both options lead to a B.Sc. in Computing Science awarded by Simon Fraser University and a B.Eng awarded by Zhejiang University. While the program has been very successful for Zhejiang University students following the 4 year plan, there have been a number of challenges for SFU students under their five year option. The challenges relate to the limited preparation (8 months) before heading to Zhejiang University as well as students' maturity for dealing with cross-cultural learning.

The proposed revision replaces the 5-year option for students first admitted by SFU with a new dual degree option leading to a B.Sc. in Computing Science awarded by SFU and a Master of Finance in Financial Technology awarded by Zhejiang University. In the new option, SFU students spend 3.5 years at SFU, completing most of the requirements of the SFU B.Sc. (102 units minimum). They then proceed to Zhejiang University for 1.5 years to complete the Master's program in Financial Technology at the Zhejiang University International Business School. Note that the credential awarded by SFU does not change.

This option may be much more attractive than the current dual BSc/BEng model for SFU students for several reasons. First, rather than two bachelor's level credentials in computing science, the students earn the computing degree from SFU and supplement that with a master's degree in financial technology (fintech) from ZJU. This combination ought to be attractive and can be contrasted with the Computing and Financial Management program at the University of Waterloo.

Second, the language of instruction at ZIBS is primarily English, which should lead to better learning outcomes for SFU students than courses taught in Chinese (as in many of the courses of the current BSc/BEng program). Third, the ZIBS iMF program includes an industrial internship with a leading financial technology company, adding a valuable cross-cultural work-integrated learning experience to the program. Finally, in this model, students spend more time at SFU before travelling to China. This allows more opportunity to recruit from within SFU itself as well as ensuring that students have stronger preparation and a greater level of maturity before they engage in the extended study abroad experience.

In implementation of the 3.5+1.5 model, students are awarded up to 18 units of transfer credit for work completed at ZIBS. These units may be counted towards the 120 units total for the degree as well as the 45 upper division units required. Some of these credits are also assigned as breadth credits to fulfill SFU WQB requirements. In addition, students receive approximately 15 credits towards the Master of Finance course work based on their SFU work.

Effective term and year:
Fall 2021

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

Computing Science Dual Degree Program 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**.

Computing Science Dual Degree Program Major

Bachelor of Science

The school offers a dual degree program (DDP) with Zhejiang University (ZJU) in China that leads to the awarding of two ~~bachelor's~~ degrees – a bachelor of science from Simon Fraser University (SFU) and, **depending on program option**, a bachelor of engineering **or master of finance** from Zhejiang University.

Admission Requirements

B.Sc./B.Eng Option

Students are admitted to the B.Sc./B.Eng. option upon recommendation of the Zhejiang University College of Computer Science and Technology.

B.Sc./Master of Finance Option

Students may be admitted directly upon entry to Simon Fraser University (secondary school applicants) or indirectly by transfer from another SFU program. Admission is competitive and enrolment is limited. Decisions will be made on the basis of a student's admission average in combination with the required supplemental information. Admission for secondary school applicants is a two-step process; Applicants must meet the competitive admission average calculated on specific secondary school coursework (<http://www.sfu.ca/students/admission-requirements.html>) and they must also submit the following materials through the DDP website (<https://courses.cs.sfu.ca/forms/cmpt-ddp/>): (a) a completed Statement of Interest Form (b) a resume outlining school achievements, extracurricular activities, and employment history if any, and (c) names, titles and email addresses of two referees. At least one of the referees must be from a teacher/counselor/principal who can comment on academic potential and maturity for the Dual Degree Program.

The program begins each fall term, but students may be admitted in any term.

Internal transfer applicants should seek the advice of an Applied Sciences advisor for academic and language-placement assessment.

Continuation Requirements

Students who do not maintain at least a 2.40 cumulative grade point average (CGPA), will be placed on probation. Courses available to probationary students may be limited. Each term, these students must consult an advisor prior to enrolment and must achieve either a term 2.40 term GPA or an improved CGPA. Reinstatement from probationary standing occurs when the CGPA improves to 2.40 or better and is maintained.

Students must obtain permission from the department if they wish to complete, for further unit, any course that is a prerequisite for a course the student has already completed with a grade of C- or higher.

Students in the B.Sc/Master of Finance option must maintain at least a 3.0 CGPA.

Prerequisite Grade Requirement

Computing science course entry requires a grade of C- or better in each prerequisite course. A minimum 2.40 cumulative grade point average is required for upper division computing courses.

Program Overview

~~Simon Fraser University Students~~

~~Students admitted first to Simon Fraser University complete a five-year curriculum typically starting with 30 units of foundational and Mandarin courses at SFU. Students then spend two years at Zhejiang University typically completing 45-60 units including all lower division requirements. Upon returning to SFU, students typically complete their degree programs with 30-45 units of upper division computing science courses.~~

~~Zhejiang University Students~~

~~B.Sc/B.Eng. Option~~

~~Students admitted first to Zhejiang University complete a four-year curriculum starting with two years including all lower division courses required by the Dual Degree Program curriculum at Zhejiang University (typically 60-66 units). Zhejiang students then travel to Simon Fraser University to complete the remaining two years of course work (typically 54-60 units) including 39-45 units of upper division computing science courses.~~

B.Sc/M.Finance Option

Students complete a five year curriculum starting with 3.5 years of a computing science major or honors program completing at least 102 units at SFU. Students then spend 1.5 years at Zhejiang University completing the remaining requirements of the SFU B.Sc within the first year and the requirements of the ZJU Master of Finance thereafter.

Program Requirements

Lower Division Requirements

~~Simon Fraser University Students~~

B.Sc./B.Eng. Option

After successful completion of the two-year Dual Degree program curriculum at Zhejiang University, students receive 60 units of block DDP credit on the SFU transcript plus up to 6 additional units of assigned upper division CMPT credit. The block DDP credit includes 6 units of B-Hum credit, 6 units of B-Soc credit, 6 units of B-Sci credit, 6 units of B-undesignated and 6 units of Q credit. Zhejiang students must complete 6 units of W credit at Simon Fraser University.

B.Sc./M.Finance Option

~~Students starting at Simon Fraser University complete 15 units of foundational courses plus customized Mandarin courses prior to attending Zhejiang University. Course substitutions may be approved in consultation with an advisor.~~

~~Foundational Courses~~

~~CMPT 120 – Introduction to Computing Science and Programming I (3)~~

~~MATH 151 – Calculus I (3)~~

~~MATH 152 – Calculus II (3)~~

~~MATH 240 – Algebra I: Linear Algebra (3)~~

Students complete all of

CMPT 105W - Social Issues and Communication Strategies in Computing Science (3)

CMPT 120 - Introduction to Computing Science and Programming I (3)

CMPT 125 - Introduction to Computing Science and Programming II (3)

CMPT 225 - Data Structures and Programming (3)

CMPT 276 - Introduction to Software Engineering (3)

CMPT 295 - Introduction to Computer Systems (3)

MACM 101 - Discrete Mathematics I (3)

MACM 201 - Discrete Mathematics II (3)

MATH 151 - Calculus I (3)

MATH 152 - Calculus II (3)

MATH 232 - Applied Linear Algebra (3)

BUS 232 - Data and Decisions I (4)

ECON 105 - Principles of Macroeconomics (4)

and one of

GA 200 - Introduction to Chinese Civilization (3)

HIST 255 - China Since 1800 (3)

Course substitutions consistent with those of the Computing Science Major program are acceptable.

Mandarin Courses

Students with no previous knowledge of Chinese languages complete the following courses.

CHIN 180 - Intensive Mandarin Chinese for Beginners I (3)

CHIN 181 - Intensive Mandarin Chinese for Beginners II (3)

CHIN 280 - Intensive Mandarin Chinese for Beginners III (3)

CHIN 281 - Intensive Mandarin Chinese for Beginners IV (3)

Students with some previous knowledge of Chinese languages are assessed for placement by the DDP Chinese Language Instructor. Students may be required to take one or more of the following courses.

CHIN 190 - Heritage Mandarin Chinese I (3)

CHIN 191 - Heritage Mandarin Chinese II (3)

CHIN 290 - Heritage Mandarin Chinese III (3)

CHIN 291 - Heritage Mandarin Chinese IV (3)

CHIN 390 - Advanced Chinese Reading (3)

Other Chinese language related courses may be counted toward the language requirements subject to approval by the DDP Chinese Language Instructor.

~~Upon completion of Mandarin courses at Simon Fraser University, students are further assessed by the DDP Chinese Language instructor. Some students may be exempted from further Mandarin studies by taking and passing the HSK level 5 Exam with a score of 180 or higher. All other students must take the Zhejiang non-credit Mandarin summer immersion program prior to~~

commencing academic study at Zhejiang University.

Zhejiang University Course Plans

Students complete lower division requirements following one of the two-year Dual Degree course plans set by Zhejiang University. These plans may include additional Mandarin instruction dependent on language assessment. All plans meet the minimum unit residency requirements of Zhejiang University including the core computing science course work. However, some electives used to satisfy Zhejiang University requirements may not be allowed for SFU credit. The SFU DDP program advisor will have lists of Zhejiang elective courses that are pre-approved for SFU credit.

Block DDP credit will appear on the SFU transcript for course work completed at Zhejiang University. Students receive 40 units of block DDP credit for the core courses including 3 units of B-Sci credit, 6 units of Q credit and 3 units of B-Soc credit. All course plans include at least 6 required units of additional block credit including 3 units of B-Hum and 3 units of B-Soc credit.

Students required to take the additional Chinese language and culture courses receive up to 9 units of further block credit including 3 units of B-Hum and 3 units of B-Soc credit. Block credit may be assigned for additional pre-approved electives, while electives not on the approved list may be individually assessed.

Courses completed at Zhejiang University are not transfer units. They are marked as DDP units on the Simon Fraser University transcript.

Zhejiang University Students

After successful completion of the two-year Dual Degree program curriculum at Zhejiang University, Zhejiang University students receive 60 units of block DDP credit on the SFU transcript plus up to 6 additional units of assigned upper division CMPT credit. The block DDP credit includes 6 units of B-Hum credit, 6 units of B-Soc credit, 6 units of B-Sci credit, 6 units of B-undesignated and 6 units of Q credit. Zhejiang students must complete 6 units of W credit at Simon Fraser University.

Upper Division Requirements

B.Sc./B.Eng. All SFU and ZJU students complete the following upper division courses or equivalent. Students should consult an advisor before commencing upper division requirements. Course substitutions may be approved in consultation with an advisor.

Breadth Requirement

Seven courses from five of the six Table 1 areas of concentration must be completed including CMPT 300 - Operating Systems I (3)

CMPT 307 - Data Structures and Algorithms (3)

CMPT 371 - Data Communications and Networking (3)

CMPT 354 - Database Systems I (3)

Depth Requirement

Twelve units of additional CMPT courses numbered CMPT 400 or above must be completed (excluding CMPT 415, 416, and 498, which may be included by special permission).

Additional Requirements

CMPT 376W - Technical Writing and Group Dynamics (3)

MACM 316 - Numerical Analysis I (3)

CMPT 497 - Dual Degree Program Capstone Project (6) *

* CMPT 497 can be replaced by two approved CMPT 400 level courses (6 units)

Table I – Computing Science Concentrations

Artificial Intelligence

CMPT 310 - Artificial Intelligence Survey (3)

CMPT 340 - Biomedical Computing (3)

CMPT 411 - Knowledge Representation (3)

CMPT 412 - Computational Vision (3)

CMPT 413 - Computational Linguistics (3)

CMPT 414 - Model-Based Computer Vision (3)

CMPT 417 - Intelligent Systems (3)

CMPT 419 - Special Topics in Artificial Intelligence (3)

Computer Graphics and Multimedia

CMPT 361 - Introduction to Computer Graphics (3)

CMPT 363 - User Interface Design (3)

CMPT 365 - Multimedia Systems (3)

CMPT 461 - Computational Photography and Image Manipulation (3)

CMPT 464 - Geometric Modelling in Computer Graphics (3)

CMPT 466 - Animation (3)

CMPT 469 - Special Topics in Computer Graphics (3)

Computing Systems

- CMPT 300 - Operating Systems I (3)
- CMPT 305 - Computer Simulation and Modelling (3)
- CMPT 371 - Data Communications and Networking (3)
- CMPT 379 - Principles of Compiler Design (3)
- CMPT 431 - Distributed Systems (3)
- CMPT 433 - Embedded Systems (3)
- CMPT 471 - Networking II (3)
- CMPT 479 - Special Topics in Computing Systems (3)
- CMPT 499 - Special Topics in Computer Hardware (3)

Information Systems

- CMPT 354 - Database Systems I (3)
- CMPT 441 - Computational Biology (3)
- CMPT 454 - Database Systems II (3)
- CMPT 456 - Information Retrieval and Web Search (3)
- CMPT 459 - Special Topics in Database Systems (3)
- CMPT 470 - Web-based Information Systems (3)
- CMPT 474 - Web Systems Architecture (3)

Programming Languages and Software

- CMPT 373 - Software Development Methods (3)
- CMPT 383 - Comparative Programming Languages (3)
- CMPT 384 - Symbolic Computing (3)
- CMPT 473 - Software Testing, Reliability and Security (3)
- CMPT 475 - Requirements Engineering (3)
- CMPT 477 - Introduction to Formal Verification (3)
- CMPT 489 - Special Topics in Programming Language (3)

Theoretical Computing Science

- CMPT 307 - Data Structures and Algorithms (3)
- CMPT 308 - Computability and Complexity (3)

CMPT 404 - Cryptography and Cryptographic Protocols (3)

CMPT 405 - Design and Analysis of Computing Algorithms (3)

CMPT 407 - Computational Complexity (3)

CMPT 409 - Special Topics in Theoretical Computing Science (3)

MACM 300 - Introduction to Formal Languages and Automata with Applications (3)

Minimum Unit and Residency Requirement

Students must complete a minimum of 120 SFU equivalent units overall including at least 45 upper division units. Students must complete at least 54 ZJU units at Zhejiang University including at least 34 computing science core course units. Students must also complete at least 54 units at Simon Fraser University including at least 30 upper division computing science course units.

B.Sc/M.Finance Students

By default, the SFU credential awarded by completion of the requirements outlined below is Bachelor of Science with Major in Computing Science. However, students may choose instead to apply the ZIBS credit towards any other major, joint major, honors or joint honors program offered by the School of Computing Science, provided that the requirements of the chosen program are fully met.

Breadth Requirement

Students complete all of

CMPT 300 - Operating Systems I (3)

CMPT 307 - Data Structures and Algorithms (3)

CMPT 310 - Artificial Intelligence Survey (3)

CMPT 354 - Database Systems I (3)

CMPT 371 - Data Communications and Networking (3)

CMPT 376W - Technical Writing and Group Dynamics (3)

Depth Requirement

Students complete 24 additional upper division CMPT units, including at least 9 units at the CMPT 400 level or above.

The following ZIBS courses may be counted for 2 units of CMPT 4XX credit each, up to a maximum of 6 units.

Blockchain and Digital Currency (2)

Distributed Ledger Technology (2)

Cloud Computing and Biometrics (2)

Quantitative Trading and Algorithmic Trading (2)

Study at ZIBS

Students apply by May 30 to begin studies at Zhejiang University in either the following Fall term (September start) or Spring term (February start - accelerated program).

Students must complete at least 102 units of SFU degree requirements with a cumulative grade point average of at least 3.0 prior to beginning study at Zhejiang University.

Students starting in September complete the ZIBS program in 2 years, students starting in February complete the ZIBS program in 1.5 years.

SFU students will be given advanced credit toward ZIBS requirements based on specific SFU coursework completed. Each year, an updated list of recognized SFU courses that may be counted towards ZIBS requirements will be available from the program advisor.

Credit for ZIBS Course Work

Students will be awarded 18 units of upper division block transfer credit for completion of the first 18 credit hours of course work at ZIBS. This block credit may be counted towards 3 units of B-Soc breadth requirements as well as 6 units of undesignated breadth requirements. Depending on the specific ZIBS courses taken, up to 6 units may be counted towards CMPT 4xx requirements as noted above.

Students must complete this ZIBS coursework and all other SFU degree requirements for the BSc within one year of beginning studies at Zhejiang University. Completion of the SFU Bachelor degree is required before application for the Master of Finance degree from Zhejiang University.



PROGRAM MODIFICATION TEMPLATE

Name of Program or Name of Faculty Bachelor of Arts, Bachelor of Arts Honours Faculty of Arts and Social Sciences
Rationale for change: To recognize the increasingly interdisciplinary nature of the BA degree, while maintaining the Faculty-owned specificity of training in FASS courses.
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: Bachelor of Arts, Bachelor of Arts 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**.

Faculty of Arts and Social Sciences Degree Requirements For all bachelor of arts (BA) programs, students complete 120 units, which includes • at least 60 units that must be completed at Simon Fraser University • at least 45 upper division units, of which at least 30 upper division units must be completed at Simon Fraser University • at least 65 60 units (including 21 upper division units) in Faculty of Arts and Social Sciences courses • satisfaction of the writing, quantitative, and breadth requirements • an overall cumulative grade point average (CGPA) and upper division CGPA of at least 2.0, and minimum CGPA and upper division CGPA of at least 2.0 across all units attempted in each subject that is a major, a joint major, a minor, or an extended minor. FASS Departments may define specific requirements for their respective programs. Faculty of Arts and Social Sciences Honours Degree Requirements For all bachelor of arts (BA) honours programs, students complete at least 120 units, which includes • at least 60 units that must be completed at Simon Fraser University • satisfaction of the writing, quantitative, and breadth requirements • students complete at least 60 upper division units, which must include at least 48 units in upper division courses in a Faculty of Arts and Social Sciences honours program; no more than 15 upper division units that have been transferred from another institution can be used toward this requirement



- at least ~~65~~ **60** units (including 21 upper division units) in Faculty of Arts and Social Sciences courses
- students complete lower division requirements for at least one Faculty of Arts and Social Sciences honours program
- students are required to achieve an overall cumulative grade point average (CGPA) and upper division CGPA of at least 3.0, and an honours program CGPA and upper division CGPA of at least 3.0

Name of Program or Name of Faculty Cognitive Science
Rationale for change: Computing sciences (CMPT) has eliminated the course CMPT 127 starting in Fall 2021 (the content will be rolled into CMPT 125). CMPT 126 has not been offered recently and already fails to appear on the course calendar, causing confusing language (an 'either' with nothing following it). To reflect these changes, we propose to modify the Cognitive Science program requirements such that students must take CMPT 120 (Intro CompSci & Programming I) and CMPT 125 (Intro CompSci and Programming II).
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: Cognitive Science Major Cognitive Science Honours Cognitive Science 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**.

Cognitive Science Major, Under "Lower Division Requirements" (...) COMPUTING SCIENCE CMPT 120 - Introduction to Computing Science and Programming I (3) and either CMPT 126 or both CMPT 125 - Introduction to Computing Science and Programming II (3) CMPT 127 - Computing Laboratory (3) (...)
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Cognitive Science Honours, under “Lower Division Requirements”

(...)

COMPUTING SCIENCE

CMPT 120 - Introduction to Computing Science and Programming I (3)

and ~~either~~

~~CMPT 126~~

~~or both~~

CMPT 125 - Introduction to Computing Science and Programming II (3)

~~CMPT 127 - Computing Laboratory (3)~~

(...)

Cognitive Science Minor, under “Lower Division Requirements”

(...)

COMPUTER COMPUTING SCIENCE

Students who choose this discipline will complete

CMPT 120 - Introduction to Computing Science and Programming I (3)

and ~~either~~

~~CMPT 126~~

~~or both~~

CMPT 125 - Introduction to Computing Science and Programming II (3)

~~CMPT 127 - Computing Laboratory (3)~~

(...)

Calendar Entry Change – Requirements for Legal Studies PBD

Name of Program or Name of Faculty - Criminology

Rationale for change: To ensure students understand the main prerequisites for the courses
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: Legal Studies PBD

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**.

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 enrol in any upper division CRIM courses.

Program Requirements

Lower Division Requirements

Students complete both of

CRIM 135 - Introduction to Canadian Law and Legal Institutions: A Criminal Justice Perspective (3)

POL 151 - Justice and Law (3)

Upper Division Requirements

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

(...)

Calendar Entry Change Economics Major

Rationale for change:
Clarification of the language that describes 200 level requirements
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: Economics 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**.

(...) Students must also complete one of BUS 232 - Data and Decisions I (4) ECON 233 - Introduction to Economics Data and Statistics and both of ECON 220W - Communication in Economics (4) one additional 200 division ECON course Students must also complete BUS 232 - Data and Decisions I (4) or ECON 233-Introduction to Economics Data and Statistics (4) And ECON 220W - Communication in Economics (4) And one additional 200 division ECON course (other than ECON 201, 220W, and 233) (...)
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Calendar Entry Change Economics Extended Minor

Rationale for change:
Clarification of the language that describes 200 level requirements
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: Economics 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**.

(...) Students also complete one of — BUS 232 — Data and Decisions I (4) ECON 233 — Introduction to Economics Data and Statistics (4) and both of ECON 220W — Communication in Economics (4) one additional 200 division ECON course Students must also complete BUS 232 - Data and Decisions I (4) or ECON 233-Introduction to Economics Data and Statistics (4) And ECON 220W - Communication in Economics (4) And one additional 200 division ECON course (other than ECON 201, 220W, and 233) (...)

Calendar Entry Change Economics Honours

Rationale for change:
Clarification of the language that describes 200 level requirements
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: Economics 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**.

(...) Students must also complete one of BUS 232 – Data and Decisions I (4) ECON 233 – Introduction to Economics Data and Statistics (4) and both of ECON 220W – Communication in Economics (4) one additional 200 division ECON course Students must also complete BUS 232 - Data and Decisions I (4) or ECON 233-Introduction to Economics Data and Statistics (4) And ECON 220W - Communication in Economics (4) And one additional 200 division ECON course (other than ECON 201, 220W, and 233) (...)
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Name of Program or Name of Faculty: English

Rationale for change:

In its response to its recent External Review, the English Department committed to creating more adaptable course containers, to generating new possibilities for upper-division service teaching, to allowing more opportunities for non majors and minors to take English courses, and to showing greater responsiveness to new areas of student interest. As a result of this commitment, English embarked on a major program overhaul, which includes many course deletions, modifications, and additions.

The changes proposed in this program modification bring the Honours BA into line with the changes that have already been proposed for our other programs. They also reflect the course-level changes that have flowed from the process of curriculum revision.

Effective term and year: Fall 2021

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

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**.

English Honours

Bachelor of Arts

This program is for those with special interest in literature, ~~rhetoric, or writing~~ **writing and rhetoric, or creative writing** who wish to pursue studies beyond the major program. The honours essay (ENGL 496) allows for independent research and writing on a topic of the student's choice. Students who are planning to enter the honours program are encouraged to consult the Undergraduate Advisor or Undergraduate Chair.

Program Requirements

Students complete 120 units, as specified below. Completion of ENGL 364 is required prior to admission to the honours program.

Lower Division Requirements

Students proposing to enter the honours program will complete the same lower division ENGL courses as English majors (see below). Normally a 3.5 GPA in all Simon Fraser University English courses and a CGPA of 3.0 are required for acceptance and continuance.

Students complete two 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 - Writing to Persuade (3) *

and one of

~~ENGL 201 - Medieval Literature (3)~~
~~ENGL 203 - Early Modern Literature (3)~~

and one of

~~ENGL 205 - Restoration and Eighteenth Century Literature (3)~~
~~ENGL 206 - Nineteenth Century Literatures in English (3)~~

and two of

~~ENGL 201 - Medieval Literature (3) **~~
~~ENGL 203 - Early Modern Literature (3) **~~
~~ENGL 205 - Restoration and Eighteenth Century Literature (3) **~~
~~ENGL 206 - Nineteenth Century Literatures in English (3) **~~
~~ENGL 207 - Twentieth Century Literatures in English (3) **~~
~~ENGL 208 - 21st Century Literatures in English (3) **~~
~~ENGL 212 - Metrics and Prosody (3) **~~
~~ENGL 214 - History and Principles of Rhetoric (3) **~~
~~ENGL 216 - History and Principles of Literary Criticism (3) †~~
~~ENGL 272 - Creative Reading (3)~~

and any four of

ENGL 202 - The Environmental Imagination (3) **
ENGL 204 - Reading Sexuality and Gender (3) **
ENGL 209 - Race, Borders, Empire (3) **
ENGL 210 - Reading and Writing Identities (3) **
ENGL 211 - The Place of the Past (3) **
ENGL 213 - Reading Across Media (3) **
ENGL 214 - History and Principles of Rhetoric (3) **

ENGL 216 - History and Principles of Literary Criticism (3) †

ENGL 234 - Metrics and Prosody (3) **

ENGL 272 - Creative Reading (3)

Students who have completed a flexible pre-major with 18 lower division English transfer units have met the lower division requirements for an English major and should contact the Undergraduate advisor.

Students wishing to major in English are strongly advised to submit a formal declaration to this effect to the undergraduate advisor upon completing all lower division requirements.

* any one, but not more than one of these courses may be replaced by any three unspecified transfer units in English or in ENGL-Writing

** any one, but not more than one, of these courses may be replaced by any three unspecified 200 division transfer units in English

† **strongly recommended for honours students**

Upper Division Requirements

English honours students must obtain 48 upper division ENGL units. ~~including one of~~ **A minimum of 20 of these units must be at the 400-level, excluding Directed Studies Courses (ENGL 490, 491).**

A minimum of 4 units must be from the following group of courses, focused on Canadian and/or Indigenous Literature:

ENGL 355 – Canadian Literatures (4)

ENGL 360 - Popular Writing by Indigenous Authors (4)

ENGL 431W - Seminar in Indigenous Literature (4)

ENGL 432W - Seminar in Canadian Literature (4)

~~ENGL 300 – Old English (4)~~

~~ENGL 304 – Studies in Medieval Literature (4)~~

~~ENGL 306 – Chaucer (4)~~

~~and one of~~

~~ENGL 310 – Studies in Early Modern Literature to 1660 (4)~~

~~ENGL 311 – Early Shakespeare (4)~~

~~ENGL 313 – Late Shakespeare (4)~~

~~ENGL 315 – Studies in Seventeenth Century Non-Dramatic Literature (4)~~

~~and one of~~

~~ENGL 320—Studies in Eighteenth Century Literature (1660–1800) (4)~~

~~ENGL 322—Studies in Eighteenth Century Authors (4)~~

~~ENGL 327—Studies in Romantic Literature (4)~~

~~ENGL 330—Studies in Victorian Literature (4)~~

~~and one of~~

~~ENGL 354—Studies in Canadian Literature before 1920 (4)~~

~~ENGL 357—Studies in Canadian Literature since 1920 (4)~~

~~ENGL 359—Studies in the Literature of British Columbia (4)~~

~~ENGL 360—Popular Writing by Indigenous Authors (4)~~

~~ENGL 453W—Aboriginal Literatures (4)~~

~~ENGL 455W—Topics in Canadian Literature (4)~~

~~ENGL 457W—Topics in Asian North American Literature (4)~~

~~and all of~~

Students must complete all of the following courses:

ENGL 364 - Literary Criticism: History, Theory, and Practice (4) ††

ENGL 494 - Honours Research and Methods Seminar (4)

ENGL 496 - Honours Graduating Essay (4)

†† Course may be taken in advance of (preferred) or concurrent with English 494.

~~Of the 48 upper division ENGL units, 20 must be 400-division English, excluding directed studies courses (ENGL 441 and 442).~~

Faculty of Arts and Social Sciences Honours Degree Requirements

For all bachelor of arts (BA) honours programs, students complete at least 120 units, which includes

- at least 60 units that must be completed at Simon Fraser University
- satisfaction of the writing, quantitative, and breadth requirements
- students complete at least 60 upper division units, which must include at least 48 units in upper division courses in a Faculty of Arts and Social Sciences honours program; no more than 15 upper division units that have been transferred from another institution can be used toward this requirement

- at least 65 units (including 21 upper division units) in Faculty of Arts and Social Sciences courses
- students complete lower division requirements for at least one Faculty of Arts and Social Sciences honours program
- students are required to achieve an overall cumulative grade point average (CGPA) and upper division CGPA of at least 3.0, and an honours program CGPA and upper division CGPA of at least 3.0

Name of Program or Name of Faculty Global Asia
Rationale for change: We are adding two new electives (BUS 431, PHIL 342) to increase student choice and pathways to program completion.
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: Global Asia 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**.

<u>Upper Division Requirements</u> ... <u>TRANS-GLOBAL</u> BUS 431 - Business with East Asian Countries (3) CMNS 443 - Comparative Asian Media Systems (4) ENGL 394 - Studies in Asian Diasporic Literatures (4)* GA 300 - Asians and North Americans in Public Discourse (3) GA 301 - Asia-Canada Identities: Experiences and Perspectives (3) GA 400 - Selected Topics in Global Asia (3) GSWS 312 - Immigrants, Women and Transnational Migration (4) * HIST 322 - Atlantic and Pacific Migration (4) HIST 358 - Development, Aid and Difference in Historical Perspective (4) * HIST 368W - Selected Topics in the History of the Wider World (4) * HIST 425W - Gender and History (4) * HIST 464 - Problems in Modern Asian History (4) HUM 331 - Special Topics in Asian Religious Traditions (4) HUM 382 - Selected Topics in Asian Cultures (4) IS 322 - Central Asia: Democracy, Development and Conflicts (4)

PHIL 342 - Topics in Asian Philosophy (3)

POL 342 - Developing Countries in Global Politics (4) *

POL 343 - Global Political Economy (4) *

POL 446W - International Relations in East Asia (4)

SA 328 - States, Cultures and Global Transitions (SA) (4) *

SA 329 - Sex, Work, and International Capital (SA) (4) *

WL 304 - Exile and Migration (4)

* Students must consult their program advisor/Departmental Undergraduate Chair to ensure that content is appropriate.

Name of Program or Name of Faculty Humanities Major
Rationale for change: Simplification of requirements at the 200 level; inclusion of additional 100-level courses that allow students to build toward new concentrations; inclusion of optional concentrations
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: HUMMAJ

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 18 lower division units including HUM 101W – Introduction to the Humanities (3) and two of HUM 102W – Classical Mythology (3) HUM 105 – Many Europes: Ancient, Medieval, Early Modern (3) HUM 106 – Art and the Humanities (3) HUM 110 – The Greek World (3) HUM 121 – Walk of Life: Migrations in Eurasia from Antiquity to the Present (3) HUM 130 – Introduction to Religious Studies (3) HUM 150 – Warfare in the Hellenic World: From Plato to NATO (3) and one of HUM 202 – Great Texts in the Humanities (3) HUM 203 – Great Texts: Asian Thought and Literature (3) HUM 204 – Great Religious Texts (3) HUM 222 – Cross Cultural Perspectives on Art (3) HUM 231 – Daily Life in Ancient Greece and Rome (3)

and ~~two~~ **three** further lower division humanities courses, **including at least one 200-level course.**

Upper Division Requirements

Students complete 32 units in upper division humanities.

Students in the Humanities major program have the option of taking concentrations to enhance their programs.

Concentration in Art and Material Culture

Students may qualify for this concentration by completing two of

HUM 103 – The Invention of the Book: Alphabets, Papyrus, Parchment, and Print (3)

HUM 106 – Art and the Humanities (3)

HUM 203 – Great Texts: Asian Thought and Literature (3)

HUM 209 – Heroic Greek Tales: From the Trojans to Frankenstein (3)

HUM 211 – Art and Literature of the Italian Renaissance (3)

HUM 222 – Cross-Cultural Perspectives on Art (3)

HUM 231 – Daily Life in Ancient Greece and Rome (3)

HUM 232 – The Religions of Ancient Greece and Rome (3)

HUM 275 – From Alexander to the Caesars: The Hellenic and Roman Worlds to the End of Antiquity (3)

HUM 277 – History of Greek Civilization (3)

and four of

GA 301 – Asia-Canada Identities: Experiences and Perspectives (3)

GA 302 – Selected Topics in Chinese Studies (3)

HUM 309 – Literatures and the Arts Across Cultures (4)

HUM 311 – Italian Renaissance Humanism (4)*

HUM 313 – Roman Art and Archaeology (4)

HUM 314 – Greek Art and Archaeology (4)

HUM 340 – Great Cities in Their Time (4)

HUM 349 – Rome after Rome: The Byzantine Middle Ages from the end of Antiquity to the Crusades (4)

HUM 382 – Selected Topics in Asian Art and Cultures (4)

HUM 387 – Selected Topics in European Art and Cultures (4)

HUM 460 – Themes in Byzantine History (4)

*** When topics are appropriate. Consult with the advisor.**

Concentration in Hellenic Studies

Students may qualify for this concentration by completing

HUM 110 - The Greek World (3)

and one of

HUM 102W – Classical Mythology (3)

HUM 121 – Walk of Life: Migrations in Eurasia from Antiquity to the Present (3)

HUM 150 – Warfare in the Hellenic World: From Plato to NATO (3)

HUM 209 – Heroic Greek Tales: From the Trojans to Frankenstein (3)

HUM 220 – Rome: From Republic to Empire (3)

HUM 231 – Daily Life in Ancient Greece and Rome (3)

HUM 232 – The Religions of Ancient Greece and Rome (3)

HUM 240 – Studies in Modern Culture (3)*

HUM 275 – From Alexander to the Caesars: The Hellenic and Roman Worlds to the End of Antiquity (3)

HUM 276 – Social, Economic, and Political History of the Mediterranean (3)

HUM 277 – History of Greek Civilization (3)

HUM 279 – Greece in the 20th Century (3)

and four of

HUM 302W – Athenian Democracy (4)

HUM 304 – Alexander the Great and the Quest for World Empire (4)

HUM 349 – Rome after Rome: The Byzantine Middle Ages from the end of Antiquity to the Crusades (4)

HUM 309 – Literatures and the Arts Across Cultures (4)*

HUM 313 – Roman Art and Archaeology (4)

HUM 314 – Greek Art and Archaeology (4)

HUM 318 – Heroines in Greece and Beyond: Political Representations of Women in Film and Literature (4)

HUM 332 – Mythology in Context (4)

HUM 340 – Great Cities in Their Time (4)*

HUM 359 – Constructing the Nation State in Greece, the Balkans, and the Mediterranean (4)

HUM 381 – Selected Topics in the Humanities (4)*

HUM 387 – Selected Topics in European Art and Cultures (4)*

HUM 418 – Greeks Go Global: From Antigone to Atwood (4)

HUM 441 – Women, Property, and the Law in the Mediterranean (4)

HUM 460 – Themes in Byzantine History (4)

HUM 476 – History of Modern Greece (4)

*** When topics are appropriate. Consult with the advisor.**

Concentration in Mythologies

Students may qualify for this concentration by completing two of

HUM 102W – Classical Mythology (3)

HUM 203 – Great Texts: Asian Thought and Literature (3)

HUM 209 – Heroic Greek Tales: From the Trojans to Frankenstein (3)

and four of

HUM 311 – Italian Renaissance Humanism (4)

HUM 318 – Heroines in Greece and Beyond: Political Representations of Women in Film and Literature (4)

HUM 305 – Medieval Studies (4)*

HUM 330 – Religions in Context (4)*

HUM 332 – Mythology in Context (4)

HUM350 – Special Topics: Great Figures in the Humanities Tradition (4)*

HUM 360 – Special Topics: Great Themes in the Humanistic Tradition (4)*

HUM 381 – Selected Topics in the Humanities (4)*

HUM 387 – Selected Topics in European Art and Cultures (4)*

SA 323 – Symbol, Myth and Meaning (A) (4)

*** When topics are appropriate. Consult with the advisor.**

Concentration in Public Engagement and Intellectual Culture

Students may qualify for this concentration by completing two of

HUM 101W – Introduction to the Humanities (3)

HUM 103 – The Invention of the Book: Alphabets, Papyrus, Parchment, and Print (3)

HUM 110 – The Greek World (3)

HUM 202 – Great Texts in the Humanities (3)

HUM 204 – Great Religious Texts (3)

HUM 211 – Art and Literature of the Italian Renaissance (3)

HUM 226 – War and Society (3)

and four of

GA 301 – Asia-Canada Identities: Experiences and Perspectives (3)

GA 302 – Special Topics in Chinese Studies (3)

HUM 302W - Athenian Democracy (4)

HUM 311 – Italian Renaissance Humanism (4)

HUM 312W – Renaissance Studies (4)

HUM 318 – Heroines in Greece and Beyond: Political Representations of Women in Film and Literature (4)

HUM 320 – Cross-Cultural Philosophy in the Humanities (4)

HUM 321W – The Humanities and Critical Thinking (4)

HUM 330 – Religions in Context (4)

HUM 382 – Selected Topics in Asian Art and Cultures (4)

HUM 418 – Greeks Go Global: From Antigone to Atwood (4)

Name of Program or Name of Faculty Humanities Joint Major
Rationale for change: Simplification of requirements at the 200 level; inclusion of additional 100-level courses that allow students to build toward new concentrations; inclusion of optional concentrations; deletion of courses no longer offered; inclusion of new courses, course title changes.
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: English and Humanities Joint Major French and Humanities Joint Major History and Humanities Joint Major Humanities and Gender, Sexuality, and Women's Studies Joint Major Philosophy and Humanities 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**.

English and Humanities Joint Major Humanities Lower Division Requirements Students complete 15 units including HUM 101W - Introduction to the Humanities (3) and one of HUM 102W – Classical Mythology (3) HUM 105 – Many Europes: Ancient, Medieval, Early Modern (3) HUM 106 – Art and the Humanities (3) HUM 110 – The Greek World (3) HUM 121 – Walk of Life: Migrations in Eurasia from Antiquity to the Present (3) HUM 130 – Introduction to Religious Studies (3) HUM 150 – Warfare in the Hellenic World: From Plato to NATO (3)
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~~and one of~~

~~HUM 202 – Great Texts in the Humanities (3)~~

~~HUM 203 – Great Texts: Asian Thought and Literature (3)~~

~~HUM 204 – Great Religious Texts (3)~~

~~HUM 222 – Cross Cultural Perspectives on Art (3)~~

~~HUM 231 – Daily Life in Ancient Greece and Rome (3)~~

and ~~two~~ **three** further lower division humanities courses, **including at least one 200-level course.**

Humanities Upper Division Requirements

Students complete 20 units in upper division humanities courses.

The following courses are recommended.

HUM 305 – Medieval Studies (4)

~~HUM 307 – Carolingian Civilization (4)~~

HUM 311 – Italian Renaissance Humanism (4)

HUM 312W – Renaissance Studies (4)

HUM 321W – The Humanities and Critical Thinking (4)

Students in the Humanities joint major programs have the option of taking concentrations to enhance their programs.

Concentration in Art and Material Culture [add link]

Concentration in Hellenic Studies [add link]

Concentration in Mythologies [add link]

Concentration in Public Engagement and Intellectual Culture [add link]

French and Humanities Joint Major

Humanities Lower Division Requirements

Students complete 15 units including

HUM 101W - Introduction to the Humanities (3)

and one of

HUM 102W – Classical Mythology (3)

HUM 105 – Many Europes: Ancient, Medieval, Early Modern (3)

HUM 106 – Art and the Humanities (3)

HUM 110 – The Greek World (3)

HUM 121 – Walk of Life: Migrations in Eurasia from Antiquity to the Present (3)

HUM 130 – Introduction to Religious Studies (3)

HUM 150 – Warfare in the Hellenic World: From Plato to NATO (3)

~~and one of~~

~~HUM 202 – Great Texts in the Humanities (3)~~

~~HUM 203 – Great Texts: Asian Thought and Literature (3)~~

~~HUM 204 – Great Religious Texts (3)~~

~~HUM 222 – Cross Cultural Perspectives on Art (3)~~

~~HUM 231 – Daily Life in Ancient Greece and Rome (3)~~

and ~~two~~ **three** further lower division humanities courses, **including at least one 200-level course.**

Humanities Upper Division Requirements

Students complete 20 units in upper division humanities courses.

Recommended

~~HUM 307 – Carolingian Civilization (4)~~

HUM 311 – Italian Renaissance Humanism (4)

Students in the Humanities joint major programs have the option of taking concentrations to enhance their programs.

Concentration in Art and Material Culture [add link]

Concentration in Hellenic Studies [add link]

Concentration in Mythologies [add link]

Concentration in Public Engagement and Intellectual Culture [add link]

History and Humanities Joint Major

Humanities Lower Division Requirements

Students complete 15 units including

HUM 101W - Introduction to the Humanities (3)

and one of

HUM 102W – Classical Mythology (3)

HUM 105 – Many Europes: Ancient, Medieval, Early Modern (3)

HUM 106 – Art and the Humanities (3)

HUM 110 – The Greek World (3)

HUM 121 – Walk of Life: Migrations in Eurasia from Antiquity to the Present (3)

HUM 130 – Introduction to Religious Studies (3)

HUM 150 – Warfare in the Hellenic World: From Plato to NATO (3)

~~and one of~~

~~HUM 202 – Great Texts in the Humanities (3)~~

~~HUM 203 – Great Texts: Asian Thought and Literature (3)~~

~~HUM 204 – Great Religious Texts (3)~~

~~HUM 222 – Cross Cultural Perspectives on Art (3)~~

~~HUM 231 – Daily Life in Ancient Greece and Rome (3)~~

and ~~two~~ **three** further lower division humanities courses, **including at least one 200-level course.**

Humanities Upper Division Requirements

Students complete 20 units in upper division humanities courses. The following courses are recommended.

~~HUM 302W – The Golden Age of Greece: An Integrated Society~~ **Athenian Democracy (4)**

HUM 303 – The Latin Humanist Tradition (4)

HUM 305 – Medieval Studies (4)

~~HUM 307 – Carolingian Civilization (4)~~

HUM 311 – Italian Renaissance Humanism (4)

HUM 312W – Renaissance Studies (4)

Students in the Humanities joint major programs have the option of taking concentrations to enhance their programs.

Concentration in Art and Material Culture [add link]

Concentration in Hellenic Studies [add link]

Concentration in Mythologies [add link]

Concentration in Public Engagement and Intellectual Culture [add link]

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

Lower Division Humanities Requirements

Students complete 15 units including

HUM 101W – Introduction to the Humanities (3)

and one of

HUM 102W – Classical Mythology (3)

HUM 105 – Many Europes: Ancient, Medieval, Early Modern (3)

HUM 106 – Art and the Humanities (3)

HUM 110 – The Greek World (3)

HUM 121 – Walk of Life: Migrations in Eurasia from Antiquity to the Present (3)

HUM 130 – Introduction to Religious Studies (3)

HUM 150 – Warfare in the Hellenic World: From Plato to NATO (3)

~~and one of~~

~~HUM 202 – Great Texts in the Humanities (3)~~

~~HUM 203 – Great Texts: Asian Thought and Literature (3)~~

~~HUM 204 – Great Religious Texts (3)~~

~~HUM 222 – Cross-Cultural Perspectives on Art (3)~~

~~HUM 231 – Daily Life in Ancient Greece and Rome (3)~~

and ~~two~~ **three** further lower division humanities courses, **including at least one 200-level course.**

Upper Division Humanities Requirements

Students complete a total of 20 units in upper division humanities courses and the following are recommended.

HUM 320 – Cross-Cultural Philosophy in the Humanities (4)

HUM 321W – The Humanities and Critical Thinking (4)

HUM 325 – The Humanities and the Natural World (4)

Students in the Humanities joint major programs have the option of taking concentrations to enhance their programs.

Concentration in Art and Material Culture [add link]

Concentration in Hellenic Studies [add link]
Concentration in Mythologies [add link]
Concentration in Public Engagement and Intellectual Culture [add link]

Philosophy and Humanities Joint Major

Humanities Lower Division Requirements

Students complete 15 units including

HUM 101W – Introduction to the Humanities (3)

and one of

HUM 102W – Classical Mythology (3)

HUM 105 – Many Europes: Ancient, Medieval, Early Modern (3)

HUM 106 – Art and the Humanities (3)

HUM 110 – The Greek World (3)

HUM 121 – Walk of Life: Migrations in Eurasia from Antiquity to the Present (3)

HUM 130 – Introduction to Religious Studies (3)

HUM 150 – Warfare in the Hellenic World: From Plato to NATO (3)

~~and one of~~

~~HUM 202 – Great Texts in the Humanities (3)~~

~~HUM 203 – Great Texts: Asian Thought and Literature (3)~~

~~HUM 204 – Great Religious Texts (3)~~

~~HUM 222 – Cross Cultural Perspectives on Art (3)~~

~~HUM 231 – Daily Life in Ancient Greece and Rome (3)~~

and ~~two~~ **three** further lower division humanities courses, **including at least one 200-level course.**

Humanities Upper Division Requirements

Students complete **a total of 20** units in upper division humanities courses **and the following are recommended.**

~~Recommended~~

HUM 320 – Cross-Cultural Philosophy in the Humanities (4)

HUM 321W – The Humanities and Critical Thinking (4)

Students in the Humanities joint major programs have the option of taking concentrations to enhance their programs.



Concentration in Art and Material Culture [add link]
Concentration in Hellenic Studies [add link]
Concentration in Mythologies [add link]
Concentration in Public Engagement and Intellectual Culture [add link]

Name of Program or Name of Faculty Humanities Minor
Rationale for change: Simplification of requirements at the 200 level; inclusion of additional 100-level courses that allow students to build toward new concentrations; inclusion of optional concentrations
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: HUMMIN

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 nine lower division units including HUM 101W – Introduction to the Humanities (3) and one of HUM 202 – Great Texts in the Humanities (3) HUM 203 – Great Texts: Asian Thought and Literature (3) HUM 204 – Great Religious Texts (3) HUM 222 – Cross-Cultural Perspectives on Art (3) HUM 231 – Daily Life in Ancient Greece and Rome (3) and one two further lower division Humanities courses, including at least one 200-level course. Upper Division Requirements Students complete 16 units in upper division humanities courses. See HUM courses.
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Students in the Humanities programs have the option of taking concentrations to enhance their programs.

Concentration in Art and Material Culture [add link]

Concentration in Hellenic Studies [add link]

Concentration in Mythologies [add link]

Concentration in Public Engagement and Intellectual Culture [add link]

Name of Program or Name of Faculty Humanities Extended Minor
Rationale for change: Simplification of requirements at the 200 level; inclusion of additional 100-level courses that allow students to build toward new concentrations; inclusion of optional concentrations
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: HUMEMI

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 18 lower division units including HUM 101W – Introduction to the Humanities (3) and two of HUM 102W – Classical Mythology (3) HUM 105 – Many Europes: Ancient, Medieval, Early Modern (3) HUM 106 – Art and the Humanities (3) HUM 110 – The Greek World (3) HUM 121 – Walk of Life: Migrations in Eurasia from Antiquity to the Present (3) HUM 130 – Introduction to Religious Studies (3) HUM 150 – Warfare in the Hellenic World: From Plato to NATO (3) and one of HUM 202 – Great Texts in the Humanities (3) HUM 203 – Great Texts: Asian Thought and Literature (3)
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~~HUM 204—Great Religious Texts (3)~~
~~HUM 222—Cross Cultural Perspectives on Art (3)~~
~~HUM 231—Daily Life in Ancient Greece and Rome (3)~~

and ~~two~~ **three** further lower division humanities courses, **including at least one 200-level course.**

Upper Division Requirements

Students complete 16 units in upper division humanities courses. See HUM courses.

Students in the Humanities programs have the option of taking concentrations to enhance their programs.

Concentration in Art and Material Culture [add link]

Concentration in Hellenic Studies [add link]

Concentration in Mythologies [add link]

Concentration in Public Engagement and Intellectual Culture [add link]

Name of Program or Name of Faculty Medieval and Renaissance Studies Certificate
Rationale for change: Deletion of courses no longer offered; addition of new relevant courses; adjust for changes to ENGL curriculum
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: CMREN

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

With prior approval from the advisor, students may complete other relevant courses that do not appear in the following list. Students are responsible for fulfilling any of the following courses' prerequisites.

Students complete a minimum of 30 units, including at least three of

HIST 220 – Late Medieval and Renaissance Europe (3)

HUM 103 – The Invention of the Book: Alphabets, Papyrus, Parchment, and Print (3)

HUM 105 – Many Europes: Ancient, Medieval, Early Modern (3)

HUM 211 – Art and Literature of the Italian Renaissance (3)

HUM 219 – The Early Middle Ages (3)

HUM 275 – From Alexander to the Caesars: The Hellenic and Roman Worlds to the End of Antiquity (3) or HIST 275 – From Alexander to the Caesars: The Hellenic and Roman Worlds to the End of Antiquity (3)

and two of

HUM 305 – Medieval Studies (4)

~~HUM 307 – Carolingian Civilization (4)~~

HUM 311 – Italian Renaissance Humanism (4)

HUM 312W – Renaissance Studies (4)

HUM 340 – Great Cities in Their Time (4) **

HUM 349 – Rome after Rome: The Byzantine Middle Ages from the end of Antiquity to the Crusades (4) or HIST 349 – Rome after Rome: The Byzantine Middle Ages from the end of Antiquity to the Crusades (4)

HIST 402 – Renaissance Italy (4)

HUM 460 – Themes in Byzantine Studies (4) or HIST 460 – Themes in Byzantine Studies (4)

and 13 units chosen from

~~ENGL 201 – Medieval Literature (3)~~

ENGL 300 – Old English (4)

ENGL 304 – ~~Studies in The Medieval Literature~~ **World (4)**

~~ENGL 306 – Chaucer (4)~~

ENGL 310 – ~~Studies in Early Modern Literature to 1660~~ **Words and Worlds (4)**

~~ENGL 311 – Early Shakespeare (4)~~

~~ENGL 313 – Late Shakespeare (4)~~

ENGL 312 – Shakespeare and the Stage: 1570-1642

ENGL 202 – The Environmental Imagination**

ENGL 204 – Reading Sexuality and Gender**

ENGL 209 – Race, Borders, Empire**

ENGL 210 – Reading and Writing Identities**

ENGL 211 – The Place of the Past**

ENGL 213 – Reading Across Media**

FREN 341 – Survey of French Literature to 1600 (3) **

HIST 249 – Classical Islamic Civilization (3)

HIST 288 – History of Christianity to 1500 (3)

HUM 101W – Introduction to the Humanities (3)

HUM 161 – Latin I (3)

HUM 162 – Latin II (3)

~~HUM 349 – Rome after Rome: The Byzantine Middle Ages from the end of Antiquity to the Crusades (4)~~

** when topics are appropriate; consult with the advisor

Name of Program or Name of Faculty Religious Studies Certificate
Rationale for change: Addition of relevant courses that had not been included yet; deletion of a course no longer offered
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: CRELS

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 at least 30-31 units, 13-14 of which are earned by completing the four required courses. The remaining units are selected from the elective list. Students are responsible for meeting the prerequisite requirements for courses used toward the certificate.

Required Courses

Students complete 13-14 units including both of

HUM 130 – Introduction to Religious Studies (3)

HUM 330 – Religions in Context (4)

and two of

ARCH 226 – The Prehistory of Religion: Shamans, Sorcerers and Saints (3)

HUM 204 – Great Religious Texts (3)

HUM 232 – The Religions of Ancient Greece and Rome (3)

HUM 331 – Special Topics in Asian Religious Traditions (4)

Elective Courses

Students complete a total of 17 units, chosen from

- GA 202 – Studies in Asian Cultures (3) *
- GA 302 – Selected Topics in Chinese Studies (3) *
- GA 303 – Selected Topics in Japanese Studies (3) *
- GA 400 – Selected Topics in Global Asia (3) *
- HIST 220 – Late Medieval and Renaissance Europe (3)
- HIST 249 – Classical Islamic Civilization (3)
- HIST 288 – History of Christianity to 1500 (3)
- HIST 320 – European Reformation (4)
- HIST 352 – Religion and Politics in Modern Iran (4)
- HIST 388 – Religion and Globalization (4)
- HIST 404 – Problems in Early Modern England (4)
- HIST 439 – Catholicism in Early Modern Europe (4)
- HIST 468W – Problems in the History of Religion (4)
- HIST 469 – Islamic Social and Intellectual History (4)
- HUM 102W – Classical Mythology (3)
- HUM 203 – Great Texts: Asian Thought and Literature (3) *
- HUM 219 – The Early Middle Ages (3)
- ~~HUM 232 – The Religions of Ancient Greece and Rome (3)~~
- HUM 305 – Medieval Studies (4) *
- ~~HUM 307 – Carolingian Civilization (4)~~
- HUM 332 – Mythology in Context (4)
- HUM 350 – Special Topics: Great Figures in the Humanistic Tradition (4) *
- HUM 360 – Special Topics: Great Themes in the Humanistic Tradition (4) ***
- HUM 375 – The Woodsworth Seminar (4) *
- SA 322 – Religion and Society (SA) (4)
- SA 323 – Symbol, Myth and Meaning (A) (4)

* when topics are appropriate; consult with the advisor; other courses with appropriate content may be counted with prior approval of the advisor.

Name of Program or Name of Faculty Hellenic Studies Certificate
Rationale for change: Deletion of courses no longer offered; addition of new relevant course; course title change
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: CHS

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 must complete 19 units, including one upper division course chosen from the following.

Lower Division Courses

GRK 191 – Modern Greek for Beginners Level I (3)
 GRK 192 – Modern Greek for Beginners Level II (3)
 GRK 291 – Modern Greek Intermediate Level I (3)
 GRK 292 – Modern Greek Intermediate Level II (3)
 HUM 102W – Classical Mythology (3)
 HUM 110 – The Greek World (3)
HUM 121 – Walk of Life: Migrations in Eurasia from Antiquity to the Present (3)
 HUM 150 – Warfare in the Hellenic World: From Plato to NATO (3)
 HUM 151 – Ancient Greek I (3)
 HUM 209 – Heroic Greek Tales: From the Trojans to Frankenstein (3)
 HUM 220 – Rome: From Republic to Empire (3)
 HUM 226 – War and Society (3)
 HUM 231 – Daily Life in Ancient Greece and Rome (3)
 HUM 232 – The Religions of Ancient Greece and Rome (3)
 HUM 275 – From Alexander to the Caesars: The Hellenic and Roman Worlds to the End of Antiquity (3) *
 HUM 276 – Social, Economic, and Political History of the Mediterranean (3) *

HUM 277 – History of Greek Civilization (3) *
~~HUM 278 – The Greeks in the Ottoman Empire (3) *~~
HUM 279 – Greece in the 20th Century (3) *
~~HUM 280 – War in the Balkans and the Making of the 21st Century (3) **~~

Upper Division Courses

Students must complete at least one course from the following

ARCH 312 – Greek Art and Archaeology (4) or HUM 314 - Greek Art and Archaeology (4)
ARCH 313 – Roman Art and Archaeology (4) or HUM 313 - Roman Art and Archaeology (4)
HIST 304 – Alexander the Great and the Quest for World Empire (4) or HUM 304 - Alexander the Great and the Quest for World Empire (4)
HUM 302W – ~~The Golden Age of Greece: An Integrated Society~~ **Athenian Democracy** (4)
HUM 309 – Literatures and the Arts Across Cultures (4) **
HUM 359 – Constructing the Nation State in Greece, the Balkans, and the Mediterranean (4) *
~~HUM 364 – Traveller, Diplomatic, and Media Narratives in Greece, the Balkans and the Mediterranean (4) *~~
HUM 441 – Women, Property, and the Law in the Mediterranean (4) *
HUM 460 – Themes in Byzantine History (4) *

* These courses are also available with a HIST designation. Either HUM or HIST designation can be used towards the certificate.

** When topics are appropriate. Consult with the advisor.

Calendar Entry Change

Name of Program or Name of Faculty: School for International Studies, FASS

Rationale for change: Updating curriculum with newly proposed course.
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: ISMAJ, ISMIN, ISHON, IS/WLJMAJ

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 [...] International Security and Conflict Concentration [...] IS 309 - Special Topics in International Security and Conflict (4) IS 310 – Gender and Security (4) IS 314 - National, Regional, and International Politics in Southeast Asia (4) [...]
--

Calendar Entry Change

Name of Program or Name of Faculty: School for International Studies, FASS

Rationale for change: Updating curriculum with addition of newly proposed course.
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: CIS

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**.

Global, Variable or Cross-Regional Coverage [...] IS 309 - Special Topics in International Security and Conflict (4) IS 310 – Gender and Security (4) IS 319 - Special Topics in Comparative World Politics, Culture and Society (4) [...]

Calendar Entry Change

Department of Labour Studies

Faculty of Arts and Social Sciences

Rationale for change:

To accommodate and integrate the regularization of LBST 305 as a new cross-listed course with GSWS 308.

Effective term and year:

Fall 2021

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

Labour Studies 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**.

Upper Division Requirements

Students complete a minimum of 30 units, including

LBST 301W - Labour Movements: Issues, Images and Popular Culture (3)

plus 21 units taken from the following

LBST 305 - Gendering Economy: Paid and Unpaid Labour (4)

LBST 306 - The Political Economy of Labour Markets: Critical and Radical Approaches (3)

LBST 307 - Unfree Labour and Modern Slavery: Understanding Coercion and Exploitation in Contemporary Labour Markets (3)

LBST 308 - The Labour Process: Technological Change and the Future of Work (3)

LBST 309 - Labour and Collective Bargaining (3)

LBST 310 - The Politics of Labour (3)

LBST 311 - Labour and the Environment (3)

LBST 312 - Global Labour Migration (3)

LBST 313 - Introduction to Canadian Labour Law (3)
LBST 328 - Labour Geographies (4) or GEOG 328 - Labour Geographies (4)
LBST 330 - Selected Topics in Labour Studies (3) *
LBST 331 - Selected Topics in Labour Studies (4) *
LBST 431 - Selected Topics in Labour Studies (4) *

Calendar Entry Change

Department of Labour Studies

Faculty of Arts and Social Sciences

Rationale for change:

To accommodate and integrate the regularization of LBST 305 as a new cross-listed course with GSWS 308.

Effective term and year:

Fall 2021

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

Labour Studies Certificate in Workplace Rights

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 minimum of 18 units including

One of

LBST 100 - Equality and Inequality at Work (3)

LBST 101 - Introducing Labour Studies (3)

and

LBST 201 - Workers in the Global Economy: Globalization, Labour and Uneven Development (3) **

LBST 309 - Labour and Collective Bargaining (3)

LBST 313 - Introduction to Canadian Labour Law (3)

and the remaining electives may be chosen from the list below:

BPK 381 - Psychology of Work (3)

BUS 484 - Employment Systems (3)

BUS 485 - Negotiations and Conflict Management (3)

BUS 488 - Group Dynamics and Teamwork (3)

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

ECON 103 - Principles of Microeconomics (4)

ECON 280 - Introduction to Labor Economics (3)

ECON 381 - Labor Economics (3)

GSWS 308 - Gendering Economy: Paid and Unpaid Labour (4) or LBST 305 - Gendering Economy: Paid and Unpaid Labour (4)

GSWS 314 - Race, Class and Gender (4)

GSWS 321 - Special Topics in Gender, Sexuality, and Women's Studies (4)

HIST 327 - Canadian Labor and Working Class History (4)

HIST 424 - Problems in the Cultural History of Canada (4) *

HIST 428 - Problems in the Social and Economic History of Canada (4) *

LBST 100 - Equality and Inequality at Work (3)

LBST 101- Introducing Labour Studies (3)

LBST 202 - Labour Research for Social Change: Methods and Approaches (3)

LBST 230 - Special Topics in Labour Studies (3)

LBST 301W - Labour Movements: Issues, Images and Popular Culture (3)

LBST 306 - The Political Economy of Labour Markets: Critical and Radical Approaches (3)

LBST 307 - Unfree Labour and Modern Slavery: Understanding Coercion and Exploitation in Contemporary Labour Markets (3)

LBST 308 - The Labour Process: Technological Change and the Future of Work (3)

LBST 310 - The Politics of Labour (3)

LBST 311 - Labour and the Environment (3)

LBST 312 - Global Labour Migration (3)

LBST 330 - Selected Topics in Labour Studies (3) ***

LBST 331 - Selected Topics in Labour Studies (4) *

LBST 431 - Selected Topics in Labour Studies (4) *

POL 222 - Introduction to Canadian Politics (3)

POL 343 - Global Political Economy (4)

SA 321 - Social Movements (S) (4)

SA 340 - Social Issues and Social Policy Analysis (SA) (4)

SA 362 - Society and the Changing Global Division of Labour (S) (4)

Name of Program or Name of Faculty Linguistics of Speech Science Certificate, Linguistics, Faculty of Arts and Social Sciences
Rationale for change: Adding the new Ling 315 to the set of electives that can meet program requirements gives students more options and a course that is directly relevant to speech science.
Effective term and year: Fall, 2021
The following program(s) will be affected by these changes: Linguistics of Speech Science Certificate, Linguistics

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 18 units including all of Ling 200 – Foundations of English Grammar (3) Ling 290 – The Science of Speech (3) Ling 330 – Phonetics (3) Ling 350 – First Language Acquisition (3) and two of Ling 315 – Psychology of Language (3) Ling 321 – Phonology (3) Ling 322 – Syntax (3) Ling 401 – Topics in Phonetics (3) Ling 411 – Topics in Applied Phonetics (3) Ling 415 – Neurolinguistics (3) ...

Name of Program or Name of Faculty Philosophy and Health Sciences Joint Major
Rationale for change: The philosophy department has created a number of new ethics courses in recent years, but the <i>Philosophy and Health Sciences Joint Major</i> has not been updated. The change I recommend here will give students more flexibility.
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: Philosophy and Health Sciences 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**.

Upper Division Philosophy Requirements Students complete a total of 20 upper division philosophy units, including at least one of PHIL 320 - Social and Political Philosophy (3) PHIL 321 - Topics in Moral Philosophy (3) PHIL 322 - History of Ethics (3) † PHIL 326 - Topics in Law and Philosophy (3) PHIL 328 – Environmental Philosophy (3) PHIL 329 - Law and Justice (3)

Name of Program or Name of Faculty Philosophy Double Minor
Rationale for change: I would like to update the requirements for the <i>Philosophy Double Minor</i> by including some newer courses. This will give students more flexibility, and bring the requirements of the Double Minor into line with those of the major.
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: Philosophy Double 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 at least 15 upper division units, including one of PHIL 320 - Social and Political Philosophy (3) PHIL 321 - Topics in Moral Philosophy (3) PHIL 322 - History of Ethics (3) † PHIL 326 - Topics in Law and Philosophy (3) PHIL 329 - Law and Justice (3) and one of PHIL 302 - Topics in Epistemology and Metaphysics (3) PHIL 341 - Philosophy of Science (3) PHIL 343 - Topics in the Philosophy of Mind (3) PHIL 344 - Topics in the Philosophy of Language (3) PHIL 345W - Philosophy of Mathematics (3)



Calendar Entry Change

Name of Program or Name of Faculty

Political Science Major

Rationale for change:

POL 101W and POL 251 are being deleted as the courses are outdated and no longer offered.

Effective term and year: Fall 2021

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

Political Science 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 Declaration

Students can apply for the Political Science Major program after completing the following four Political Science courses with minimum C grades:

~~one of~~

POL 100 - Introduction to Politics and Government (3)

~~POL 101W - Introduction to Politics and Government (3)~~

~~and all of~~

POL 200W - Investigating Politics: Research Design and Qualitative Methods (4)

POL 201 - Introductory Quantitative Methods in Political Science (4)

POL 210 - Introduction to Political Philosophy (3)

Program Requirements

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

Lower Division Requirements

Students complete a ~~total~~ **minimum** of seven courses, including

~~one of~~

POL 100 - Introduction to Politics and Government (3)

~~POL 101W - Introduction to Politics and Government (3)~~

~~and all of~~

POL 200W - Investigating Politics: Research Design and Qualitative Methods (4)

POL 201 - Introductory Quantitative Methods in Political Science (4)

POL 210 - Introduction to Political Philosophy (3)

and one of

POL 221 - Introduction to Canadian Government (3)

POL 222 - Introduction to Canadian Politics (3)

~~POL 251 - Introduction to Canadian Public Administration (3)~~

POL 253 - Introduction to Public Policy (3)

and one of

POL 121 - Political Engagement: From the Streets to the Ballot Box (3)

~~POL 141 - War, International Cooperation and Development (3)~~

POL 141 - International Relations (3)

and **at least** one additional lower division course in Political Science.

...



Calendar Entry Change

Name of Program or Name of Faculty

Political Science Minor

Rationale for change:

POL 101W is being deleted as the course is outdated and no longer offered.

Effective term and year: Fall 2021

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

Political Science 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**.

Program Declaration

Students can apply for the Political Science Minor program after completing **the following two** 12-lower division Political Science ~~units~~ **courses with** including a minimum C grades ~~in:~~

~~one of~~

POL 100 - Introduction to Politics and Government (3)

~~POL 101W - Introduction to Politics and Government (3)~~

POL 200W - Investigating Politics: Research Design and Qualitative Methods (4)

Program Requirements

Lower Division Requirements

Students complete a ~~total~~ **minimum** of ~~13 units~~ **4 courses**, including

~~A minimum of a C grade in:~~

~~one of~~

POL 100 - Introduction to Politics and Government (3)

~~POL 101W - Introduction to Politics and Government (3)~~



and

POL 200W - Investigating Politics: Research Design and Qualitative Methods (4)

and at least ~~six~~ **two** additional lower division **courses in** Political Science ~~units~~.

...



Calendar Entry Change

Name of Program or Name of Faculty

Political Science Extended Minor

Rationale for change:

POL 101W and POL 251 are being deleted as the courses are outdated and no longer offered.

Effective term and year: Fall 2021

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

Political Science 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**.

Program Declaration

Students can apply for the Political Science Extended Minor program after completing the following four Political Science courses with minimum C grades:

~~one of~~

POL 100 - Introduction to Politics and Government (3)

~~POL 101W - Introduction to Politics and Government (3)~~

~~and all of~~

POL 200W - Investigating Politics: Research Design and Qualitative Methods (4)

POL 201 - Introductory Quantitative Methods in Political Science (4)

POL 210 - Introduction to Political Philosophy (3)

Program Requirements

This program is based on the lower division requirements (100 and 200 division courses) of the major program and the upper division requirements (300 and 400 division courses) of the minor program as follows.

Lower Division Requirements

Students complete a ~~total~~ **minimum** of seven courses, including

~~one of~~

POL 100 - Introduction to Politics and Government (3)

~~POL 101W - Introduction to Politics and Government (3)~~

~~and all of~~

POL 200W - Investigating Politics: Research Design and Qualitative Methods (4)

POL 201 - Introductory Quantitative Methods in Political Science (4)

POL 210 - Introduction to Political Philosophy (3)

and one of

POL 221 - Introduction to Canadian Government (3)

POL 222 - Introduction to Canadian Politics (3)

~~POL 251 - Introduction to Canadian Public Administration (3)~~

POL 253 - Introduction to Public Policy (3)

and one of

POL 121 - Political Engagement: From the Streets to the Ballot Box (3)

~~POL 141 - War, International Cooperation and Development (3)~~

POL 141 - International Relations (3)

and **at least** one additional lower division course in Political Science.

...



Calendar Entry Change

Name of Program or Name of Faculty

Political Science Honours

Rationale for change:

POL 101W and POL 251 are being deleted as the courses are outdated and no longer offered.

Effective term and year: Fall 2021

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

Political Science 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 Declaration

We encourage Political Science majors who have a 3.0 cumulative grade point average and an upper division grade point average of 3.33 to apply for the honours program.

An application form is available from the departmental advisor. Once the application is submitted, it is reviewed by the undergraduate studies Chair.

Program Requirements

A minimum of 120 units, including a minimum of 60 upper division units, as specified below.

Lower Division Requirements

Students complete a ~~total~~ **minimum** of seven courses, including

~~one of~~

POL 100 - Introduction to Politics and Government (3)

~~POL 101W - Introduction to Politics and Government (3)~~

~~and all of~~

POL 200W - Investigating Politics: Research Design and Qualitative Methods (4)

POL 201 - Introductory Quantitative Methods in Political Science (4)

POL 210 - Introduction to Political Philosophy (3)

and one of

POL 221 - Introduction to Canadian Government (3)

POL 222 - Introduction to Canadian Politics (3)

~~POL 251 - Introduction to Canadian Public Administration (3)~~

POL 253 - Introduction to Public Policy (3)

and one of

POL 121 - Political Engagement: From the Streets to the Ballot Box

(3) ~~POL 141 - War, International Cooperation and Development (3)~~

POL 141 - International Relations (3)

and **at least** one additional lower division course in Political Science.

...

Calendar Entry Change

Name of Program or Name of Faculty

Political Science and Economics Joint Major

Rationale for change:

POL 101W and POL 251 are being deleted as the courses are outdated and no longer offered.

Effective term and year: Fall 2021

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

Political Science and Economics 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

Students complete 120 units, as specified below.

Lower Division Political Science Requirements

Students complete a minimum of ~~22 units~~ **6 courses**, including ~~one of~~

POL 100 - Introduction to Politics and Government (3)

~~POL 101W - Introduction to Politics and Government (3)~~

~~and all of —~~

POL 221 - Introduction to Canadian Government (3)

POL 222 - Introduction to Canadian Politics (3)

~~POL 251 - Introduction to Canadian Public Administration (3)~~

and one of

BUS 232 - Data and Decisions I (4)

ECON 233 - Introduction to Economics Data and Statistics (4)

POL 201 - Introductory Quantitative Methods in Political Science (4) *

and **at least six two additional** lower division ~~units~~ **courses** in political science.

* recommended

...



Calendar Entry Change

Name of Program or Name of Faculty

Political Science and Gender, Sexuality, and Women's Studies Joint Major

Rationale for change:

POL 101W is being deleted as the course is outdated and no longer offered.

Effective term and year: Fall 2021

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

Political Science 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

Students complete 120 units, as specified below.

Lower Division Political Science Requirements

Students complete a ~~total~~ **minimum** of ~~16 units~~ **5 courses**, including ~~one of~~

POL 100 - Introduction to Politics and Government (3)

~~POL 101W - Introduction to Politics and Government (3)~~

and

POL 201 - Introductory Quantitative Methods in Political Science (4)

and an additional nine at least three additional lower division units courses in Political Science

...

Calendar Entry Change Social Data Analytics Program

Rationale for change: Adding an elective course
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: Social Data Analytics 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**.

... Elective Requirements Students complete a total of at least 12 elective units, as follows: No more than four units of which may come from: CMNS 333 - Digital Policies in a Global Context: Current Issues, Concepts and Analysis (4) CMNS 353 - Topics in Technology and Society (4) ENGL 363 - Studies in Digital Humanities: Theory and Practice (4) GSWS 399 - Gender, Sex and Numbers (4) POL 318 - Fake News and Alt-Facts: Navigating Post-Truths Politics (4) POL 426W - Political Behavior (4) No more than four units of which may come from: ECON 334 - Data Visualization and Economic Analysis (3) POL 390 - Data Visualization and Political Analysis (3) STAT 240 - Introduction to Data Science (3) STAT 310 - Introduction to Data Science for the Social Sciences (2) and STAT 311 - Data Science Laboratory for the Social Sciences (2) Any of: ECON 329 - Experimental Economics (3) ECON 335 - Introduction to Casual Inference and Policy Evaluation (3)

ECON 435 - Econometric Methods (5)

GEOG 255 - Geographical Information Science I (3)

GEOG 355 - Geographical Information Science II (4)

LING 450 – Computational Linguistics (3)

PHIL 315 - Formal Methods (3)

POL 315 - Intermediate Quantitative Methods (4)

POL 488 - Topics in Empirical Research Design and Analysis (4)

STAT 302 - Analysis of Experimental and Observational Data (3)

STAT 360 - Advanced R for Data Science (2) and STAT 361 - Laboratory for Advanced R for Data Science (1)

STAT 452 - Statistical Learning and Prediction (3)

With approval of the program director, up to six units of relevant courses from other departments may be counted for the minor.

Name of Program or Name of Faculty PSYCHOLOGY
Rationale for change: STAT 270 accepted
Effective term and year: 1217 - Fall 2021
The following program(s) will be affected by these changes: Behavioural Neuroscience Honours, Behavioural Neuroscience Major, PSYC Honours, PSYC Major, PSYC Honours with ABA Concentration, PSYC Major with ABA Concentration, PSYC Extended Minor, BUS PSYC JMA, GSWS PSYC JMA, CRIM PSYC JMA

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**.

Behavioural Neuroscience Major SET 2 Students must complete Courses listed in SET 1 not yet taken PSYC 210 - Introduction to Data Analysis in Psychology (4) or STAT 270 Introduction to Probability and Statistics (3) (...) Lower Division Requirements Students complete all of the following 58 units. (...) PSYCHOLOGY PSYC 100 - Introduction to Psychology I (3) PSYC 102 - Introduction to Psychology II (3) PSYC 201W - Introduction to Research Methods in Psychology (4) PSYC 210 - Introduction to Data Analysis in Psychology (4) or STAT 270 Introduction to Probability and Statistics (3) (...) Behavioural Neuroscience Honours Lower Division Requirements Students complete all of the following 58 units. (...) PSYCHOLOGY PSYC 100 - Introduction to Psychology I (3) PSYC 102 - Introduction to Psychology II (3) PSYC 201W - Introduction to Research Methods in Psychology (4) PSYC 210 - Introduction to Data Analysis in Psychology (4) or STAT 270 Introduction to Probability and Statistics (3) (...)

PSYC Major, PSYC Major with ABA Concentration, PSYC Extended Minor

Admission Requirements

To be admitted to this program, students must complete

PSYC 100 Introduction to Psychology I (3)

PSYC 102 Introduction to Psychology II (3)

PSYC 210 Introduction to Data Analysis in Psychology (4) **or STAT 270 Introduction to Probability and Statistics (3)**

(...)

Lower Division Requirements

Students complete all of

PSYC 100 - Introduction to Psychology I (3)

PSYC 102 - Introduction to Psychology II (3)

PSYC 201W - Introduction to Research Methods in Psychology (4) *

PSYC 210 - Introduction to Data Analysis in Psychology (4) **or STAT 270 Introduction to Probability and Statistics (3)**

(...)

GSWS PSYC JMA

Admission Requirements

To be admitted to this Psychology portion of this plan, students must complete

PSYC 100 Introduction to Psychology I (3)

PSYC 102 Introduction to Psychology II (3)

PSYC 210 Introduction to Data Analysis in Psychology (4) **or STAT 270 Introduction to Probability and Statistics (3)**

(...)

Lower Division Requirements

Students complete all of

PSYC 100 - Introduction to Psychology I (3)

PSYC 102 - Introduction to Psychology II (3)

PSYC 201W - Introduction to Research Methods in Psychology (4) *

PSYC 210 - Introduction to Data Analysis in Psychology (4) **or STAT 270 Introduction to Probability and Statistics (3)**

(...)

CRIM PSYC JMA

Psychology declaration: students must complete

PSYC 100 - Introduction to Psychology I (3)

PSYC 102 - Introduction to Psychology II (3)

PSYC 210 - Introduction to Data Analysis in Psychology (4) **or STAT 270 Introduction to Probability and Statistics (3)**

(...)

Lower Division Requirements

Students complete all of

PSYC 100 - Introduction to Psychology I (3)

PSYC 102 - Introduction to Psychology II (3)

PSYC 201W - Introduction to Research Methods in Psychology (4) *

PSYC 210 - Introduction to Data Analysis in Psychology (4) **or STAT 270 Introduction to Probability and Statistics (3)**

BUS PSYC JMA

Admission Requirements - Psychology

To be admitted to the Psychology portion of this program, students must complete

PSYC 100 - Introduction to Psychology I (3)

PSYC 102 - Introduction to Psychology II (3)

PSYC 201W - Introduction to Research Methods in Psychology (4) with a grade of C (2.0) or better

and complete

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

STAT 270 Introduction to Probability and Statistics (3) or

BUS 232 - Data and Decisions I (4) and BUS 336 - Data and Decisions II (4) with a grade of C- (1.67) or better

(...)

Psychology Requirements

LOWER DIVISION REQUIREMENTS

Students complete all of

PSYC 100 - Introduction to Psychology I (3)

PSYC 102 - Introduction to Psychology II (3)

PSYC 201W - Introduction to Research Methods in Psychology (4) *

PSYC 210 - Introduction to Data Analysis in Psychology (4) + **or STAT 270 Introduction to Probability and Statistics (3)** +

(...)

PSYC Honours and PSYC Honours with ABA Concentration

Program Requirements

Students Complete 120 Units, as specified below.

Lower Division Requirements

Students complete all of

PSYC 100 - Introduction to Psychology I (3)

PSYC 102 - Introduction to Psychology II (3)

PSYC 201W - Introduction to Research Methods in Psychology (4) *

PSYC 210 - Introduction to Data Analysis in Psychology (4) * **or STAT 270 Introduction to Probability and Statistics (3)**

(...)

Calendar Entry Change

Anthropology and Archaeology Joint Major, Bachelor of Arts

Rationale for change:

This is a minor wording change to clarify the existing requirements.

Effective term and year:

Fall 2021

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

Anthropology and Archaeology 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**.

Program Requirements

[No changes]

Upper Division Anthropology Requirements

Students complete ~~a total of at least 20 units of anthropology courses, including all of a~~
minimum of 20 units, including both of

SA 301 - Contemporary Ethnography (A) (4)

SA 356W - Ethnography and Qualitative Methods (SA) (4)

and three upper division SA electives. All of these must be designated (A). One of these must be a 400 division course.

Name of Program or Name of Faculty German Studies Certificate
Rationale for change: The explanation what courses can be chosen was not clear. Further, now that the German Certificate is housed in the WLL Department, it is not overseen by the LTI Director but by the WLL Department Chair or Undergraduate Curriculum Chair.
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: German 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**.

German Studies CERTIFICATE Course Requirements This program requires a minimum of 21 units as stipulated below. It is the student’s responsibility to ensure that all prerequisites are met. Students must complete: 1. Four German language courses including all of from the following list: GERM 102 100 – Introductory German I (3) GERM 103 110 – Introductory German II (3) GERM 201 200 – Intermediate German I (3) GERM 210 – Intermediate German II (3) GERM 300 – Advanced German: Composition and Conversation (3)

2. ~~and~~ A minimum of three courses selected from the following list, or other courses with the approval of the ~~Language Training Institute~~ **Undergraduate Curriculum Chair or Department Chair**.

ENGL 392 - Studies in World Literatures in English (4) *
CA 137 - The History and Aesthetics of Cinema II (3) *
CA 316 - Intermediate Selected Topics in Cinema Studies (4) *
HIST 224 - Europe from the French Revolution to the First World War (3)
HIST 225 - 20th Century Europe (3)
HIST 332 - Politics and Culture in Modern Germany (4)
HIST 338 - World War II (4)
HUM 240 - Studies in Modern Culture (3) *
HUM 307 - Carolingian Civilization (4)
HUM 340 - Great Cities in Their Time (4) *
HUM 350 - Special Topics: Great Figures in the Humanistic Tradition (4) *
PHIL 280 - Introduction to Existentialism (3)
PHIL 451W - Advanced Topics in the History of Philosophy (4)
POL 348 - Theories of War, Peace and Conflict Resolution (4) *

* may be used if the subject is primarily Germany and its people (literature, film and/or video, great historical figures, etc.); requires ~~program director's~~ approval **of the Undergraduate Curriculum Chair or Department Chair**.

Transfer Credit

A maximum of six transfer credit units of 100 division language courses (only GERM 100 or 102 and **GERM 110 or 103**) may be used toward this certificate. **Such requests must be submitted to the departmental advisor.**

Course Challenge Credit

A maximum of six units of 100 division language courses (only GERM 100 or 102 and **GERM 110 or 103**) may be challenged for credit for this certificate. **Such requests must be submitted to the departmental advisor.**

Name of Program or Name of Faculty World Literature Honours
Rationale for change: The current description of the course requirements, application process, language requirements, and relevant courses outside WLL for the World Literature Honours degree program are inconsistent and lack clarity. These issues need to be corrected, and the overall description updated to reflect the new departmental status of <i>World Languages and Literatures</i>. Note that the unit count of WL 301, listed under requirements below, has been adjusted in accordance with our request, coincidental with this form, where we ask that it change from 3 to 4 units.
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: World Literature 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**.

World Literature Honours

BACHELOR OF ARTS

This program, intended for outstanding students who wish to study world literature beyond the major program's course work, requires concentrated research and writing on a topic that has been approved by the ~~program~~ **department**.

Entry to the program is competitive, and by application. Only a small number of students are admitted each year. Along with the requirements listed below, the core of the program is the honours essay, produced across two courses occurring in subsequent terms: WL 480 (4) in which the student completes and formalizes their research, and WL 490 (4) in which the actual essay is composed and edited.

The program's language of instruction is English. Students are encouraged to study languages and to study abroad.

For further information, visit <http://www.sfu.ca/worldlit.html>
<https://www.sfu.ca/wll/programs/honours.html>

Admission Requirements

~~Entry to the program is competitive, and by application. Only a small number of students are admitted each year.~~

~~To apply, students complete the same lower division requirements as the major program, WL 300, 301W and two other 300 division WL courses, and six units of language study in either the lower or upper division (see below).~~

Interested students draw up a one-page statement of their prospective honours project in consultation with a World Languages and Literatures faculty member who has the relevant expertise. This statement needs to be received well in advance of the intended start of the program – the statement will then be forwarded to the departmental chair for approval.

Applicants must have a minimum 3.67 grade point average (GPA) in World Literature courses, and a minimum 3.33 cumulative grade point average (CGPA).

Language Requirements

~~Honours students complete 12 units of language study, which may include courses completed during study abroad or field schools, or an approved equivalent.~~

~~Honours students who intend to apply for graduate school are also encouraged to complete a minimum of three units of literature in a language other than English. This may be fulfilled by completing a WL directed reading course (WL 450) or by completing an upper division course in another Simon Fraser University department. With prior approval, students can complete an upper division course at another university.~~

Program Requirements

Students complete 120 units, as specified below: , **including 12 units of language study, which may include courses completed during study abroad or field schools, or an approved equivalent. Ideally, students would complete 6 units of language study alongside their lower division requirements, and 6 units of language study alongside their upper division requirements. The 12 units of language study may include any combination of lower or upper division language courses. Students with demonstrated competence in languages other than English may have this language requirement reduced or waived at the discretion of the department chair. With prior approval, students can also complete an upper division course at another university.**

Lower Division Requirements

Students complete a total of ~~21~~ **18** units, including

WL 100 - What is World Literature? (3)

one 100-level WL Writing course

and

WL 200 - How to Do Things with World Literature (3)

plus ~~12~~ **9** additional lower division WL units, at least 6 of which must be taken at the 200 level

~~*Students may count one 2nd year language course (3 units) toward their lower division WL units.~~

Upper Division Requirements

Students complete a minimum total of 48 upper division WL units, including both of

WL 300 - How Ideas Travel (4)

WL 301W - Writing and Research ~~(3)~~ **(4)**

plus ~~33~~ **32** additional upper division WL units, of which at least 8 must be taken at the 400 level

plus both of

WL 480 - Research Seminar for Honours Essay (4)

WL 490 - Honours Graduate Essay (4)

Relevant Topic Courses

With prior approval, students may complete a maximum of three lower and eight upper division units of relevant topic courses from outside the ~~World Literature Program~~ **Department of World Languages and Literatures** (courses offered at Simon Fraser University or our field schools and exchanges) by submitting the course description to the world **languages and literatures** advisor. The following pre-approved courses are appropriate.

~~ENGL 207 - Twentieth Century Literatures in English (3)~~

~~ENGL 392 - Studies in World Literatures in English (4)~~

~~ENGL 492W - Topics in World Literatures in English (4)~~

~~CA 341 - World Music (3)~~

~~FREN 342 - Francophone World Literature in Translation (3)~~

~~HUM 309 - Literatures and the Arts Across Cultures (4)~~

ENGL 209 - Race, Borders, Empire (3)

ENGL 361 - Diaspora Literatures in English (4)

ENGL 362 - Transnational Literatures in English (4)

ENGL 439W - Seminar in World Literatures in English (4)

FREN 330 - Francophone World (3)

FREN 342 - Francophone World Literature in Translation (3)

HUM 203 - Great Texts: Asian Thought and Literature (3)

HUM 309 - Literatures and the Arts Across Cultures (4)

HUM 318 - Heroines in Greece & Beyond: Political Representations of Women (4)

HUM 382 - Selected Topics in Asian Art and Cultures (4)

INDG 110W - International Indigenous Lifewriting (4)

Study Abroad

Students are encouraged to study abroad, through field schools or exchanges. World literature major students may complete up to 15 upper division units at other universities or other universities' field schools and exchanges with prior approval. Submit the relevant course description to the ~~world literature~~ **World Languages and Literatures** advisor well in advance of the course.

Name of Program or Name of Faculty World Literature and History Joint Major
Rationale for change: The WLL Department is changing the number of units in WL 301 from 3 to 4 units. Given that WL 301 is a required course for our majors and joint majors degrees, we must make changes to the course unit count and that of the upper division requirements for our joint major programs.
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: World Literature and History 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**.

Upper Division Requirements <i>WORLD LITERATURE</i> Students complete a minimum total of 20 upper division WL units including both of WL 300 - How Ideas Travel (4) WL 301W - Writing and Research (3) (4) plus 13 12 additional upper division WL units, of which at least 4 must be taken at the 400 level
--

Name of Program or Name of Faculty World Literature and International Studies Joint Major
Rationale for change: The WLL Department is changing the number of units in WL 301 from 3 to 4 units. Given that WL 301 is a required course for our majors and joint majors degrees, we must make changes to the course unit count and that of the upper division requirements for our joint major programs.
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: World Literature and International 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**.

Upper Division Requirements <i>WORLD LITERATURE</i> Students complete a minimum total of 20 upper division WL units including both of WL 300 - How Ideas Travel (4) WL 301W - Writing and Research (3) (4) plus 13 12 additional upper division WL units, of which at least 4 must be taken at the 400 level



Name of Program or Name of Faculty

World Literature Major

Rationale for change:

The WLL Department is changing the number of units in WL 301 from 3 to 4 units. Given that WL 301 is a required course for our majors and joint majors degrees, we must make changes to the course unit count and that of the upper division requirements for these programs – allowing for multiples of 4 units.

Effective term and year:

Fall 2021

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

None

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 minimum total of ~~30~~ **32** upper division WL units including both of

WL 300 - How Ideas Travel (4)

WL 301W - Writing and Research ~~(3)~~ **(4)**

plus ~~23~~ **24** additional upper division WL units, of which at least 8 must be taken at the 400 level

Name of Program or Name of Faculty World Literature Minor
Rationale for change: The WLL Department is changing the number of units in WL 301 from 3 to 4 units. Given that all of our upper division courses have 4 units (except for the 3 units of WL 340 Directed Reading), we must make changes to the upper division requirements for the WL minor as given in the Calendar – these must now require multiples of 4 units: 16 units.
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: World Literature 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 a minimum total of 15 16 upper division units in WL courses, of which at least 4 must be taken at the 400 level.



Name of Program or Name of Faculty

World Literature Extended Minor

Rationale for change:

The WLL Department is changing the number of units in WL 301 from 3 to 4 units. Given that all of our upper division courses have 4 units (except for the 3 units of WL 340 Directed Reading), we must make changes to the upper division requirements for the WL Extended Minor as given in the Calendar – these must now feature multiples of 4 units: 16 units.

Effective term and year:

Fall 2021

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

World Literature 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**.

Upper Division Requirements

Students complete **a minimum total of 15- 16** upper division units in WL courses, of which at least 4 must be taken at the 400 level.



Calendar Entry Change

Name of Program or Name of Faculty

Rationale for change:

The Marketing area and instructors have reviewed course content and workload and determined that BUS 345 should be a 3-unit course.

Effective term and year: Fall 2021

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

Business Analytics and Decision Making 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 must complete a minimum of ~~27~~**26** units, comprised of the following courses from across three concentrations.

Students complete all of

BUS 336 - Data and Decisions II (4)
BUS 362 - Business Process Analysis (4)
BUS 445 - Customer Analytics (3)
BUS 462 - Business Analytics (3)
BUS 464 - Business Data Management (3)

and one of

BUS 345 - Marketing Research ~~(4)~~**(3)**
BUS 440 - Simulation in Management Decision-making (4)

and one of



BUS 437 - Decision Analysis in Business (3)

BUS 441 - Web Analytics (3)

and the capstone course

BUS 439 - Analytics Project (3) *

* BUS 439 can only be taken once all the prerequisite courses have been completed with a grade of C- (C minus) or higher.



Calendar Entry Change

Name of Program or Name of Faculty

Rationale for change:

Senate made changes for Spring 2021 for Course Deletion and updated descriptions in APR and indicated MSE 411W is deleted per [S.20-64](#) effective Spring 2021. Innovation and Entrepreneurship Certificate was impacted by this course change. In this certificate, MSE 411W used to be under the “one of” requirement together with MSE 410, meaning students would need to take both MSE 410 and 411W to meet this “one of” requirement. However, with MSE 411W being deleted effective Spring 2021, the Calendar language was left only with MSE 410.

In consultation with I&E and MSE, the MSE 411 (without the ‘W’ designation) covers all the design topics required for the other half of the capstone experience for the Innovation and Entrepreneurship Certificate. This coincides with the recommendation from Senate & Academic Services.

Effective term and year: Fall 2021

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

Innovation and Entrepreneurship 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**.

Students must complete the following, including foundational business courses, a capstone course, and additional coursework from a variety of disciplines.

Core Courses

Students will complete all of

BUS 238 - Introduction to Entrepreneurship and Innovation (3)

BUS 314 - Resourcing New Ventures (3)

BUS 338 - Foundations of Innovation (3)

BUS 361 - Project Management (3)



And one of*

BUS 477 - Startup Experience (4)

ENV 495 - Environmental Capstone (4) **

HSCI 495 - Applied Health Science Project (4)

IAT 430 - Business of Design III: Refinement and Production (3) ^ and BUS 476 - Business of Design IV - Promotion, Packaging and Launch - Launching a Design-Led Business (4) ^

IAT 499 - Graduation Project (6)

MSE 410 - Capstone Design Technical Project I (3) ^^ **and MSE 411 – Capstone Design Technical Project II (3) ^^**

Calendar Entry Change Beedie School of Business

Rationale for change:

In response to notification of copy right infringement the Business of Design was changed on the website to Make Change Studio. This program modification reflects those updates that were already made.

Effective term and year: Fall 2021

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

Innovation and Entrepreneurship 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**.

Elective Coursework

Students# will complete two of*

BISC 373 - Brewing Science (3) or BISC 374 - Brewing Science with Lab (3)
 BUS 291 - Selected Topics in Business Administration (3) ***
 BUS 292 - Selected Topics in Business Administration (3) ***
 BUS 339 - Business of Design II - Iteration and Prototyping (4)
 BUS 406 - Startup Accelerator (3)
 BUS 443 - New Product Development and Design (3)
 BUS 450 - Managing Emerging Opportunities (3)
 BUS 453 - Sustainable Innovation (3)
 BUS 490 - Selected Topics in Business Administration (1) ***
 BUS 491 - Selected Topics in Business Administration (2) ***
 BUS 492 - Selected Topics in Business Administration (3) ***
 BUS 493 - Selected Topics in Business Administration (3) ***
 BUS 494 - Selected Topics in Business Administration (3) ***
 BUS 495 - Selected Topics in Business Administration (4) ***
 BUS 496 - Selected Topics in Business Administration (5) ***
 CA 381 - Thriving as a Cultural Entrepreneur (3)
 CMNS 425 - Applied Communication for Social Issues (4)
 CMPT 120 - Introduction to Computing Science and Programming I (3)

CMPT 320 - Social Implications - Computerized Society (3)
HSCI 130 - Foundations of Health Science (4)
HSCI 305 - The Canadian Health System (3)
HSCI 312 - Health Promotion: Individuals and Communities (3)
IAT 330 - Business of Design I: Introduction (3)
IAT 333 - Interaction Design Methods (3)
IAT 431 - Speculative Design (3)
IAT 481 - Special Topics in Interactive Arts and Technology (Science) (3)
MSE 110 - Mechatronics Design I (3) or MSE 111 - Mechatronics for non-Engineers (3)
POL 150 - Science, Policy, and Innovation (3)
POL 457W - Technology and Innovation Policy (4)
PUB 101 - Publication of Self in Everyday Life (3)
PUB 201 - The Publication of Professional Self (3)
PUB 212 - Public Relations and Public Engagement (3)
PUB 456 - Institutional and International Event Planning and Management (4)

Students completing a Bachelor of Business Administration may not use business courses to meet the requirements of this section.

* Substitutions with appropriate course content may be possible with permission from the Beedie School of Business.

** ENV 495 will only count toward this certificate when offered as part of Change Lab. Students are to consult with a Faculty of Environment advisor before enrolling in this course.

*** When offered as a selected topics course in Innovation and Entrepreneurship.

~~^ Business of Design~~ **Make Change Studio**

^^ Technology Entrepreneurship @ SFU



Name of Program or Name of Faculty Dialogue Minor
Rationale for change: Add a field placement course in Dialogue to the program
Effective term and year: Fall 2021
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**.

[...] Upper Division Requirements [...] two of <u>CMNS 332</u> - Communication and Rhetoric (4) <u>CMNS 347</u> - Communication in Conflict and Intervention (4) <u>CMNS 425</u> - Applied Communication for Social Issues (4) <u>CMNS 432</u> - Political Communication, Public Opinion and Political Marketing (4) <u>CMNS 437</u> - Media Democratization: From Critique to Transformation (4) <u>CMNS 447</u> - Negotiation and Dialogue as Communication (4) <u>CMNS 460</u> - Seminar in Dialogue and Public Issues (4) <u>CMNS 461</u> - Field Placement in Dialogue (3) <u>DIAL 392W</u> - Semester: Final Project (5) or DIAL 395 – Semester In (Final Project) (5) DIAL 461 – Field Placement in Dialogue (3) [...]

Name of Program or Name of Faculty Communication Second Degree Program
Rationale for change: The CMNS Second Degree program has updated the residency requirement to align with the university policy.
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: Communication Second Degree

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**.

[...]

Residency Requirements and Transfer Credit

- At least half of the program's total units must be earned through Simon Fraser University study.
- At least two thirds of the program's total upper division units must be earned through Simon Fraser University study.

The School of Communication requires that a minimum of ~~16~~ **20** upper division CMNS units (~~four~~ **five** CMNS upper division courses, including at least one 400 division CMNS course) must be taken at SFU. Directed study and field placement courses may not be used to meet this requirement.

[...]

Name of Program or Name of Faculty FCAT
Rationale for change: PUB 480 - Special Topics Journalism as a Publishing Problem has been given its own course number. Senate document S.19-123. It is now PUB 458 - Journalism as a Publishing Problem (4)
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: Creative Technologies in Digital Journalism

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**.

Digital Journalism Courses (...)
PUB 480 – Special Topics in Publishing (4)*
<i>*PUB 480 is a special topics course. It is applicable as an option only when offered as PUB 480 Journalism as a Publishing Problem.</i>
PUB 458 - Journalism as a Publishing Problem (4) (...)



Name of Program or Name of Faculty Biomedical Physiology and Kinesiology
Rationale for change: BPK 409 – Wearable Technology and Human Physiology (3) was designed as a Special Temporary Topics course to provide a physiology lab to our Major and honours students. It was designed to replace BPK 407 which is required for our majors but is not able to run remotely or face to face. BPK 409 will provide an interesting ongoing upper division lab option for Kinesiology Major and Honours students.
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: Kinesiology Major Kinesiology 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 Core .. and one of* BPK 301 - Biomechanics Laboratory (3) BPK 407 - Human Physiology Laboratory (3) BPK 409 – Wearable Technology and Human Physiology (3) * Students can count the other course(s) as BPK electives. complete both BPK 301 and 407, and count one as an elective.

Name of Program or Name of Faculty
Biomedical Physiology and Kinesiology
Rationale for change: The following changes emerged from the BPK curriculum mapping project over the last few years. To achieve appropriate breadth of Foundational Knowledge Goals (1-2) and provide appropriate pre-requisites for the upper division courses in the Kinesiology Minor, BPK 110 – Human Nutrition: Current Issues, BPK 140 – Contemporary Health Issues, and BPK 143 – Exercise: Health and Performance need to be added to the required list. To achieve the breadth and depth of Foundational Knowledge Program Goals (1 and 2), both BPK 325 – Basic Human Anatomy and BPK 342 – Active Health are required. The Upper Division list of options needs to be refined to ensure that all listed courses directly address aspects of the Foundational Knowledge Goals (1-3), Application of Knowledge Goals 4-5) or Integration of Knowledge Goal (6), this will ensure these goals are achieved beyond the introductory level.
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: Kinesiology 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**.

... Program Requirements Lower Division Requirements Students complete BPK 110 - Human Nutrition: Current Issues (3) BPK 140 - Contemporary Health Issues (3) BPK 142 - Introduction to Biomedical Physiology and Kinesiology (3) BPK 143 - Exercise: Health and Performance (3) and one of BPK 105 - Fundamentals of Human Structure and Function (3) BPK 205 - Introduction to Human Physiology (3) BPK 208 - Introduction to Physiological Systems (3)

~~and three of the following, one of which must be a 200 division course~~

~~BPK 110 - Human Nutrition: Current Issues (3)~~

~~BPK 140 - Contemporary Health Issues (3)~~

~~BPK 143 - Exercise: Health and Performance (3)~~

~~BPK 180W - Introduction to Ergonomics (3)~~

and one of

BPK 201 - Biomechanics (3)

BPK 207 - Sensorimotor Control and Learning (3)

BPK 241 - Sports Injuries - Prevention and Rehabilitation (3)

Upper Division Requirements

~~One of~~

Students Complete

BPK 325 - Basic Human Anatomy (3) +

BPK 342 - Active Health (3) +

and ~~four~~ **three** of (note that some classes may require additional prerequisites)

~~BPK 301 - Biomechanics Laboratory (3)~~

BPK 303 - Kinanthropometry (3)

BPK 304W - Inquiry and Measurement in Biomedical Physiology and Kinesiology (3)

~~BPK 305 - Human Physiology I (3)~~

~~BPK 306 - Human Physiology II (3)~~

BPK 310 - Exercise/Work Physiology (3)

BPK 311 - Applied Human Nutrition (3)

BPK 312 - Nutrition for Fitness and Sport (3)

~~BPK 325 - Basic Human Anatomy (3) +~~

BPK 340 - Active Health: Behavior and Promotion (3)

~~BPK 342 - Active Health (3) +~~

BPK 375 - Human Growth and Development (3)

~~BPK 381 - Psychology of Work (3)~~

~~BPK 402 - Mechanical Behavior of Biological Tissues (3)~~

BPK 420 - Selected Topics in Biomedical Physiology and Kinesiology I (3)

BPK 421 - Selected Topics in Biomedical Physiology and Kinesiology II (3)
 BPK 422 - Selected Topics in Biomedical Physiology and Kinesiology III (3)
 BPK 423 - Selected Topics in Biomedical Physiology and Kinesiology IV (3)
~~BPK 431 - Integrative Cancer Biology (3)~~
 GERO 407 - Nutrition and Aging (3)
 HSCI 312 - Health Promotion: Individuals and Communities (3)

There is a maximum number of allowable transferable units that count toward the minor program from any other institution, including the Open Learning Agency.

The graduation GPA of 2.0 must be obtained both on the overall course work (CGPA) as well as on the upper division subset of that work (UDGPA).

In addition, the program GPA of 2.0 must be obtained on the overall course work (CGPA) as well as on the upper division subset of that work (UDGPA) in the program area.

~~+ Students can complete both BPK 325 and 342 and count one as an elective below.~~

...

Calendar Entry Change

Name of Program: Applied Mathematics Major Program

Name of Faculty: Science

Rationale for change:

- We are adding a Philosophy class “Philosophy of mathematics” as an upper division option to give more breadth and an additional W-option.
- A new physics is being added to the lower division breadth requirement
- The general science requirements are being rationalized across our degrees to make it easier for students to switch programs within Math.

Effective term and year:

Fall 2021

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

- Applied Mathematics Majors Program

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 120 units, as specified below.

Lower Division Requirements

Students complete the following:

both of

CMPT 120 - Introduction to Computing Science and Programming I (3)

CMPT 129 - Introduction to Computing Science and Programming for Mathematics and Statistics (3)

(Students transferring into a math program should contact the math undergraduate advisor if they have already completed equivalent courses.)

or both of

CMPT 130 - Introduction to Computer Programming I (3)

CMPT 135 - Introduction to Computer Programming II (3)

and all of

MACM 203 - Computing with Linear Algebra (2) +

MACM 204 - Computing with Calculus (2) +

MATH 242 - Introduction to Analysis I (3)

MATH 251 - Calculus III (3)

MATH 252 - Vector Calculus (3)

MATH 260 - Introduction to Ordinary Differential Equations (3)

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

MATH 152 - Calculus II (3) *

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

MATH 158 - Calculus II for the Social Sciences (3) **

and one of

MATH 232 - Applied Linear Algebra (3) **

MATH 240 - Algebra I: Linear Algebra (3)

~~and one of~~

~~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~~

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

~~PHYS 126 - Electricity, Magnetism and Light (3)~~

~~PHYS 141 - Studio Physics - Optics, Electricity and Magnetism (4)~~

and at least one of

CMPT 225 - Data Structures and Programming (3)

ENSC 220 - Electric Circuits I (4)

MACM 201 - Discrete Mathematics II (3)

MSE 250 - Electric Circuits (4)

PHYS 211 - Intermediate Mechanics (3)

PHYS 285 - Quantum I (3)

STAT 285 - Intermediate Probability and Statistics (3)

and an additional six units from the faculty of science outside of the departments of Mathematics and Statistics and Actuarial Sciences and excluding PHYS 100, BISC 100 and CHEM 110/111.

+ The following substitutions are also permitted.

They may not also be used to satisfy the upper division requirements below.

MACM 409 - Numerical Linear Algebra: Algorithms, Implementation and Applications (3) for MACM 203.

MACM 401 - Introduction to Computer Algebra (3) for MACM 204.

MACM 442 - Cryptography (3) for MACM 204.

* strongly recommended

** with a B grade or better

Upper Division Requirements

Students complete a minimum of 30 units, including all of

MACM 316 - Numerical Analysis I (3)

MATH 314 - Introduction to Fourier Methods and Partial Differential Equations (3)

MATH 320 - Introduction to Analysis II (3)

MATH 322 - Complex Variables (3)

MATH 418 - Partial Differential Equations (3)

and at least one of

MATH 426 - Probability (3)

MATH 462 - Fluid Dynamics (3)

MATH 467 - Dynamical Systems (3)

MATH 475 - Mathematical Topics in Data Science (3)

and at least two of

MACM 401 - Introduction to Computer Algebra (3)
MACM 409 - Numerical Linear Algebra: Algorithms, Implementation and Applications (3)
MACM 416 - Numerical Analysis II (3)
MATH 308 - Linear Optimization (3)
MATH 309 - Continuous Optimization (3)
MATH 338 - Advanced Linear Algebra (3)
MATH 343 - Applied Discrete Mathematics (3)
MATH 345 - Introduction to Graph Theory (3)
MATH 348 - Introduction to Probabilistic Models (3)
MATH 419 - Linear Analysis (3)
MATH 424 - Complex Analysis (3)
MATH 425 - Real Analysis (3)
MATH 426 - Probability (3)
MATH 462 - Fluid Dynamics (3)
MATH 467 - Dynamical Systems (3)
MATH 470 - Variational Calculus (3)
MATH 475 - Mathematical Topics in Data Science (3)
MATH 495 - Selected Topics in Applied Mathematics (3)
PHIL 345W -Philosophy of Mathematics (3)
PHYS 413 - Advanced Mechanics (3)
STAT 380 - Introduction to Stochastic Processes (3)

and one additional upper division MATH or MACM course, or any pre-approved quantitative upper division course offered by the Faculties of Applied Sciences, Arts and Social Sciences, Beedie School of Business or Faculty of 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 completing 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 division.

NOTE: SFU students accepted in the accelerated master's within the Department of Mathematics may apply a maximum of 10 graduate course units, taken while completing the bachelor's degree, towards the upper division electives of the bachelor's program and the requirements of the master's degree. For more information go to: <https://www.sfu.ca/gradstudies/apply/programs/accelerated-masters.html>.

Other Requirements

At least 44 of the units 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 completed at the University. See [Grade Point Averages Needed for Graduation](#).

Calendar Entry Change

Name of Program: Applied Mathematics Honours Program

Name of Faculty: Science

Rationale for changes:

- Previously, an upper division course was moved to lower division however, the number of units required wasn't adjusted.
- We are adding a Philosophy class "Philosophy of mathematics" as an upper division option to give more breadth.
- A new physics is being added to the lower division breadth requirement
- The general science requirements are being rationalized across our degrees to make it easier for students to switch programs within Math.

Effective term and year:

Fall 2021

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

- Applied Mathematics Honours Programs

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 120 units, as specified below.

Lower Division Requirements

Students complete 40 units, including either

both of

CMPT 120 - Introduction to Computing Science and Programming I (3)

CMPT 129 - Introduction to Computing Science and Programming for Mathematics and Statistics (3)

(Students transferring into a math program should contact the math undergraduate advisor if they have already completed equivalent courses.)

or both of

CMPT 130 - Introduction to Computer Programming I (3)

CMPT 135 - Introduction to Computer Programming II (3)

and all of

MACM 203 - Computing with Linear Algebra (2) +

MACM 204 - Computing with Calculus (2) +

MATH 242 - Introduction to Analysis I (3)

MATH 251 - Calculus III (3)

MATH 252 - Vector Calculus (3)

MATH 260 - Introduction to Ordinary Differential Equations (3)

STAT 270 - Introduction to Probability and Statistics (3)

~~and one of~~

~~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~~

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

~~PHYS 126 - Electricity, Magnetism and Light (3)~~

~~PHYS 141 - Studio Physics - Optics, Electricity and Magnetism (4)~~

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

MATH 152 - Calculus II (3) *

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

MATH 158 - Calculus II for the Social Sciences (3) **

and one of

MATH 232 - Applied Linear Algebra (3) **

MATH 240 - Algebra I: Linear Algebra (3) *

and at least one of

CMPT 225 - Data Structures and Programming (3)

ENSC 220 - Electric Circuits I (4)

MACM 201 - Discrete Mathematics II (3)

MSE 250 - Electric Circuits (4)

PHYS 211 - Intermediate Mechanics (3)

PHYS 285 - Quantum I (3)

STAT 285 - Intermediate Probability and Statistics (3)

and an additional six units from the faculty of science outside of the departments of Mathematics and Statistics and Actuarial Sciences and excluding PHYS 100, BISC 100 and CHEM 110/111.

* strongly recommended

** with a B grade or better

+ The following substitutions are also permitted. They may not be used to satisfy the upper division requirements below. MACM 409 - Numerical Linear Algebra: Algorithms, Implementation and Applications (3) for MACM 203. MACM 401 - Introduction to Computer Algebra (3) for MACM 204. MACM 442 - Cryptography (3) for MACM 204.

Upper Division Requirements

Students complete 48 units, including all of

MACM 316 - Numerical Analysis I (3)

MATH 314 - Introduction to Fourier Methods and Partial Differential Equations (3)

MATH 320 - Introduction to Analysis II (3)

MATH 322 - Complex Variables (3)

MATH 418 - Partial Differential Equations (3)

MATH 498 - Communication and Research Skills in the Mathematical Sciences (1)

MATH 499W - Honours Research Project (5)

and at least one of

MATH 308 - Linear Optimization (3)

MATH 309 - Continuous Optimization (3)

and at least two of

MACM 409 - Numerical Linear Algebra: Algorithms, Implementation and Applications (3)

MACM 416 - Numerical Analysis II (3)

MATH 426 - Probability (3)

MATH 462 - Fluid Dynamics (3)

MATH 467 - Dynamical Systems (3)

MATH 475 - Mathematical Topics in Data Science (3)

MATH 495 - Selected Topics in Applied Mathematics (3)

and at least ~~fifteen~~ **18** more upper division units, of which at least three must be chosen from the 400 level. These ~~fifteen~~ **18** units may be selected from any **upper division** MATH or MACM courses or from

CMPT 464 - Geometric Modelling in Computer Graphics (3)

PHYS 395 - Computational Physics (3)

PHYS 413 - Advanced Mechanics (3)

STAT 380 - Introduction to Stochastic Processes (3)

PHIL 345W -Philosophy of Mathematics (3)

NOTE: SFU students accepted in the accelerated master's within the Department of Mathematics may apply a maximum of 10 graduate course units, taken while completing the bachelor's degree, towards the upper division electives of the bachelor's program and the requirements of the master's degree. For more information go to: <https://www.sfu.ca/gradstudies/apply/programs/accelerated-masters.html>.

Other Requirements

At least 60 of the units must be at the upper division. A cumulative grade point average (CGPA) of at least 3.00 and an upper division grade point average of at least 3.00 are required. These averages are computed on all courses completed at the University. If both averages are at least 3.50, the designation 'first class' applies.

Calendar Entry Change

Name of Program: Mathematics Major Program

Name of Faculty: Science

Rationale for change:

- We are adding a Philosophy class “Philosophy of mathematics” as an upper division option to give more breadth and an additional W-option.
- The general science requirements are being rationalized across our degrees to make it easier for students to switch programs within Math.

Effective term and year:

Fall 2021

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

- Mathematics Program

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 120 units, as specified below.

Lower Division Requirements

Students complete

both of

CMPT 120 - Introduction to Computing Science and Programming I (3)

CMPT 129 - Introduction to Computing Science and Programming for Mathematics and Statistics (3)

(Students transferring into a math program should contact the math undergraduate advisor if they have already completed equivalent courses.)

or both of

CMPT 130 - Introduction to Computer Programming I (3)

CMPT 135 - Introduction to Computer Programming II (3)

and all of

MACM 101 - Discrete Mathematics I (3)
MACM 201 - Discrete Mathematics II (3)
MACM 203 - Computing with Linear Algebra (2) +
MACM 204 - Computing with Calculus (2) +
MATH 242 - Introduction to Analysis I (3)
MATH 251 - Calculus III (3)
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

MATH 152 - Calculus II (3) *
MATH 155 - Calculus II for the Biological Sciences (3) **
MATH 158 - Calculus II for the Social Sciences (3) **

and one of

MATH 232 - Applied Linear Algebra (3) **
MATH 240 - Algebra I: Linear Algebra (3) *

and an additional six units from the faculty of science outside of the departments of Mathematics and Statistics and Actuarial Sciences and excluding PHYS 100, BISC 100 and CHEM 110/111.

+ The following substitutions are also permitted. They may not also be used to satisfy the upper division requirements below.

MACM 409 - Numerical Linear Algebra: Algorithms, Implementation and Applications (3) for MACM 203.

MACM 401 - Introduction to Computer Algebra (3) for MACM 204.

MACM 442 - Cryptography (3) for MACM 204.

* strongly recommended

** with a B grade or better

Upper Division Requirements

Students complete a minimum of 30 program units, including the 15 outlined below.

MATH 340 - Algebra II: Rings and Fields (3)

and one of

MATH 343 - Applied Discrete Mathematics (3)

MATH 345 - Introduction to Graph Theory (3)

MATH 408 - Discrete Optimization (3)

MATH 443 - Combinatorial Theory (3)

MATH 447 - Coding Theory (3)

and one of

MATH 320 - Introduction to Analysis II (3)

MATH 322 - Complex Variables (3)

and one of

MATH 338 - Advanced Linear Algebra (3)

MATH 341 - Algebra III: Groups (3)

MATH 342 - Elementary Number Theory (3)

and one of

MACM 316 - Numerical Analysis I (3)

MATH 309 - Continuous Optimization (3)

MATH 348 - Introduction to Probabilistic Models (3)

MATH 360 - Modeling with Ordinary Differential Equations (3)

The remaining 15 units can be chosen from any upper division MATH or MACM course. Up to 6 of the 15 units can be chosen from the list below.

PHYS 413 - Advanced Mechanics (3)

PHIL 345W -Philosophy of Mathematics (3)

Any upper division STAT course except for STAT 302, STAT 305, STAT 310, STAT 311,

STAT 320, and STAT 403.

Within the 30 program units, students must complete 9 units of 400 level course work, as outlined below (excluding directed studies, job practicum, or honours essay courses):

6 units of MATH or MACM courses

3 units of courses from the list of PHYS and STAT courses above (within the 6 allowed units) or 3 units of any other MATH or MACM course.

NOTE: SFU students accepted in the accelerated master's within the Department of Mathematics may apply a maximum of 10 graduate course units, taken while completing the bachelor's degree, towards the upper division electives of the bachelor's program and the requirements of the master's degree. For more information go to: <https://www.sfu.ca/gradstudies/apply/programs/accelerated-masters.html>.

Elective Courses

In addition to the courses listed above, students should consult an academic advisor to plan the remaining required elective courses.

~~Students obtain at least six units in courses offered by the Faculty of Science outside the Department of Mathematics, and the Department of Statistics and Actuarial Science. The courses PHYS 100, BISC 100 and CHEM 110/111 cannot be used to satisfy this requirement.~~

Calendar Entry Change

Name of Program: Mathematics Honours Program

Name of Faculty: Science

Rationale for change:

- Previously, an upper division course was moved to lower division however, the number of units required wasn't adjusted.
- We are adding a Philosophy class "Philosophy of mathematics" as an upper division option to give more breadth.
- The general science requirements are being rationalized across our degrees to make it easier for students to switch programs within Math.

Effective term and year:

Fall 2021

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

- Mathematics Program

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 120 units, as specified below.

Lower Division Requirements

Students complete either

both of

CMPT 120 - Introduction to Computing Science and Programming I (3)

CMPT 129 - Introduction to Computing Science and Programming for Mathematics and Statistics (3)

(Students transferring into a math program should contact the math undergraduate advisor if they have already completed equivalent courses.)

or both of

CMPT 130 - Introduction to Computer Programming I (3)

CMPT 135 - Introduction to Computer Programming II (3)

and all of

MACM 101 - Discrete Mathematics I (3)

MACM 201 - Discrete Mathematics II (3)

MACM 203 - Computing with Linear Algebra (2) +

MACM 204 - Computing with Calculus (2) +

MATH 242 - Introduction to Analysis I (3)

MATH 251 - Calculus III (3)

MATH 252 - Vector Calculus (3)

MATH 260 - Introduction to Ordinary Differential Equations (3)

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

MATH 152 - Calculus II (3) *

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

MATH 158 - Calculus II for the Social Sciences (3) **

and one of

MATH 232 - Applied Linear Algebra (3) **

MATH 240 - Algebra I: Linear Algebra (3) *

and at least one of

CMPT 225 - Data Structures and Programming (3)

STAT 285 - Intermediate Probability and Statistics (3)

and an additional six units from the faculty of science outside of the departments of Mathematics and Statistics and Actuarial Sciences and excluding PHYS 100, BISC 100 and CHEM 110/111.

+The following substitutions are also permitted.

They may not be used to satisfy the upper division requirements below.

MACM 409 - Numerical Linear Algebra: Algorithms, Implementation and Applications (3) for MACM 203.

MACM 401 - Introduction to Computer Algebra (3) for MACM 204.

MACM 442 - Cryptography (3) for MACM 204.

* strongly recommended

** with a B grade or better

Upper Division Requirements

Students complete at least 48 units of which at least 15 must be at the 400 level. Students complete all of

MATH 320 - Introduction to Analysis II (3)

MATH 322 - Complex Variables (3)

MATH 340 - Algebra II: Rings and Fields (3)

MATH 341 - Algebra III: Groups (3)

MATH 498 - Communication and Research Skills in the Mathematical Sciences (1)

MATH 499W - Honours Research Project (5)

and one of

MATH 343 - Applied Discrete Mathematics (3)

MATH 345 - Introduction to Graph Theory (3)

MATH 408 - Discrete Optimization (3)

MATH 443 - Combinatorial Theory (3)

MATH 447 - Coding Theory (3)

In addition to the above core requirement of ~~24~~ 21 units, students must complete the requirements for at least one of the three concentrations below **and three additional units of upper division MATH or MACM courses.**

ALGEBRA AND NUMBER THEORY CONCENTRATION

Students complete at least 9 units from the following list of which at least 3 units must be at the 400 level.

MACM 401 - Introduction to Computer Algebra (3)

MACM 442 - Cryptography (3)

MATH 338 - Advanced Linear Algebra (3)
MATH 342 - Elementary Number Theory (3)
MATH 440 - Galois Theory (3)
MATH 441 - Commutative Algebra and Algebraic Geometry (3)
MATH 443 - Combinatorial Theory (3)
MATH 447 - Coding Theory (3)

ANALYSIS AND OPTIMIZATION CONCENTRATION

Students complete at least 9 units from the following list of which at least 3 units must be at the 400 level.

MACM 316 - Numerical Analysis I (3)
MATH 308 - Linear Optimization (3)
MATH 309 - Continuous Optimization (3)
MATH 314 - Introduction to Fourier Methods and Partial Differential Equations (3)
MATH 408 - Discrete Optimization (3)
MATH 418 - Partial Differential Equations (3)
MATH 419 - Linear Analysis (3)
MATH 425 - Real Analysis (3)
MATH 426 - Probability (3)

DISCRETE MATHEMATICS CONCENTRATION

Students complete

CMPT 225 - Data Structures and Programming (3)

and at least 9 units from the following list of which at least 3 units must be at the 400 level.

CMPT 307 - Data Structures and Algorithms (3)
CMPT 405 - Design and Analysis of Computing Algorithms (3)
MACM 442 - Cryptography (3)
MATH 343 - Applied Discrete Mathematics (3)
MATH 345 - Introduction to Graph Theory (3)
MATH 408 - Discrete Optimization (3)
MATH 443 - Combinatorial Theory (3)
MATH 445 - Graph Theory (3)
MATH 447 - Coding Theory (3)
MATH 448 - Network Flows (3)

ADDITIONAL ELECTIVES

Students must complete an additional 15 upper division units. These units can be any

upper division MATH or MACM courses or taken from the following list.

PHYS 413 - Advanced Mechanics (3)

STAT 380 - Introduction to Stochastic Processes (3)

PHIL 345W –Philosophy of Mathematics (3)

They may include additional courses from the three Concentrations. The total number of 400 level units must be at least 15.

NOTE: SFU students accepted in the accelerated master's within the Department of Mathematics may apply a maximum of 10 graduate course units, taken while completing the bachelor's degree, towards the upper division electives of the bachelor's program and the requirements of the master's degree. For more information go

to: <https://www.sfu.ca/gradstudies/apply/programs/accelerated-masters.html>.

Science Electives

~~Students obtain at least six units in courses offered by the Faculty of Science outside the Department of Mathematics, and the Department of Statistics and Actuarial Science. Courses PHYS 100, BISC 100 and CHEM 110/111 cannot be used to satisfy this requirement.~~

Other Requirements

Of the total 120 units required for the honours, at least 60 units must be from the upper division. A cumulative grade point average (CGPA) of at least 3.00 and an upper division grade point average of at least 3.00 are required. These averages are calculated on all courses completed at the University. If both averages are at least 3.50, the designation 'first class' applies.

Name of Program or Name of Faculty Science
Rationale for change: Special relativity is no longer covered in the required course PHYS 285. Given the importance of special relativity to physics, we seek to make the new course PHYS 313 Special Relativity, a required course in the Physics Majors Program.
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: Physics 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 ... PHYS 233 - Physics Laboratory III (3) PHYS 234 - Physics Laboratory IV (3) PHYS 255 - Vibrations and Waves (3) PHYS 285 - Introduction to Relativity and Quantum Mechanics Quantum I (3) ... Upper Division Requirements Complete all of PHYS 313 – Special Relativity (3) PHYS 321 - Intermediate Electricity and Magnetism (3) PHYS 332W - Advanced Physics Laboratory I (4) PHYS 344 - Thermal Physics (3) PHYS 385 - Quantum Mechanics I II (3) and a minimum of 15 12 other upper division physics units to satisfy the physics subject area requirements for a major.
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Name of Program or Name of Faculty Science
Rationale for change: Special relativity is no longer covered in the required course PHYS 285. Given the importance of special relativity to physics, we seek to make the new course PHYS 313 Special Relativity, a required course in the Physics Honours Program.
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: Physics 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 ... PHYS 234 - Physics Laboratory IV (3) PHYS 255 - Vibrations and Waves (3) PHYS 285 - Introduction to Relativity and Quantum Mechanics Quantum I (3) ... Upper Division Requirements Complete all of PHYS 313 – Special Relativity (3) PHYS 321 - Intermediate Electricity and Magnetism (3) PHYS 332W - Advanced Physics Laboratory I (4) PHYS 344 - Thermal Physics (3) PHYS 384 - Methods of Theoretical Physics I (3) PHYS 385 - Quantum Mechanics I II (3) PHYS 413 - Advanced Mechanics (3) PHYS 415 - Quantum Mechanics II I (3) PHYS 421 - Electromagnetic Waves (3) PHYS 431 - Advanced Physics Laboratory II (4) PHYS 432 - Undergraduate Honours Thesis (6) PHYS 445 - Statistical Physics (3)
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and ~~twelve~~ **9** additional upper division units in physics. MATH 462 can be used to meet this requirement. PHYS 346 cannot be used to meet this requirement.

Name of Program or Name of Faculty Science
Rationale for change: We seek to make the new course PHYS 313 Special Relativity, a recommended course in the Nuclear Science Minor Program given its importance in particle physics.
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: Nuclear Science 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**.

Program Requirements Students complete a total of 14 upper division units, chosen from CHEM 364 - Quantum Chemistry (3) CHEM 462 - Molecular Spectroscopy (3) NUSC 341 - Introduction to Radiochemistry (3) NUSC 342 - Introduction to Nuclear Science (3) NUSC 344 - Nucleosynthesis and Distribution of the Elements (3) NUSC 346 - Radiochemistry Laboratory (3) NUSC 444 - Special Topics in Nuclear Science (3) PHYS 313 – Special Relativity (3) PHYS 385 - Quantum Mechanics II (3) PHYS 485 - Particle Physics (3) and could include one of: CHEM 482 - Directed Study in Advanced Topics of Chemistry (3) NUSC 482 - Directed Study in Advanced Topics in Nuclear (3) And must include at least nine units of NUSC-designated courses.

Name of Program or Name of Faculty Science
Rationale for change: Special relativity is no longer covered in the required course PHYS 285. Given the importance of special relativity to physics, we seek to make the new course PHYS 313 Special Relativity, a required course in the Mathematical Physics Honours Program.
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: Mathematical Physics 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 ... PHYS 234 - Physics Laboratory IV (3) PHYS 255 - Vibrations and Waves (3) PHYS 285 - Introduction to Relativity and Quantum Mechanics Quantum I (3) STAT 270 - Introduction to Probability and Statistics (3) ... Complete all of MACM 316 - Numerical Analysis I (3) MATH 320 - Introduction to Analysis II (3) MATH 322 - Complex Variables (3) MATH 340 - Algebra II: Rings and Fields (3) MATH 418 - Partial Differential Equations (3) <u>PHYS 313 – Special Relativity (3)</u> PHYS 321 - Intermediate Electricity and Magnetism (3) PHYS 332W - Advanced Physics Laboratory I (4) PHYS 344 - Thermal Physics (3) PHYS 384 - Methods of Theoretical Physics I (3) PHYS 385 - Quantum Mechanics I (3) and either Option A or Option B
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OPTION A

Students who choose this option will complete **all of**

PHYS 413 - Advanced Mechanics (3)
PHYS 415 - Quantum ~~Mechanics II~~ **I** (3)
PHYS 421 - Electromagnetic Waves (3)
PHYS 445 - Statistical Physics (3)

and 6 units of UD MATH courses, including 3 units at the 400 level or higher

and either

~~6~~ **3** units of UD PHYS

or

PHYS 432 - Undergraduate Honours Thesis (6)

~~and 6 units of UD MATH courses, including 3 units at the 400 level or higher~~

OPTION B

Students who choose this option will complete

MATH 498 - Communication and Research Skills in the Mathematical Sciences (1)
MATH 499W - Honours Research Project (5)

and ~~12~~ **2** units of 400 level MATH courses

and 6 units of UD PHYS courses at the 400 level or higher

A maximum of 6 units from the research courses MATH 498, 499 and PHYS 432 may be used to satisfy the UD requirements.

Name of Program or Name of Faculty Science
Rationale for change: We seek to make the new course PHYS 313 Special Relativity, a recommended course in the Chemical Physics Honours Program to those students considering graduate school in Physics.
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: Chemical Physics 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 ... and one of CHEM 260 - Atoms, Molecules, Spectroscopy (4) PHYS 285 - Introduction to Relativity and Quantum Mechanics Quantum I (3) ... PHYS 321 - Intermediate Electricity and Magnetism (3) PHYS 384 - Methods of Theoretical Physics I (3) PHYS 415 - Quantum Mechanics III I (3) PHYS 421 - Electromagnetic Waves (3) ... and one of CHEM 364 - Quantum Chemistry (3) PHYS 385 - Quantum Mechanics II I (3) ... and upper division CHEM, NUSC or PHYS units chosen to bring the total upper division units to 48, and maintain a minimum of 21 upper division units in both chemistry and physics. A maximum of 11 units from the research courses CHEM 481, 483 and 484 and PHYS 432 may be used to satisfy the aforementioned 21 units of upper division credit. Students considering graduate school in Physics should take PHYS 313 – Special Relativity (3)



PHYS 413 – Advanced Mechanics (3)

PHYS 445 – Statistical Physics (3)

++ may substitute PHYS 285 for CHEM 260 as a prerequisite for CHEM 366W

Name of Program or Name of Faculty Science
Rationale for change: We seek to make the new course PHYS 313 Special Relativity, a recommended course in the Biological Physics Majors Program.
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: Biological Physics 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 ... and one of CHEM 260 - Atoms, Molecules, Spectroscopy (4) PHYS 285 - Introduction to Relativity and Quantum Mechanics Quantum I (3) ... PHYS 332W - Advanced Physics Laboratory I (4) PHYS 347 - Introduction to Biological Physics (3) PHYS 385 - Quantum Mechanics II (3) ... MBB 423 - Protein Structure and Function (3) MBB 491 - Directed Research I (5) PHYS 313 – Special Relativity (3) PHYS 395 - Computational Physics (3) PHYS 413 - Advanced Mechanics (3) PHYS 415 – Quantum III (3) PHYS 445 - Statistical Physics (3) PHYS 455 - Modern Optics (3) PHYS 492 - Special Topics in Physics (3)
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Name of Program or Name of Faculty Science
Rationale for change: We seek to make the new course PHYS 313 Special Relativity, a recommended course in the Biological Physics Honours Program to those students considering graduate school in Physics.
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: Biological Physics 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 ... and one of CHEM 260 - Atoms, Molecules, Spectroscopy (4) PHYS 285 - Introduction to Relativity and Quantum Mechanics Quantum I (3) ... Upper Division Requirements Complete all of MBB 322 - Molecular Physiology (3) MBB 331 - Molecular Biology (4) PHYS 321 - Intermediate Electricity and Magnetism (3) PHYS 332W - Advanced Physics Laboratory I (4) PHYS 347 - Introduction to Biological Physics (3) PHYS 385 - Quantum Mechanics II I (3) ... OPTION B Students who choose this option will complete all of PHYS 384 - Methods of Theoretical Physics I (3) PHYS 415 - Quantum Mechanics II I (3)
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PHYS 421 - Electromagnetic Waves (3)
PHYS 432 - Undergraduate Honours Thesis (6)
PHYS 445 - Statistical Physics (3)

and upper division MBB or PHYS courses to reach a minimum total of 48 units. BISC 421 and MATH 462 may be included in this requirement. **Students considering graduate school in Physics should also consider taking PHYS 313.** The following courses are suggested:

...

Name of Program or Name of Faculty Science
Rationale for change: Special relativity is no longer covered in the required course PHYS 285. Given the importance of special relativity to applied physics, we seek to make the new course PHYS 313 Special Relativity, a required course in the Applied Physics Major Program.
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: Applied Physics 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 ... PHYS 255 - Vibrations and Waves (3) PHYS 285 - Introduction to Relativity and Quantum Mechanics Quantum I (3) and one of ... Upper Division Requirements Complete all of PHYS 313 – Special Relativity (3) PHYS 321 - Intermediate Electricity and Magnetism (3) PHYS 326 - Electronics and Instrumentation (4) PHYS 332W - Advanced Physics Laboratory I (4) PHYS 344 - Thermal Physics (3) PHYS 385 - Quantum Mechanics I II (3) PHYS 421 - Electromagnetic Waves (3) and 13 10 units selected from
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...

NUSC 346 - Radiochemistry Laboratory (3)

PHYS 365 - Semiconductor Device Physics (3)

PHYS 391 – Introduction to Observational Astrophysics (3)

PHYS 395 - Computational Physics (3) + or MACM 316 - Numerical Analysis I (3)

PHYS 416 – Introduction to Quantum Information Science (3)

PHYS 431 - Advanced Physics Laboratory II (4)

...

Name of Program or Name of Faculty Science
Rationale for change: Special relativity is no longer covered in the required course PHYS 285. Given the importance of special relativity to applied physics, we seek to make PHYS 313 Special Relativity, a required course in the Applied Physics Honours Program.
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: Applied Physics 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**.

... PHYS 234 - Physics Laboratory IV (3) PHYS 255 - Vibrations and Waves (3) PHYS 285 - Introduction to Relativity and Quantum Mechanics Quantum I (3) and one of ... Upper Division Requirements Complete all of PHYS 313 – Special Relativity (3) ... PHYS 385 - Quantum Mechanics II (3) ... and a minimum of 17 14 additional units chosen from ... PHYS 365 - Semiconductor Device Physics (3) PHYS 391 – Introduction to Observational Astrophysics (3) PHYS 395 - Computational Physics (3) * or MACM 316 - Numerical Analysis I (3)
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PHYS 416 – Introduction to Quantum Information Science (3)

PHYS 455 - Modern Optics (3)

PHYS 465 - Solid State Physics (3)

Students considering physics graduate programs should also complete

PHYS 413 - Advanced Mechanics (3)

PHYS 415 - Quantum ~~Mechanics~~ **II** (3)

PHYS 445 - Statistical Physics (3)

* recommended

** the prerequisite ENSC 222 can be replaced by PHYS 326

++ should be based on an industrially motivated project

Name of Program or Name of Faculty Data Science honours
Rationale for change: We would also like to remove CMPT 127 (Computing Laboratory (3)) from the required courses because, as of Spring 2021, it will no longer be offered. The School of Computing Science has decided to merge CMPT 127 to the other two courses CMPT 120 (Introduction to Computing Science and Programming I (3)) and CMPT 125 (Introduction to Computing Science and Programming II (3)).
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: Data Science honours (DATAHON)

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**.

Data Science Honours Bachelor of Science (...) Mathematics Concentration Requirements Lower Division Requirements (...) Computing Science Students complete all of CMPT 120 - Introduction to Computing Science and Programming I (3) CMPT 125 - Introduction to Computing Science and Programming II (3) CMPT 127 - Computing Laboratory (3) CMPT 225 - Data Structures and Programming (3) CMPT 276 - Introduction to Software Engineering (3) CMPT 295 - Introduction to Computer Systems (3) (...) Open Concentration Requirements Lower Division Requirements (...) Computing Science

Students complete all of

CMPT 120 - Introduction to Computing Science and Programming I (3)
 CMPT 125 - Introduction to Computing Science and Programming II (3)
~~CMPT 127 - Computing Laboratory (3)~~
 CMPT 225 - Data Structures and Programming (3)
 CMPT 276 - Introduction to Software Engineering (3)
 CMPT 295 - Introduction to Computer Systems (3)

(...)

Statistics Concentration Requirements

Lower Division Requirements

(...)

Computing Science

Students complete all of

CMPT 120 - Introduction to Computing Science and Programming I (3)
 CMPT 125 - Introduction to Computing Science and Programming II (3)
~~CMPT 127 - Computing Laboratory (3)~~
 CMPT 225 - Data Structures and Programming (3)
 CMPT 276 - Introduction to Software Engineering (3)
 CMPT 295 - Introduction to Computer Systems (3)

(...)

Name of Program or Name of Faculty Data Science major
Rationale for change: We would also like to remove CMPT 127 (Computing Laboratory (3)) from the required courses because, as of Spring 2021, it will no longer be offered. The School of Computing Science has decided to merge CMPT 127 to the other two courses CMPT 120 (Introduction to Computing Science and Programming I (3)) and CMPT 125 (Introduction to Computing Science and Programming II (3)).
Effective term and year: Fall 2021
The following program(s) will be affected by these changes: Data Science major (DATAMAJ)

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**.

Data Science Major Bachelor of Science (...) Program Requirements (...) Lower Division Requirements Students complete a total of 58-60 55-57 units. (...) Computing Science Students complete all of CMPT 120 - Introduction to Computing Science and Programming I (3) CMPT 125 - Introduction to Computing Science and Programming II (3) CMPT 127 - Computing Laboratory (3) CMPT 225 - Data Structures and Programming (3) CMPT 276 - Introduction to Software Engineering (3) CMPT 295 - Introduction to Computer Systems (3) (...)
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