S.25-116

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MEMORANDUM

ATTENTION	Senate	DATE	June 6, 2025
FROM	Paul Kingsbury, Vice-Chair	PAGES	1/2
RE:	Senate Committee on Undergraduate Studies Program Changes		

For information:

Acting under delegated authority at its meeting of June 5, 2025 SCUS approved the following curriculum revisions effective Spring 2026.

a. Faculty of Applied Sciences

1. School of Engineering Science *(SCUS 25-100)*

(i) Requirement changes to the:

- Engineering Science, Biomedical Engineering Option Major
- Engineering Science, Biomedical Engineering Option Honours
- Engineering Science, Computer Engineering Option Major
- Engineering Science, Computer Engineering Option Honours

b. Faculty of Arts and Social Sciences *(SCUS 25-101)*

1. Department of Psychology

(i) Requirement changes to the Psychology Major

c. Beedie School of Business *(SCUS 25-102)*

(i) Requirement changes to the Business Technology Management Certificate

d. Faculty of Communication, Art and Technology *(SCUS 25-103)*

1. School of Interactive Arts and Technology

(i) Upper division requirement changes to the:

- Interactive Arts and Technology Major BA
- Interactive Arts and Technology Major BSc

e. Faculty of Environment *(SCUS 25-104)*

1. Department of Geography

(i) Requirement changes to the:

- Global Environmental Systems Major
- Global Environmental Systems Honours
- Physical Geography Major
- Physical Geography Honours
- Geo Business Joint Major
- Human Geography Major
- Human Geography Honours

f. Faculty of Science *(SCUS 25-105)*

1. Department of Earth Sciences *(Fall 2026)*

(i) Requirement changes to the:

- Earth Sciences Major
- Earth Sciences Minor
- Earth Sciences Honours

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.

SFU SENATE COMMITTEE ON UNDERGRADUATE STUDIES

PROGRAM MODIFICATION TEMPLATE

Name of Program or Name of Faculty School of Engineering Science
Rationale for change: BPK 308 is no longer offered. BPK 402 and BPK 448 were assessed as viable alternatives.
Effective term and year: Spring 2026
The following program(s) will be affected by these changes: Engineering Science, Biomedical Engineering Option Major Engineering Science, Biomedical Engineering Option Honours

Calendar Change: All deletions should be crossed out as follows: ~~sample.~~ All additions should be marked in **bold font.** Do not use **"**to" and "from" sections.

Core Course Requirements

[...]

BPK 201 - Biomechanics (3)
BPK 208 - Introduction to Physiological Systems (3)
~~BPK 308 - Experiments and Models in Systems Physiology (3)~~
BPK 402 - Mechanical Behavior of Biological Tissues (3) or BPK 448 - Rehabilitation of Movement Control (3)
CHEM 121 - General Chemistry and Laboratory I (4)
CHEM 180 - The Chemistry of Life (3)

[...]

Name of Program or Name of Faculty School of Engineering Science
Rationale for change: The language of "constrained electives" in the context of ESD electives is outdated and may be confused with similar terminology applied to course requirements outside of the ESD elective requirements.
Effective term and year: Spring 2026
The following program(s) will be affected by these changes: Engineering Science, Computer Engineering Option Major Engineering Science, Computer Engineering Option Honours

Calendar Change: All deletions should be crossed out as follows: ~~sample.~~ All additions should be marked in **bold font.** Do not use **"**to" and "from" sections.

Engineering Science and Design Elective Courses [...] Each option has a pre-approved list of electives that may include one or more pre-approved ESD electives. Note that these courses may have prerequisites not required for your option; these prerequisites would still need to be taken in order to enroll in the elective. Students interested in taking an ESD elective course that does not appear on this list should contact the Chair of their option/Undergraduate Curriculum Committee and obtain his/her approval in writing before proceeding with the course. Students in the computer engineering option must complete a minimum of 12 units from the engineering science & design elective course list at **https://www.sfu.ca/fas/study/current-students/school-of-engineering-science/undergraduates/program-requirements.html#ENSCoption.** ~~As part of the required 12 units, students must complete one course set from the constrained elective list.~~ Students may take a maximum of two 300-level ESD electives. [...]

SFU SENATE COMMITTEE ON UNDERGRADUATE STUDIES

PROGRAM MODIFICATION TEMPLATE

Name of Program or Name of Faculty Department of Psychology
Rationale for change: Requirements for proposed FASS-Exeter Dual Degree Program.
Effective term and year: Spring 2026
The following program(s) will be affected by these changes: Psychology Major

Calendar Change: All deletions should be crossed out as follows: ~~sample.~~ All additions should be marked in **bold font.** Do not use **"**to" and "from" sections.

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)

and one course from the following group A courses

PSYC 221 - Introduction to Cognitive Psychology (3)
PSYC 280 - Introduction to Biological Psychology (3)

and one course from the following group B courses

PSYC 241 - Introduction to Psychological Disorders and Neurodiversity (3)
PSYC 250 - Introduction to Developmental Psychology (3)
PSYC 260 - Introduction to Social Psychology (3)
PSYC 268 - Introduction to Law and Psychology (3)
and one additional course from either group A or group B (see above).

* with a final course grade of C (2.0) or better

Upper Division Requirements

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

PSYC 300W - Critical Analysis of Issues in Psychology (4) *

and an additional 26 upper division PSYC units.

* with a final course grade of C- (1.67) or better

No more than six Research Engagement or Directed Studies units may be applied to this program. No more than six PSYC Field School units may be applied to this program. A minimum of 15 upper division psychology units must be completed at Simon Fraser University.

****FASS-Exeter dual degree program students completing a major in psychology must complete the requirements listed above. To view full requirements for the dual degree program, please see: <link to Faculty level DDP listing>**

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

PROGRAM MODIFICATION TEMPLATE

Name of Program or Name of Faculty Beedie School of Business
Rationale for change: BUS 413 is being deleted in Spring 2026. Students will gain basic corporate finance knowledge in the new BUS 313 (starting Fall 2025).
Effective term and year: Spring 2026
The following program(s) will be affected by these changes: • Business Technology Management

Calendar Change: All deletions should be crossed out as follows: ~~sample.~~ All additions should be marked in **bold font.** Do not use **"**to" and "from" sections.

Business Technology Management

CERTIFICATE

Limitations

Units applied to one certificate may be applied also to major or minor programs of a bachelor's degree under the normal regulations governing those programs but may not be applied to another Simon Fraser University certificate or diploma.

Grade Requirements

In addition to normal university grade point average requirements, the Beedie School of Business requires a minimum 2.30 overall SFU Business course grade point average for entry into all 300 and 400 division business courses.

For a course to be accepted as fulfilling a prerequisite, or for a lower division requirement, or for a core course to be accepted in a student's program in business, a student must have obtained a minimum grade of C- (C minus).

A minimum grade point average of 2.00 calculated on all courses applied towards the certificate is required for graduation from a business certificate.

Program Requirements

Students complete a minimum of five core courses, one of the TWO specializations, and an experiential component, as indicated below.

Core Courses

Students must complete all of

BUS 361 - Project Management (3)
BUS 362 - Business Process Analysis (4)
BUS 462 - Business Analytics (3)
BUS 464 - Business Data Management (3)
BUS 468 - Managing Information Technology for Business Value (3)

Students must complete the courses associated with one of the two following specializations for the certificate:

Management Information Systems Specialization

Any two of

BUS 440 - Simulation in Management Decision-making (4)
BUS 465 - Business Systems Development (3)
BUS 466 - Web-Enabled Business and Emerging Technologies (3)
BUS 486 - Leadership (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) *

and one of

CMPT 120 - Introduction to Computing Science and Programming I (3)
CMPT 130 - Introduction to Computer Programming I (3)
CMPT 272 - Web I - Client-side Development (3)
IAT 201 - Human-Computer Interaction and Cognition (3)

*When offered as a selected topics course in management information systems.

Financial Services Specialization

All of

BUS 313 – Corporate Finance (3)
BUS 410 - Financial Institutions (3)
~~BUS 413 - Corporate Finance (3)~~
BUS 418 - International Financial Management (3)

Both the financial services and management information systems specializations also require the completion of one of the following experiential or service learning components approved by the Area Coordinator of Management Information Systems:

- Experience in a volunteer, internship, research assistantship or other non co-op work role within a student group, social enterprise, charitable organization, or non-profit organization related to business and technology.* Prior approval is required before the commencement of this experience by submitting a detailed outline describing activities that will be undertaken. Upon completion of these activities, students must submit a detailed outline and description of activities.
- Successful completion of at least one Co-operative Education (Co-op) work term with a focus related to business and technology.* A description (written by either the student or the organization and signed and validated by the employer/supervisor) of the organization and the student's role and activities with that organization must be submitted.

*Experience which will be considered relevant includes those that require a significant amount of work activities such as: (i) planning, managing and/or leading a business technology project; (ii) analyzing a business need and presenting a technology based solution or plan to address need; (iii) designing and presenting a technology enabled solution to a business problem; (iv) analyzing a business process and developing a plan to implement a technology enabled solution; and/or (v) developing a technology based solution to a business problem.

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

PROGRAM MODIFICATION TEMPLATE

Name of Program or Name of Faculty School of Interactive Arts & Technology, Faculty of Communication Arts & Technology
Rationale for change: Please see memo for rationale of change.
Effective term and year: Spring 2026
The following program(s) will be affected by these changes: Interactive Arts and Technology Major BA Interactive Arts and Technology Major BSc

Calendar Change: All deletions should be crossed out as follows: ~~sample.~~ All additions should be marked in **bold font.** Do not use **"**to" and "from" sections.

Upper Division Requirements A major in interactive arts in technology requires a minimum of ~~30~~**32** upper division IAT units and a minimum of ~~nine~~ **eight** upper division courses. Of these, students must take [...]

SFU SENATE COMMITTEE ON UNDERGRADUATE STUDIES

PROGRAM MODIFICATION TEMPLATE

Name of Program or Name of Faculty Benv Global Environmental Systems Major, Faculty of Environment
Rationale for change: GEOG 467 is a new course that needs to be articulated into the program.
Effective term and year: Spring 2026
The following program(s) will be affected by these changes: Global Environmental Systems Major Global Environmental Systems Honours

Calendar Change: All deletions should be crossed out as follows: ~~sample.~~ All additions should be marked in **bold font.** Do not use **"**to" and "from" sections.

Biophysical Systems (choose two)

ARCH 388 - Geoarchaeology (4)
GEOG 213 - Introduction to Geomorphology (3)
GEOG 304 - Geography of Wine (4)
GEOG 311 - Hydrology (4)
GEOG 312 - Geography of Natural Hazards (4)
GEOG 313 - River Geomorphology (4)
GEOG 315 - World Ecosystems (4)
GEOG 316 - Global Biogeochemical and Water Cycles (4)
GEOG 317 - Soil Science (4)
GEOG 412W - Glacial Processes and Environments (4)
GEOG 414 - Climate Change (4)
GEOG 417W - Advanced Soil Science (4)
GEOG 467 - Sḵwx̱wú7mesh Ethnobotany Field Course
REM 370 - Global Resource Issues in Oceanography (4)
REM 375 - Ecology and Conservation of Coastal BC (3)
[...]

Capstone Experience (choose one)

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

GEOG 418 - Ecohydrology (4)
GEOG 421 - Geographical Political Economy (4)
GEOG 423 - Capitalist Natures (4)
GEOG 429 - Racial Capitalism and Beyond (4)
GEOG 432 - Problems in Environmental History (4)
GEOG 440 - Property, Land, Society (4)
GEOG 441 - Cities, Space, and Politics (4)
GEOG 442 - A World of Cities (4)
GEOG 449 - City and Environment (4)
GEOG 451 - Spatial Modeling (4)
GEOG 453 - Theoretical and Applied Remote Sensing (4)
GEOG 455W - Theoretical and Applied GIS (4)
GEOG 457 - Geovisualization Interfaces (4)
GEOG 461 - Urban Change Studio (6)
GEOG 465 - Geographies of Conquest and Liberation (4)
GEOG 467 - Sḵwx̱wú7mesh Ethnobotany Field Course
[...]

Name of Program or Name of Faculty BSc Physical Geography Major, Faculty of Environment
Rationale for change: GEOG 467 is a new course that needs to be articulated into the program.
Effective term and year: Spring 2026
The following program(s) will be affected by these changes: Physical Geography Major Physical Geography Honours

Calendar Change: All deletions should be crossed out as follows: ~~sample.~~ All additions should be marked in **bold font.** Do not use **"**to" and "from" sections.

Upper Division Requirements

BIOGEOPHYSICAL SCIENCE STREAM

[…]

and one of

GEOG 312 - Geography of Natural Hazards (4)
GEOG 385 - Food and the City (4)
GEOG 467 - Sḵwx̱wú7mesh Ethnobotany Field Course
REM 321 - Ecological Economics (4)
REM 445 - Environmental Risk Assessment (4)
[...]

GEOSYSTEMS AND GISCIENCE STREAM

[...]

GEOG 310 - Physical Geography Field Course (4)
GEOG 311 - Hydrology (4)
GEOG 313 - River Geomorphology (4)
GEOG 314 - The Climate System (4)
GEOG 315 - World Ecosystems (4)

GEOG 316 - Global Biogeochemical and Water Cycles (4)
GEOG 317 - Soil Science (4)
GEOG 412W - Glacial Processes and Environments (4)
GEOG 414 - Climate Change (4)
GEOG 417W - Advanced Soil Science (4)
GEOG 418 - Ecohydrology (4)
GEOG 467 - Sḵwx̱wú7mesh Ethnobotany Field Course
[...]

Name of Program or Name of Faculty

GeoBusiness Joint Major, Faculty of Environment/Beedie School of Business

Rationale for change:

GEOG 467 is a new course that needs to be articulated into the program.

Effective term and year:
Spring 2026

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

Geo Business Joint Major

Calendar Change: All deletions should be crossed out as follows: ~~sample.~~ All additions should be marked in **bold font.** Do not use "to" and "from" sections.

GLOBAL PERSPECTIVES

GEOG 321 - Geographies of Global Capitalism (4)
GEOG 333 - Climate Crisis: Understanding a World on Fire (4)
GEOG 381 - Territory, Power, State (4) or GEOG 381W - Territory, Power, State (4)
GEOG 382 - World on the Move (4)
GEOG 386 - Health Geography (4)
GEOG 389W - Nature and Society (4)
GEOG 423 - Capitalist Natures (4)
GEOG 429 - Racial Capitalism and Beyond (4)
GEOG 441 - Cities, Space, and Politics (4)
GEOG 442 - A World of Cities (4)
GEOG 465 - Geographies of Conquest and Liberation (4)
GEOG 467 - Skwxwú7mesh Ethnobotany Field Course (4)
GEOG 497 - International Field Study (5)

Name of Program or Name of Faculty Bachelor of Arts, Human Geography
Rationale for change: GEOG 467 is a new course that needs to be articulated into the program.
Effective term and year: Spring 2026
The following program(s) will be affected by these changes: Bachelor of Arts, Human Geography Major Bachelor of Arts, Human Geography Honours

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

Human Geography Major

Space, Power and Difference (choose 2)

GEOG 340 - Queer Geographies (4)
GEOG 364 – Cities and Crisis (4)
GEOG 365 - Race, Resistance and Urban Space (4)
GEOG 382 - World on the Move (4)
GEOG 387 - Geography and Gender (4)
GEOG 429 - Racial Capitalism and Beyond (4)
GEOG 465 - Geographies of Conquest and Liberation (4)
GEOG 467 - Skwxwú7mesh Ethnobotany Field Course (4)

Human Geography Honours

Space, Power and Difference (choose 2)

GEOG 340 - Queer Geographies (4)
GEOG 364 – Cities and Crisis (4)
GEOG 365 - Race, Resistance and Urban Space (4)
GEOG 382 - World on the Move (4)
GEOG 387 - Geography and Gender (4)
GEOG 429 - Racial Capitalism and Beyond (4)
GEOG 465 - Geographies of Conquest and Liberation (4)
GEOG 467 - Skwxwú7mesh Ethnobotany Field Course (4)
GEOG 492 - Advanced Theory and Methods for Human Geographers (4)

SFU SENATE COMMITTEE ON UNDERGRADUATE STUDIES

PROGRAM MODIFICATION TEMPLATE

Name of Program or Name of Faculty

Earth Sciences Major

Rationale for change:
The proposed changes aim to streamline the Earth Sciences Major Program by making several strategic changes. The program currently offers three streams: environmental geoscience, geology, and general. For the Environmental Geoscience and Geology streams, both of which lead directly to students meeting the academic requirements for registration as a P.Geo. with EGBC, two important changes are made: 1) deleting EASC 210 from the program and replacing it with a similar course – EASC 106; and 2) deleting EASC 207 from the program and replacing it with the more applied course EASC 307. One positive outcome is a reduction in the required number of LD units from 56 to 53. In addition, the recent certification of EASC 305 as a W course allows for EASC 310 to be removed as a required course for the Geology stream, making room for EASC 402 in the Geology stream. EASC 317 and EASC 416 will be deleted from the program as there is no current capacity for the department to teach these courses.

The General stream currently requires that students take the field schools. However, recognizing the need for accommodating students with diverse needs, we propose opening up the General stream to allow students to select courses. Several example course combinations under different themes (critical minerals and regional geology; geohazards & water; energy geosystems) have been developed for advising purposes.

A program impact report indicates that EASC 207 and EASC 210 are required for the Physical Geography BSc Major/Honours programs (Geoscience stream only); EASC 210 is required for the Philosophy and Methodology of Science Certificate (list of electives); EASC 210 is required for the Chemistry and Earth Science Joint Major/Honours; EASC 416 is listed as an elective for the Environmental Science Major/Honours. The substitution of EASC 106 for EASC 210 and the substitution of EASC 307 for EASC 207, will accommodate these programs. EASC 317 is not required by any other programs other than Earth Sciences. There will be no substitution for EASC 416, but it is only listed as an elective.

The Departments concerned (Geography, Philosophy, Environmental Science) have been contacted and will make the necessary changes to their programs. No UCC chair expressed concern. We will work with Chemistry to attend to the changes needed to the Joint Major/ Honours once our program changes have been approved by senate.

Effective term and year:
Fall 2026

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

Earth Sciences Major

Calendar Change: All deletions should be crossed out as follows: ~~sample.~~ All additions should be marked in **bold font.** Do not use "to" and "from" sections.

BACHELOR OF SCIENCE

The department offers a bachelor of science (BSc) degree with three course stream options leading to course concentrations: ~~geology stream,~~ environmental geoscience stream, **geology stream**, and general earth sciences stream.

The ~~geology and~~ environmental geoscience **and geology** streams are designed **to meet the academic requirements for registration as** ~~permit a student to enroll as a geologist or~~ **an** environmental geoscientist **or geologist,** respectively, **through** ~~in the Association of Professional~~ Engineers and Geoscientists ~~of~~ British Columbia (~~AP~~EGBC), the governing body that regulates geoscience practice in BC. All students intending to practice as a geoscientist in BC must be licensed by ~~AP~~EGBC~~,~~ and are strongly advised to pursue one of these two streams. ~~Many~~ **Most** other Canadian provinces also require professional licensing.

Students who are not intending to practice as professional geoscientists~~,~~ may choose to pursue the general earth sciences stream. This stream may best accommodate students in some joint major programs.

Students should seek the advice of a departmental program advisor.

Minimum Grade Requirement

Students wishing to enroll in earth sciences courses must obtain a C- grade or better in prerequisite courses.

Program Requirements

Students complete a minimum of 120 units, as specified below.

Lower Division Requirements

All students **in the environmental geoscience stream and the geology stream**~~, regardless of chosen stream~~ will complete a minimum of ~~56~~ **53** units, including all of

CHEM 121 - General Chemistry and Laboratory I (4)
CHEM 122 - General Chemistry II (2)
CHEM 126 - General Chemistry Laboratory II (2)
EASC 101 - Dynamic Earth (3)
EASC 106 – Earth Through Time (3)

EASC 201 - Stratigraphy and Sedimentation (3)
EASC 202 - Introduction to Mineralogy (3)
EASC 204 - Structural Geology I (3)
EASC 205 - Introduction to Petrology (3)
EASC 206 - Field Geology I (3)
~~EASC 207 - Introduction to Applied Geophysics (3)~~
EASC 208 - Introduction to Geochemistry (3)
EASC 209W - Environmental Geoscience (4)
~~EASC 210 - Evolving Earth (3)~~
MATH 151 - Calculus I (3) or MATH 150 - Calculus I with Review (4)
MATH 152 - Calculus II (3)
and one of

STAT 201 - Statistics for the Life Sciences (3)
STAT 270 - Introduction to Probability and Statistics (3)
all of

PHYS 101 - Physics for the Life Sciences I (3)
PHYS 102 - Physics for the Life Sciences II (3)
PHYS 132 - Physics Laboratory I (1)
PHYS 133 - Physics Laboratory II (1)
or all of

PHYS 120 - Mechanics and Modern Physics (3)
PHYS 121 - Optics, Electricity and Magnetism (3)
PHYS 132 - Physics Laboratory I (1)
PHYS 133 - Physics Laboratory II (1)
or all of

PHYS 125 - Mechanics and Special Relativity (3)
PHYS 126 - Electricity, Magnetism and Light (3)
PHYS 132 - Physics Laboratory I (1)
PHYS 133 - Physics Laboratory II (1)
or both of

PHYS 140 - Studio Physics - Mechanics and Modern Physics (4)
PHYS 141 - Studio Physics - Optics, Electricity and Magnetism (4)

Upper Division Requirements

Students are encouraged to select upper division elective courses in consultation with an academic advisor, as EGBC has specific groupings of elective courses for each stream, respectively.

ENVIRONMENTAL GEOSCIENCE STREAM

Students who choose this stream will complete a minimum of ~~45~~ **44** units, including all of

EASC 304 - Hydrogeology (3)
EASC 305**W** - Quantitative Methods for the Earth Sciences (3)
EASC 306 - Field Geology II (3)
EASC 307 – Applied Geophysics (3)
EASC 308 - Field Geology III (3)
EASC 313 - Introduction to Soil and Rock Engineering (3)
EASC 315~~W~~ - Geochemistry of Natural Waters (3)
EASC 403 - Quaternary Geology (3)
and at least one of

EASC 301 - Igneous Petrology (3)
EASC 302 - Sedimentary Petrology (3)
EASC 309 - Global Tectonics (3)
~~EASC 310W - Paleontology (3)~~
EASC 402 – Sedimentology (3)

and at least ~~21~~ **17** units (with a minimum of ~~15~~ **9** units from EASC) chosen from

EASC 300 - Selected Topics in Earth Sciences (3)
EASC 301 - Igneous Petrology (3)
EASC 302 - Sedimentary Petrology (3)
~~EASC 307 - Applied Geophysics (3)~~
EASC 309 - Global Tectonics (3)
EASC 310~~W~~ - Paleontology (3)
EASC 311 - Metamorphic Petrology (3)
EASC 312 - Stratigraphy (3)
EASC 314 - Principles of Glaciology (3)
~~EASC 317 - Global Geophysics (3)~~
EASC 400 - Selected Topics in Earth Sciences (3)
EASC 401 - Mineral Deposits (3)
EASC 402 - Sedimentology (3)
EASC 404 - Structural Geology II (3)
EASC 405 - Water, Environment, and Climate Change (3)
EASC 408 - Regional Geology of Western Canada (3)
EASC 410 - Groundwater Contamination and Transport (3)
EASC 411 - Terrain Analysis (3)
EASC 413 - Engineering Geology and Resource Geotechnics (3)
EASC 415 - Groundwater Modelling (3)
~~EASC 416 - Field and Lab Techniques in Hydrogeology (3)~~
EASC 420 - Energy Geosystems (3)
EASC 421 - Volcanology (3)
EASC 491 - Directed Readings (1) *
EASC 492 - Directed Readings (2) *
EASC 493 - Directed Readings (3) *

EASC 498 - Undergraduate Research (3)
GEOG 311 - Hydrology (4)
GEOG 313 - River Geomorphology (4)
GEOG 355 - Geographical Information Science II (4)
REM 334 - Earth's Past Climates (4)
REM 445 - Environmental Risk Assessment (4)
REM 446 - Environmental and Social Impact Assessment (4)
SCI 301 - Science Communication: An Introduction (3)
provided the courses have not been used in any of the course groupings listed above.

GEOLOGY STREAM
Students who choose this stream will complete a minimum of ~~45~~ **44** units, including all of
EASC 301 - Igneous Petrology (3)
EASC 302 - Sedimentary Petrology (3)
EASC 305**W** - Quantitative Methods for the Earth Sciences (3)
EASC 306 - Field Geology II (3)
EASC 307 – Applied Geophysics (3)
EASC 308 - Field Geology III (3)
EASC 309 - Global Tectonics (3)
~~EASC 310W - Paleontology (3)~~
EASC 311 - Metamorphic Petrology (3)
EASC 402 – Sedimentology (3)
and at least one of

EASC 304 - Hydrogeology (3)
EASC 313 - Introduction to Soil and Rock Engineering (3)
EASC 403 - Quaternary Geology (3)
and at least ~~18~~ **14** units (with a minimum of ~~15~~ **9** units from EASC) chosen from

EASC 300 - Selected Topics in Earth Sciences (3)
EASC 304 - Hydrogeology (3)
~~EASC 307 - Applied Geophysics (3)~~
EASC 310 – Paleontology (3)
EASC 312 - Stratigraphy (3)
EASC 313 - Introduction to Soil and Rock Engineering (3)
EASC 314 - Principles of Glaciology (3)
EASC 315~~W~~ - Geochemistry of Natural Waters (3)
~~EASC 317 - Global Geophysics (3)~~
EASC 400 - Selected Topics in Earth Sciences (3)
EASC 401 - Mineral Deposits (3)
~~EASC 402 - Sedimentology (3)~~
EASC 403 - Quaternary Geology (3)
EASC 404 - Structural Geology II (3)
EASC 405 - Water, Environment, and Climate Change (3)
EASC 408 - Regional Geology of Western Canada (3)

EASC 410 - Groundwater Contamination and Transport (3)
EASC 411 - Terrain Analysis (3)
EASC 413 - Engineering Geology and Resource Geotechnics (3)
EASC 415 - Groundwater Modelling (3)
~~EASC 416 - Field and Lab Techniques in Hydrogeology (3)~~
EASC 420 - Energy Geosystems (3)
EASC 421 - Volcanology (3)
EASC 491 - Directed Readings (1) *
EASC 492 - Directed Readings (2) *
EASC 493 - Directed Readings (3) *
EASC 498 - Undergraduate Research (3)
GEOG 311 - Hydrology (4)
GEOG 313 - River Geomorphology (4)
GEOG 355 - Geographical Information Science II (4)
REM 334 - Earth's Past Climates (4)
REM 445 - Environmental Risk Assessment (4)
REM 446 - Environmental and Social Impact Assessment (4)
SCI 301 - Science Communication: An Introduction (3)
provided the courses have not been used in any of the course groupings listed above.

GENERAL EARTH SCIENCES STREAM

Students who choose this stream will complete a minimum of ~~45~~ **44 upper division** units**, including at least 28 units of upper division EASC courses*, along with all prerequisites for those courses. Students also must meet all WQB requirements.**
~~including all of~~

~~EASC 306 - Field Geology II (3)~~
~~EASC 308 - Field Geology III (3)~~
~~and one of~~

~~EASC 310W - Paleontology (3)~~
~~EASC 315W - Geochemistry of Natural Waters (3)~~
~~and at least 36 units of upper division EASC or related courses that are approved by the department.*~~

* students may only complete a maximum of three units from a combination of EASC 491, 492, or 493
Students are encouraged to select their lower division courses in consultation with an advisor to ensure that prerequisites for desired upper division courses are met.

Name of Program or Name of Faculty

Earth Sciences Minor

Rationale for change:
The current Minor program has very prescriptive LD courses. We propose opening up the Minor program by only requiring EASC 101. Students may select upper division courses of interest, along with their prerequisites. Several example course combinations under different themes (critical minerals, water and environment; geohazards; energy geosystems; field focused) have been developed for advising purposes. The change to the Minor program will significantly reduce the number of courses students must take.

Effective term and year:
Fall 2026

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

Earth Sciences Minor

Calendar Change: All deletions should be crossed out as follows: ~~sample.~~ All additions should be marked in **bold font.** Do not use **"**to" and "from" sections.

Program Requirements

Students are subject to the general regulations of the faculty in which they are enrolled. Students must obtain a C- grade or better in all EASC and prerequisite courses. In addition, a 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 will complete

EASC 101 - Dynamic Earth (3)
~~EASC 210 - Evolving Earth (3)~~

~~and at least three of~~

~~EASC 201 - Stratigraphy and Sedimentation (3)~~
~~EASC 202 - Introduction to Mineralogy (3)~~
~~EASC 204 - Structural Geology I (3)~~
~~EASC 205 - Introduction to Petrology (3)~~

~~EASC 206 - Field Geology I (3)~~
~~EASC 207 - Introduction to Applied Geophysics (3)~~
~~EASC 208 - Introduction to Geochemistry (3)~~
~~EASC 209W - Environmental Geoscience (4)~~

and a minimum of 15 units ~~in 300 and 400 level~~ **of upper division** EASC courses, together with all prerequisites **for those courses**, excluding EASC 491, EASC 492, EASC 493, and EASC 498.
~~Students can select EASC courses focused in areas of environmental geoscience or geology.~~
Students are encouraged to select their lower division courses in consultation with an advisor ~~in order~~ to ensure that prerequisite**s** ~~requirements~~ for desired upper division courses are met. **An advisor can also suggest combinations of courses in different areas of environmental geoscience and geology.**

Name of Program or Name of Faculty

Earth Sciences Honours

Rationale for change:

Same rationale as for the Major program.

The proposed changes aim to streamline the Earth Sciences Honours Program by making several strategic changes. The program currently offers three streams: environmental geoscience, geology, and general. For the Environmental Geoscience and Geology streams, both of which lead directly to students meeting the academic requirements for registration as a P.Geo. with EGBC, two important changes are made: 1) deleting EASC 210 from the program and replacing it with a similar course – EASC 106; and 2) deleting EASC 207 from the program and replacing it with the more applied course EASC 307. One outcome is a reduction in the required number of LD units from 56 to 53. In addition, the recent certification of EASC 305 as a W course allows for EASC 310 to be removed as a required course for the Geology stream, making room for EASC 402 in the Geology stream. EASC 317 and EASC 416 will be deleted from the program as there is no current capacity for the department to teach these courses.

The General stream currently requires that students take the field schools. However, recognizing the need for accommodating students with diverse needs, we propose opening up the General stream to allow students to select courses. Several example course combinations under different themes (critical minerals and regional geology; geohazards & water; energy geosystems) have been developed for advising purposes.

A program impact report indicates that EASC 207 and EASC 210 are required for the Physical Geography BSc Major/Honours programs (Geoscience stream only); EASC 210 is required for the Philosophy and Methodology of Science Certificate (list of electives); EASC 210 is required for the Chemistry and Earth Science Joint Major/Honours; EASC 416 is listed as an elective for the Environmental Science Major/Honours.

The substitution of EASC 106 for EASC 210 and the substitution of EASC 307 for EASC 207, will accommodate these programs. EASC 317 is not required by any other programs other than Earth Sciences. There will be no substitution for EASC 416, but it is only listed as an elective.

The Departments concerned (Geography, Philosophy, Environmental Science) have been contacted and will make the necessary changes to their programs. No UCC chair expressed concern. We will work with Chemistry to attend to the changes needed to the Joint Major/ Honours once our program changes have been approved by senate.

Effective term and year:
Fall 2026

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

Earth Sciences Honours

Calendar Change: All deletions should be crossed out as follows: ~~sample.~~ All additions should be marked in **bold font.** Do not use "to" and "from" sections.

BACHELOR OF SCIENCE

This bachelor of science (BSc) with honours program offers a wide cross-section of discipline-related courses while providing an opportunity for independent research. The program has three course stream**s** ~~options leading to course concentrations~~: ~~geology stream,~~ environmental geoscience ~~stream~~, **geology**, and general earth sciences ~~stream~~.

The ~~geology and~~ environmental geoscience **and geology** streams are designed to **meet the academic requirements for registration as** ~~permit a student to enroll as~~ **an** environmental geoscientist **or geologist**, respectively, **through** ~~in the Association of Professional~~ Engineers and Geoscientists ~~of~~ British Columbia (~~AP~~EGBC), the governing body that regulates geoscience practice in BC. All students intending to practice as a geoscientist in BC must be licensed by ~~AP~~EGBC~~,~~ and are strongly advised to pursue one of these two streams. ~~Many~~ **Most** other Canadian provinces also require professional licensing.

Students who are not intending to practice as professional geoscientists, may choose to pursue the general earth sciences stream. This stream may best accommodate students in some joint maior programs.

Students should seek the advice of a departmental program advisor.

Admission Requirements

Entry to the program requires a 3.00 or higher (B standing) cumulative grade point average (CGPA), and departmental permission.

Minimum Grade Requirement

Students wishing to enroll in earth sciences courses must obtain a C- grade or better in prerequisite courses.

Program Requirements

Students complete a minimum of ~~121~~ **120** units, as specified below including a minimum 3.00 cumulative grade point average to be awarded an honours degree.

Lower Division Requirements

All students **in the environmental geoscience stream and the geology stream**~~, regardless of chosen stream~~ will complete a minimum of ~~56~~ **53** units, including all of

CHEM 121 - General Chemistry and Laboratory I (4)
CHEM 122 - General Chemistry II (2)
CHEM 126 - General Chemistry Laboratory II (2)
EASC 101 - Dynamic Earth (3)
EASC 106 – Earth Through Time (3)
EASC 201 - Stratigraphy and Sedimentation (3)
EASC 202 - Introduction to Mineralogy (3)
EASC 204 - Structural Geology I (3)
EASC 205 - Introduction to Petrology (3)
EASC 206 - Field Geology I (3)
~~EASC 207 - Introduction to Applied Geophysics (3)~~
EASC 208 - Introduction to Geochemistry (3)
EASC 209W - Environmental Geoscience (4)
~~EASC 210 - Evolving Earth (3)~~
MATH 151 - Calculus I (3) or MATH 150 - Calculus I with Review (4)
MATH 152 - Calculus II (3)
and one of

STAT 201 - Statistics for the Life Sciences (3)
STAT 270 - Introduction to Probability and Statistics (3)
all of

PHYS 101 - Physics for the Life Sciences I (3)
PHYS 102 - Physics for the Life Sciences II (3)
PHYS 132 - Physics Laboratory I (1)
PHYS 133 - Physics Laboratory II (1)
or all of

PHYS 120 - Mechanics and Modern Physics (3)
PHYS 121 - Optics, Electricity and Magnetism (3)
PHYS 132 - Physics Laboratory I (1)
PHYS 133 - Physics Laboratory II (1)
or all of

PHYS 125 - Mechanics and Special Relativity (3)
PHYS 126 - Electricity, Magnetism and Light (3)
PHYS 132 - Physics Laboratory I (1)
PHYS 133 - Physics Laboratory II (1)
or both of

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

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

Upper Division Requirements

Students will complete 60 units minimum of 300 and 400 division EASC or related courses that are approved by the department. Students are encouraged to select upper division elective courses in consultation with an academic advisor, as EGBC has specific groupings of elective courses for each stream, respectively.

ENVIRONMENTAL GEOSCIENCE STREAM

Students who choose this stream will complete a minimum of ~~51~~ **48** units, including all of

EASC 304 - Hydrogeology (3)
EASC 305**W** - Quantitative Methods for the Earth Sciences (3)
EASC 306 - Field Geology II (3)
EASC 307 – Applied Geophysics (3)
EASC 308 - Field Geology III (3)
EASC 313 - Introduction to Soil and Rock Engineering (3)
EASC 315~~W~~ - Geochemistry of Natural Waters (3)
EASC 403 - Quaternary Geology (3)
EASC 498 - Undergraduate Research (3)
EASC 499 - Honours Thesis (6)
and at least one of

EASC 301 - Igneous Petrology (3)
EASC 302 - Sedimentary Petrology (3)
EASC 309 - Global Tectonics (3)
~~EASC 310W - Paleontology (3)~~
EASC 402 – Sedimentology (3)
and at least ~~18~~ **12** units (with a minimum of ~~12~~ **6** units from EASC) chosen from

EASC 300 - Selected Topics in Earth Sciences (3)
EASC 301 - Igneous Petrology (3)
EASC 302 - Sedimentary Petrology (3)
~~EASC 307 - Applied Geophysics (3)~~
EASC 309 - Global Tectonics (3)
EASC 310~~W~~ - Paleontology (3)
EASC 311 - Metamorphic Petrology (3)
EASC 312 - Stratigraphy (3)
EASC 314 - Principles of Glaciology (3)
~~EASC 317 - Global Geophysics (3)~~
EASC 400 - Selected Topics in Earth Sciences (3)
EASC 401 - Mineral Deposits (3)
EASC 402 - Sedimentology (3)
EASC 404 - Structural Geology II (3)
EASC 405 - Water, Environment, and Climate Change (3)

EASC 408 - Regional Geology of Western Canada (3)
EASC 410 - Groundwater Contamination and Transport (3)
EASC 411 - Terrain Analysis (3)
EASC 413 - Engineering Geology and Resource Geotechnics (3)
EASC 415 - Groundwater Modelling (3)
~~EASC 416 - Field and Lab Techniques in Hydrogeology (3)~~
EASC 420 - Energy Geosystems (3)
EASC 421 - Volcanology (3)
EASC 491 - Directed Readings (1) *
EASC 492 - Directed Readings (2) *
EASC 493 - Directed Readings (3) *
GEOG 311 - Hydrology (4)
GEOG 313 - River Geomorphology (4)
GEOG 355 - Geographical Information Science II (4)
REM 334 - Earth's Past Climates (4)
REM 445 - Environmental Risk Assessment (4)
REM 446 - Environmental and Social Impact Assessment (4)
SCI 301 - Science Communication: An Introduction (3)
provided the courses have not been used in any of the course groupings listed above.

GEOLOGY STREAM
Students who choose this stream will complete a minimum of ~~51~~ **48** units, including all of

EASC 301 - Igneous Petrology (3)
EASC 302 - Sedimentary Petrology (3)
EASC 305**W** - Quantitative Methods for the Earth Sciences (3)
EASC 306 - Field Geology II (3)
EASC 307 – Applied Geophysics (3)
EASC 308 - Field Geology III (3)
EASC 309 - Global Tectonics (3)
~~EASC 310W - Paleontology (3)~~
EASC 311 - Metamorphic Petrology (3)
EASC 402 – Sedimentology (3)
EASC 498 - Undergraduate Research (3)
EASC 499 - Honours Thesis (6)
and at least one of

EASC 304 - Hydrogeology (3)
EASC 313 - Introduction to Soil and Rock Engineering (3)
EASC 403 - Quaternary Geology (3)
and at least ~~15~~ **9** units (with a minimum of ~~12~~ **6** units from EASC) chosen from

EASC 300 - Selected Topics in Earth Sciences (3)
EASC 304 - Hydrogeology (3)
~~EASC 307 - Applied Geophysics (3)~~

EASC 310 - Paleontology (3)
EASC 312 - Stratigraphy (3)
EASC 313 - Introduction to Soil and Rock Engineering (3)
EASC 314 - Principles of Glaciology (3)
EASC 315~~W~~ - Geochemistry of Natural Waters (3)
~~EASC 317 - Global Geophysics (3)~~
EASC 400 - Selected Topics in Earth Sciences (3)
EASC 401 - Mineral Deposits (3)
~~EASC 402 - Sedimentology (3)~~
EASC 403 - Quaternary Geology (3)
EASC 404 - Structural Geology II (3)
EASC 405 - Water, Environment, and Climate Change (3)
EASC 408 - Regional Geology of Western Canada (3)
EASC 410 - Groundwater Contamination and Transport (3)
EASC 411 - Terrain Analysis (3)
EASC 413 - Engineering Geology and Resource Geotechnics (3)
EASC 415 - Groundwater Modelling (3)
~~EASC 416 - Field and Lab Techniques in Hydrogeology (3)~~
EASC 420 - Energy Geosystems (3)
EASC 421 - Volcanology (3)
EASC 491 - Directed Readings (1) *
EASC 492 - Directed Readings (2) *
EASC 493 - Directed Readings (3) *
GEOG 311 - Hydrology (4)
GEOG 313 - River Geomorphology (4)
GEOG 355 - Geographical Information Science II (4)
REM 334 - Earth's Past Climates (4)
REM 445 - Environmental Risk Assessment (4)
REM 446 - Environmental and Social Impact Assessment (4)
SCI 301 - Science Communication: An Introduction (3)
provided the courses have not been used in any of the course groupings listed above.

GENERAL EARTH SCIENCES STREAM
Students who choose this stream will complete a minimum of ~~48 units, including all of~~ **60 upper division units, including at least 48 units of upper division EASC courses*, along with all prerequisites for those courses. Students must meet all WQB requirements.**

~~EASC 306 - Field Geology II (3)~~
~~EASC 308 - Field Geology III (3)~~
~~EASC 499 - Honours Thesis (6)~~
~~and one of~~

~~EASC 310W - Paleontology (3)~~
~~EASC 315W - Geochemistry of Natural Waters (3)~~
~~and at least 33 other upper division EASC units*~~

* students may only complete a maximum of three units from a combination of EASC 491, 492, or 493

Students are encouraged to select their lower division courses in consultation with an advisor to ensure that prerequisites for desired upper division courses are met.