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MEMORANDUM

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

DATE February 7, 2020

PAGES 1/1

For information:

Acting under delegated authority at its meeting of February 6, 2020 SCUS approved the following curriculum revisions effective Fall 2020.

a. Faculty of Applied Sciences (SCUS 20-10)

- (i) Changes to the course overload policy for the Mechatronic Systems Engineering

b. Beedie School of Business (SCUS 20-11)

- (i) Lower division requirement changes to the Business and Economics Joint Major program
- (ii) Description and upper division requirement changes to the Business Major and Honours programs (Bachelor of Business Administration)

c. Faculty of Environment (SCUS 20-12)**1. School of Resource and Environmental Management**

- (i) Upper and lower division requirement changes for the Resource and Environmental Management Major program
- (ii) Upper and lower division requirement changes for the Resource and Environmental Management Honours 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>.



FACULTY OF APPLIED SCIENCES

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MEMORANDUM

| | | | |
|------------------|---|--------------|---------------------------------|
| ATTENTION | Wade Parkhouse, Chair Senate Committee on Undergraduate Studies | DATE | January 27 th , 2020 |
| FROM | Edward Park, Associate Dean Faculty of Applied Sciences | PAGES | 1/2 |
| RE: | Program Modifications | | |

The FAS Undergraduate Curriculum Committee in the Faculty of Applied Sciences has approved the following program modification:

1. Mechatronic Systems Engineering (MSE)
 - a. Mechatronic Systems Engineering
 - Course overload

Best regards,

A handwritten signature in black ink, appearing to read 'Edward Park', written over a horizontal line.

Edward Park
Associate Dean, Faculty of Applied Sciences

To: FAS – UCC

From: MSE UCC Chair

Subject: Course overload

Date: January 13, 2020

The original proposal for the Mechatronic Systems Engineering program did not explicitly state an overload requirement. The School approved a motion by UCC regarding course overload at the faculty committee meeting held on September 27, 2019. The School approved the following amendment to its academic requirements:

No student who is on academic probation may enroll in a course overload. In the School of Mechatronic Systems Engineering, permission of the director is required for course overloads exceeding 22 credit units.

A handwritten signature in black ink, appearing to read 'ARM', with a horizontal line underneath it.

Ahmad Rad

MSE UCC Chair

**Calendar Entry Change****SFU Beedie School of Business Undergraduate Program**

Rationale for change:

The addition of WL 105 (3) World Literature Lab, PHIL 110 (3) Intro to Logic & Reasoning, PHIL 150 (3) Great works in the History of Philosophy would provide students with additional options for courses that achieve the writing and critical thinking goals of the ENGL/WL/PHIL requirements of Beedie's business programs.

Effective term and year:

Fall 2020

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

Business 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**.

Lower Division Requirements

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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)

PHIL 100W - Knowledge and Reality (3)

PHIL 105 - Critical Thinking (3)

PHIL 110 - Introduction to Logic and Reasoning (3)

PHIL 120W - Moral and Legal Problems (3)

PHIL 150 - Great Works in the History of Philosophy (3)

WL 101W - Writing in World Literature (3)

WL 103W - Early World Literatures (3)

WL 104W - Modern World Literatures (3)

WL 105W - World Literature Lab (3)

**Calendar Entry Change
SFU Beedie School of Business Undergraduate Program**

Rationale for change:

This change clarifies the upper division and non-business unit requirements for students in the Business Major program. These changes also ensure that the Calendar description aligns with the university’s calendar language, which differentiates between requirements at the degree level and requirements at the program level.

The overall upper division and non-BUS units requirements are now listed at the beginning of the Calendar entry with the rest of the degree requirements, and upper division business unit are now listed under the Business Major program requirements.

Effective term and year: Fall 2020

The following program(s) will be affected by these changes:
Business Major (Bachelor of Business Administration)

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**.

Business Major
BACHELOR OF BUSINESS ADMINISTRATION

Students admitted to the Beedie School of Business for the Fall 2017 term onwards must complete the Business Foundation Program within their first year.

During the first 60 units of the program, students will complete mainly non-business courses, which fall under three categories of courses. The first category consists of lower division requirements that are mainly foundation courses and prepares students for more advanced upper division business courses. The second category consists of courses completed to meet university requirements in writing, quantitative and breadth areas, **as well as a minimum of 36 units, outside of the Beedie School of Business***. These first two categories should be completed during the first 60 units.

In the third category, students choose courses that are based on intellectual interest or to achieve academic goals.

The last 60 units of the degree program consist of the core upper division business courses, at least one area of concentration, and lower and upper division electives. **In total, students will complete a minimum of 120 units, which must include at least 45 units of upper division coursework.**

Students are also required to complete the Business Career Passport program, which consists of six workshops to prepare them for their careers.

***Courses not labelled as BUS or BUEC that are completed as part of the lower division requirements may be used toward the 36 units outside business.**

...

Program Requirements

Students complete at least 120 units, within which:

~~• Students must complete a minimum of 36 units, outside the Beedie School of Business*. Within the 36 units, students must also meet the University requirements for breadth — 6 units labelled as Breadth-Humanities, 6 units labelled as Breadth-Science, and 6 units labelled as Breadth-Social Science, and 6 units of additional breadth that may or may not be labelled.~~

~~*Courses not labelled as BUS or BUEC that are completed as part of the lower division requirements may be used toward the 36 units outside business.~~

~~• Students admitted to the Beedie School of Business for the Fall 2017 term onwards must complete the Business Foundation Program within their first year. Students admitted from high school must complete the Business Foundation Program – High School Stream. Students admitted through internal or external transfer must complete the Business Foundation Program - Transfer Stream. The courses required for each stream can be found under the Business Foundation Program.~~

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Upper Division Requirements

~~In the last 60 units, students must complete a minimum of 45 upper division units, of which a minimum of 36 **upper division** units must be in **BUS business** courses, **which must include the following:**~~

~~The minimum 36 upper division units in business must include the following:~~

- ~~• all core courses (see Core Courses below)~~
- ~~• an area of concentration (see Areas of Concentration below)~~
- ~~• at least three 400 division BUS courses (excluding practicum courses and BUS 478). Any 400 division BUS course completed at SFU must be worth a minimum of 3 units to be used to fulfil this requirement. These courses may be used toward the requirements for the area(s) of concentration. At least one of these 400 division BUS courses must be completed at Simon Fraser University.~~

~~Further, upper division courses in any discipline must be completed to bring the total upper division credit to 45 units minimum.~~

Calendar Entry Change

SFU Beedie School of Business Undergraduate Program

Rationale for change:

This change clarifies the upper division and non-business unit requirements for students in the Business Honours program. This change also ensure that the Calendar description aligns with the university's calendar language, which differentiates between requirements at the degree level and requirements at the program level.

The overall upper division and non-BUS units requirements are now listed at the beginning of the Calendar entry with the rest of the degree requirements, and upper division business unit are now listed under the Business Honours program requirements.

Effective term and year: Fall 2020

The following program(s) will be affected by these changes:
Business Honours (Bachelor of Business Administration)

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**.

Business Honours

BACHELOR OF BUSINESS ADMINISTRATION

Students admitted to the Beedie School of Business for the Fall 2017 term onwards must complete the Business Foundation Program within their first year.

Students will complete mainly non-business courses during the first 60 units of the program, completing three categories of courses. The first category consists of lower division requirements that are mainly foundation courses, which prepares students for more advanced upper division business courses. The second category consists of courses completed to meet university requirements in writing, quantitative and breadth, **as well as a minimum of 36 units, outside of the Beedie School of Business***. The first two categories should be completed during the first 60 units.

In the third category, students choose courses that are based on intellectual interest or to achieve academic goals. The last 72 units of the degree program consists of the completion of the core upper division business courses, at least one area of concentration, lower and upper division electives, and an additional 12 units of 400 division BUS courses. **In total, students will complete a minimum of 132 units, which must include at least 60 units of upper division coursework.**

Students are also required to complete the Business Career Passport program, which consists of six workshops to prepare them for their careers.

***Courses not labelled as BUS or BUEC that are completed as part of the lower division requirements may be used toward the 36 units outside business.**

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Program Requirements

~~Students complete at least 132 units, of which 60 units must be upper division. Additionally, the 132 units:~~

~~must include a minimum of 36 units, outside the Beedie School of Business*. Within the 36 units, students must meet the University requirements for breadth — 6 units labelled as Breadth-Humanities, 6 units labelled as Breadth-Science, and 6 units labelled as Breadth-Social Science, and 6 units of additional breadth that may or may not be labelled.~~

~~*Courses not labelled as BUS or BUEC that are completed as part of the lower division requirements may be used toward the 36 units outside business.~~

▲-Students admitted to the Beedie School of Business for the Fall 2017 term onwards must complete the Business Foundation Program within their first year. Students admitted from high school must complete the Business Foundation Program – High School Stream. Students admitted through internal or external transfer must complete the Business Foundation Program - Transfer Stream. The courses required for each stream can be found under the Business Foundation Program.

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Upper Division Requirements

All upper division BUS courses have a prerequisite of 60 units. However, approved business majors may complete 300 division BUS courses upon completion of 45 units.

In the last 72 units, honours students must complete a minimum of ~~60 upper division units, of which a minimum~~ of **48 upper division units must be in business courses, which must include the following:**

~~The minimum 48 upper division units in business must include the following:~~

- all core courses
- an area of concentration
- at least three 400 division BUS courses (excluding practicum courses and BUS 478). Any 400 division BUS course completed at SFU must be worth a minimum of 3 units to be used to fulfil this requirement. These courses may be used toward the requirements for an area of concentration. At least one of these 400 division BUS courses must be completed at Simon Fraser University.
- additional 12 units of 400 division BUS coursework

~~Further upper division courses in any discipline must be completed to bring the total upper division units to a minimum of 60.~~

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PROGRAM MODIFICATION TEMPLATE

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

Rationale for change:

Since accepting the transfer of the ERM Major to REM from the FENV Dean's Office several years ago REM has been revising it to be truly a REM Major, while maintaining the original intent and essential content of the BENV degree. An initial step in this direction was carried out in 2017 and mostly involved extending REM course offerings at the 3xx and especially the 4xx levels. Now we are proposing further changes to complete the process. Chiefly, the changes involve tailoring the Major to better provide our students with a learning experience that achieves the Educational Goals REM has set out for the program, while again retaining the original character of the ERM Major. As a result, there has been a strong emphasis on the development of new courses since accepting the transfer of the ERM Major, culminating in the addition of 9 new courses included in this package, most of which are at the 2xx and 3xx levels. Upon approval the newly revised program will still contain a number of non-REM courses, and even add several non-REM courses, since these will contribute directly to meeting our Educational Goals and the objectives of the BENV degree.

Effective term and year:

Fall 2020

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

ARCH, BISC, CMNS, DIAL, ENV, EVSC, FNST, GEOG, HISTORY, POL

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**.

Resource and Environmental Management Major

Bachelor of Environment

The Resource and Environmental Management Major prepares students to seek employment or continue in graduate studies in the broadly defined area of resource and environmental management or planning.

Admission Requirements

Admission Requirements to the Resource and Environmental Management Major - Planning Stream

Students must apply to enter the REM Planning stream and must meet the following conditions to qualify:

- A minimum of 30 units completed
- A minimum CGPA of 3.33
- Completion of PLAN 200 with a minimum grade of B+
- Departmental approval

Minimum Grades for Management Stream

The minimum cumulative grade point average (CGPA) for continuation and graduation is 2.00.

Minimum Grades for Planning Stream

The minimum cumulative grade point average (CGPA) for continuation and graduation in the Resource and Environmental Management major Planning stream is 3.00.

Program Requirements

Program Requirements for All Streams

Students complete 120 units, including at least 45 upper division units, as specified below.

Note: Some of the courses below have prerequisites not included in the REM major requirements. Students are responsible for satisfying the prerequisites for all courses in their program. Students should review the upper division program requirements in advance to determine any lower division prerequisites they should complete.

Additional Program Requirements for Planning Stream

In addition to the REM major program requirements, Planning stream students are also required to complete the Faculty of Environment Co-op program or two terms of Planning Internship. Units from Co-op and Internship courses do not count towards SFU degree requirements. Students planning to take the Co-op program must meet the Faculty of Environment Co-op admission requirements and apply two terms prior to their first work term.

Course Substitutions

Substitutions of program requirements, including courses deemed equivalent to these required courses, are not allowed without written permission from the program. Such courses taken without approval will not be applied to graduation requirements. Students should consult their academic advisor for details on obtaining permission for substitutions.

Lower Division Requirements for All Streams



Complete all of

FNST 101 - Introduction to First Nations Studies (3)
GEOG 111 - Earth Systems (3)
~~POL 253 - Introduction to Public Policy (3) *~~
PLAN 200 - Introduction to Planning (3)
REM 100 - Global Change (3)
REM 200 - Introduction to Resource and Environmental Management in Canada (3)
REM 202W - Technical Communication for Environmental Professionals and Planners (3)
REM 211 - Introduction to Applied Ecology (3)
REM 225 - Quantitative Toolkit for Social-Ecological Systems (3)

Choose one of

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

Choose one of

GEOG 251 - Quantitative Geography (3)
STAT 201 - Statistics for the Life Sciences (3)
STAT 203 - Introduction to Statistics for the Social Sciences (3)
STAT 205 - Introduction to Statistics (3)

Choose one of

~~GEOG 253 - Introduction to Remote Sensing (3)~~
GEOG 255 - Geographical Information Science I (3)
REM 221 - Systems Thinking and the Environment (3) *

Choose one of

~~ARCH 201 - Reconstructing the Human Past (3)~~
ARCH 286 - Cultural Heritage Management (3)
FNST 212 - Indigenous Perceptions of Landscape (3)
FNST 286 - Indigenous Peoples and British Columbia: An Introduction (3)
REM 207 - Indigenous Peoples and Resource Management (3)

Choose one of

GEOG 221 - Economic Worlds (3)
GEOG 241 - People, Place, Society (3)
GEOG 261 - Encountering the City (3) **
REM 281 - Sustainable Communities, Sustainable World (3) or SD 281 - Sustainable Communities, Sustainable World (3)

~~* May not be used when completing the Planning Stream~~

~~* Planning stream students may not use this course to fulfill this requirement and must instead take GEOG 255.~~

~~** May not be used when completing the Management Stream~~

~~**Additional Lower Division Requirements for Planning Stream**~~

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

~~PLAN 200 – Introduction to Planning (3)~~

~~REM 202W – Technical Communication for Environmental Professionals and Planners (3)~~

Upper Division Requirements

Management Stream

Complete all of

REM 311 - Applied Ecology and Sustainable Environments (3)

REM 321 - Ecological Economics (4)

REM 356W - Institutional Arrangements for Sustainable Environmental Policy Management (3)

Biophysical Perspectives on Resource and Environmental Management

Choose one of

ARCH 363 – Landscape Archaeology (3)

GEOG 315 – World Ecosystems (4)

GEOG 317 – Soil Science (4)

GEOG 311- Hydrology (4)

REM 334 - Earth’s Past Climates (3) or EVSC 334 - Earth’s Past Climates (3)

REM 370 - Global Resource Issues in Oceanography (4)

REM 375 - Ecology and Conservation of Coastal BC (3)

REM 388 – Wildlife Conservation (3)

Quantitative Methods in Resource and Environmental Management

Choose one of

GEOG 352 - Spatial Analysis (4)
~~GEOG 353 - Advanced Remote Sensing (4)~~
 GEOG 355 - Geographical Information Science II (4)
REM 325 - Uncertainty, Risk, and Decision Analysis (3)
 REM 412 - Environmental Modeling (4)
~~REM 423 - Research Methods in Fisheries Assessment (4)~~

Indigenous Perspectives on Resource and Environmental Management

Choose one of

FNST 332 - Ethnobotany of British Columbia First Nations (3)
 FNST 353W - First Nations Heritage Stewardship (3)
 FNST 433 - Indigenous Environmental Justice and Activism (4)
 REM 406 - Indigenous People and Co-management (4)
 REM 407 - Indigenous Governance and Resource Relationships (4) **or PLAN 407 - Indigenous Governance and Resource Relationships (4)**

Social and Community Perspectives on Resource and Environmental Management

Choose one of

~~ARCH 365 - Archaeological Perspectives on Human Ecology (3)~~
~~GEOG 377 - Environmental History (4) or HIST 377 - Environmental History (4)~~
 GEOG 389W - Nature and Society (4)
ARCH 389 - Ethnoecology (3)
PLAN 408 - Environmental Planning for Sustainable Communities (4)
 REM 381 - Building Sustainable Communities: Concepts and Cases (4) **or SD 381 - Building Sustainable Communities: Concepts and Cases (4)**
 SD 401 - Sustainable Development Goals Studio (4)

Communication and Conflict Resolution

Choose one of

~~CMNS 342 - Science and Public Policy: Risk Communication (4)~~
 CMNS 349 - Environment, Media and Communication (4)
~~DIAL 460 - Seminar in Dialogue and Public Issues (4)~~
 ENV **REM 320W - Ethics and the Environment (3)**
 ENV **REM 452 - Environmental Education (8) or EDUC 452 - Environmental Education (8)**
PLAN 443 - Public Engagement, Mediation and Conflict Resolution in Planning (4)
REM 481 - Sustainable Communities Leadership Lab (4) or SD 481 - Sustainable Communities Leadership Lab (4)
~~EVSC 300 - Seminar in Environmental Science (3)~~



Policy, Planning and Regulation

Choose one of

~~ARCH 386 - Archaeological Resource Management (3)~~

~~FNST 401 - Aboriginal Peoples and Public Policy (3)~~

PLAN 300 - Methods for Planning Analysis (4)

PLAN 400 - Planning Theory and Policy Analysis (4)

REM 319 - Environmental and Planning Law (3) or PLAN 319 - Environmental and Planning Law (3)

REM 446 - Environmental and Social Impact Assessment (4)

Resource and Environmental Management Sectors

Choose two of (one must be at the 400 level)

GEOG 327 - Geography of Tourism (4)

~~GEOG 385 - Food and the City (4)~~

PLAN 406 - Rural Planning and Development (4)

REM 350 - Sustainable Energy and Materials Management (4)

REM 355 - Sustainable Transportation Management (3)

REM 357 - Planning for Sustainable Food Systems (3)

REM 423 - Research Methods in Fisheries Assessment (4)

REM 427 - Avalanche Risk Management (4)

REM 431 - Climate Change and Environmental Management (4)

REM 445 - Environmental Risk Assessment (4)

REM 454 - Water Security (4)

REM 471 - Forest Ecosystem Management (4)

~~REM 481 - Sustainable Communities Leadership Lab (4) or SD 481 - Sustainable Communities Leadership Lab (4)~~

Upper Division Electives

Any other two REM courses from the full list of 300 and 400 level REM courses.

Capstone Experience

Complete the following

REM 495 - Resource and Environmental Management Capstone (4)

Planning Stream



Complete all of

REM 311 - Applied Ecology and Sustainable Environments (3)

REM 321 - Ecological Economics (4)

REM 356W - Institutional Arrangements for Sustainable Environmental Policy Management (3)

Resource and Environmental Planning

Complete all of

PLAN 300 - Methods for Planning Analysis (4)

PLAN 319 - Environmental and Planning Law (3) or REM 319 - Environmental and Planning Law (3)

PLAN 400 - Planning Theory and Policy Analysis (4)

PLAN 443 - Public Engagement, Mediation and Conflict Resolution in Planning (4)

Spatial Methods in Resource and Environmental Planning

Choose one of

GEOG 352 - Spatial Analysis (4)

GEOG 353 - Advanced Remote Sensing (4)

GEOG 355 - Geographical Information Science II (4)

Indigenous Perspectives on Resource and Environmental Management and Planning

Choose one of

FNST 353W - First Nations Heritage Stewardship (3)

FNST 401 - Aboriginal Peoples and Public Policy (3)

FNST 433 - Indigenous Environmental Justice and Activism (4)

REM 406 - Indigenous People and Co-management (4)

Social and Community Perspectives on Resource and Environmental Management and Planning

Choose one of

GEOG 389W - Nature and Society (4)

REM 381 - Building Sustainable Communities: Concepts and Cases (4) or SD 381 - Building Sustainable Communities: Concepts and Cases (4)

REM 446 - Environmental and Social Impact Assessment (4)

SD 401 - Sustainable Development Goals Studio (4)

Planning Specialization

Choose one of

PLAN 406 - Rural Planning and Development (4)

PLAN 407 - Indigenous Governance and Resource Relationships (4) or REM 407 - Indigenous Governance and Resource Relationships (4)

PLAN 408 - Environmental Planning for Sustainable Communities (4)

Resource and Environmental Management Sectors

Choose two of (one must be at the 400 level)

GEOG 324 - Geography of Transportation (4)

GEOG 327 - Geography of Tourism (4)

GEOG 363 - Urban Planning and Policy (4)

GEOG 385 - Food and the City (4)

REM 350 - Sustainable Energy and Materials Management (4)

REM 355 - Sustainable Transportation Management (3)

REM 357 - Planning for Sustainable Food Systems (3)

REM 370 - Global Resource Issues in Oceanography (4)

REM 375 - Ecology and Conservation of Coastal BC (3)

REM 388 – Wildlife Conservation (3)

REM 427 - Avalanche Risk Management (4)

REM 445 - Environmental Risk Assessment (4)

REM 454 - Water Security (4)

REM 471 - Forest Ecosystem Management (4)

Practical Experience

Complete the following

ENV 302 - Environment Practicum I (3) *

ENV 303 - Environment Practicum II (3) *

OR

PLAN 302 - Planning Internship I (1)

PLAN 402 - Planning Internship II (1)

Capstone Experience

Complete the following

PLAN 495 - Professional Planning Capstone (4)

* Units from this course do not count towards the units required for an SFU degree.

Writing, Quantitative, and Breadth Requirements

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

WQB Graduation Requirements

A grade of C- or better is required to earn W, Q or B credit

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

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.

Elective Courses

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

Calendar Entry Change

Name of Program or Name of Faculty

Rationale for change:

Since accepting the transfer of the ERM Major to REM from the FENV Dean's Office several years ago REM has been revising it to be truly a REM program, including the addition of a REM Honours program. In the process, REM has endeavored to maintain the original intent and essential content of the BENV degree. An initial step in this direction was carried out in 2017 and mostly involved extending REM course offerings at the 3xx and especially the 4xx levels in the REM Major (prior to the addition of the Honours program). Now we are proposing further changes to complete the process. Chiefly, the changes involve tailoring the Major and Honours programs to better provide our students with a learning experience that achieves the Educational Goals REM has set out for the programs, while again retaining the original character of the ERM Major. As a result, there has been a strong emphasis on the development of new courses since accepting the transfer of the ERM Major, culminating in the addition of 9 new courses included in this package, most of which are at the 2xx and 3xx levels. Upon approval the newly revised program will still contain a number of non-REM courses, and even add several non-REM courses, since these will contribute directly to meeting our Educational Goals and the objectives of the BENV degree.

Effective term and year:

Fall 2020

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

ARCH, BISC, CMNS, DIAL, ENV, EVSC, FNST, GEOG, HISTORY, POL

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**.

Resource and Environmental Management Honours

Bachelor of Environment

The Resource and Environmental Management Honours prepares students to seek employment or continue in graduate studies in the broadly defined area of resource and environmental management with more intensive study than the Major.

Admission Requirements

Students must apply to enter the REM Honours program and must meet the following conditions to qualify:

- A minimum of 45 units completed
- A minimum CGPA of 3.33
- Completion of REM 200 with a minimum grade of B+
- Departmental approval

Minimum Grade Requirements

The minimum cumulative grade point average (CGPA) for continuation and graduation is 3.00.

Program Requirements

Students complete 120 units, including at least 60 upper division units. In addition, a minimum of 48 upper division units must be taken from the REM Honours program. Students also complete an Honours Thesis under the supervision of a REM faculty member.

Note: Some of the courses below have prerequisites not included in the REM Honours requirements. Students are responsible for satisfying the prerequisites for all courses in their program. Students should review the upper division program requirements in advance to determine any lower division prerequisites they should complete.

Course Substitutions

Substitutions of program requirements, including courses deemed equivalent to these required courses, are not allowed without written permission from the program. Such courses taken without approval will not be applied to graduation requirements. Students should consult their academic advisor for details on obtaining permission for substitutions.

Lower Division Requirements

Complete all of

FNST 101 - Introduction to First Nations Studies (3)

GEOG 111 - Earth Systems (3)

~~POL 253 - Introduction to Public Policy (3)~~

PLAN 200 - Introduction to Planning (3)

REM 100 - Global Change (3)

REM 200 - Introduction to Resource and Environmental Management in Canada (3)

REM 202W - Technical Communication for Environmental Professionals and Planners (3)

REM 211 - Introduction to Applied Ecology (3)

REM 225 - Quantitative Toolkit for Social-Ecological Systems (3)

Choose one of

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



GEOG 215 – Biogeography (3)

Choose one of

- GEOG 251 - Quantitative Geography (3)
- STAT 201 - Statistics for the Life Sciences (3)
- STAT 203 - Introduction to Statistics for the Social Sciences (3)
- STAT 205 - Introduction to Statistics (3)

Choose one of

- ~~GEOG 253 – Introduction to Remote Sensing (3)~~
- GEOG 255 - Geographical Information Science I (3)
- REM 221 - Systems Thinking and the Environment (3)

Choose one of

- ~~ARCH 201 – Reconstructing the Human Past (3)~~
- ARCH 286 - Cultural Heritage Management (3)
- FNST 212 - Indigenous Perceptions of Landscape (3)
- FNST 286 – Indigenous Peoples and British Columbia: An Introduction (3)**
- REM 207 – Indigenous Peoples and Resource Management (3)**

Choose one of

- GEOG 221 - Economic Worlds (3)
- GEOG 241 - People, Place, Society (3)
- GEOG 261 – Encountering the City (3)**
- REM 281 - Sustainable Communities, Sustainable World (3) or SD 281 - Sustainable Communities, Sustainable World (3)

Upper Division Requirements

Complete all of

- ~~REM 311 - Applied Ecology and Sustainable Environments (3)~~
- REM 321 - Ecological Economics (4)
- ~~REM 356W - Institutional Arrangements for Sustainable Environmental Policy Management (3)~~

Biophysical Perspectives on Resource and Environmental Management

Choose one of

- ~~ARCH 363 – Landscape Archaeology (3)~~
- ~~GEOG 315 – World Ecosystems (4)~~

~~GEOG 317 – Soil Science (4)~~

GEOG 311 – Hydrology (4)

REM 334 - Earth's Past Climates (3) or EVSC 334 - Earth's Past Climates (3)

REM 370 - Global Resource Issues in Oceanography (4)

REM 375 - Ecology and Conservation of Coastal BC (3)

REM 388 – Wildlife Conservation (3)

Quantitative Methods in Resource and Environmental Management

Choose one of

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

~~GEOG 353 – Advanced Remote Sensing (4)~~

GEOG 355 - Geographical Information Science II (4)

REM 325 Uncertainty, Risk, and Decision Analysis (3)

REM 412 - Environmental Modeling (4)

~~REM 423 – Research Methods in Fisheries Assessment (4)~~

Indigenous Perspectives on Resource and Environmental Management

Choose one of

FNST 332 - Ethnobotany of British Columbia First Nations (3)

FNST 353W - First Nations Heritage Stewardship (3)

FNST 433 - Indigenous Environmental Justice and Activism (4)

REM 406 - Indigenous People and Co-management (4)

REM 407 - Indigenous Governance and Resource Relationships (4) or **PLAN 407 - Indigenous Governance and Resource Relationships (4)**

Social and Community Perspectives on Resource and Environmental Management

Choose one of

~~ARCH 365 – Archaeological Perspectives on Human Ecology (3)~~

~~GEOG 377 – Environmental History (4) or HIST 377 – Environmental History (4)~~

GEOG 389W - Nature and Society (4)

ARCH 389 Ethnoecology (3)

PLAN 408 – Environmental Planning for Sustainable Communities (4)

REM 381 - Building Sustainable Communities: Concepts and Cases (4) or SD 381 - Building Sustainable Communities: Concepts and Cases (4)

SD 401 - Sustainable Development Goals Studio (4)

Communication and Conflict Resolution

Choose one of



CMNS 342—Science and Public Policy: Risk Communication (4)
CMNS 349 - Environment, Media and Communication (4)
DIAL 460—Seminar in Dialogue and Public Issues (4)
ENV REM 320W - Ethics and the Environment (3)
ENV REM 452 - Environmental Education (8) or EDUC 452 - Environmental Education (8)
PLAN 443 - Public Engagement, Mediation and Conflict Resolution in Planning (4)
REM 481 – Sustainable Communities Leadership Lab (4) or SD 481 - Sustainable Communities Leadership Lab (4)
EVSC 300—Seminar in Environmental Science (3)

Policy, Planning and Regulation

Choose one of

ARCH 386—Archaeological Resource Management (3)
FNST 401 - Aboriginal Peoples and Public Policy (3)
PLAN 300 – Methods for Planning Analysis (3)
PLAN 400 – Planning Theory and Policy Analysis (4)
REM 319 - Environmental and Planning Law (3) or **PLAN 319 - Environmental and Planning Law (3)**
REM 446 - Environmental and Social Impact Assessment (4)

Resource and Environmental Management Sectors

Choose two of (one must be at the 400 level)

GEOG 327 - Geography of Tourism (4)
GEOG 385—Food and the City (4)
PLAN 406 - Rural Planning and Development (4)
REM 350 - Sustainable Energy and Materials Management (4)
REM 355 - Sustainable Transportation Management (3)
REM 357 – Planning for Sustainable Food Systems (3)
REM 423 – Research Methods in Fisheries Assessment (4)
REM 427 - Avalanche Risk Management (4)
REM 431 – Climate Change and Environmental Management (4)
REM 445 - Environmental Risk Assessment (4)
REM 454 - Water Security (4)
REM 471 - Forest Ecosystem Management (4)
REM 481—Sustainable Communities Leadership Lab (4) or SD 481—Sustainable Communities Leadership Lab (4)

Upper Division Electives

Any other two REM courses from the full list of 300 and 400 level REM courses.

Capstone Experience

Complete the following

REM 495 - Resource and Environmental Management Capstone (4)

Honours Thesis

Complete the following

REM 499 - Resource and Environmental Management Honours Thesis (4)

Writing, Quantitative, and Breadth Requirements

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

WQB Graduation Requirements

A grade of C- or better is required to earn W, Q or B credit

| Requirement | Units | Notes | |
|------------------|-------|--|---|
| W - Writing | 6 | Must include at least one upper division course, taken at Simon Fraser University within the student's major subject | |
| Q - Quantitative | 6 | Q courses may be lower or upper division | |
| B - Breadth | 18 | Designated Breadth | Must be outside the student's major subject, and may be lower or upper division 6 units Social Sciences: B-Soc 6 units Humanities: B-Hum 6 units Sciences: B-Sci |
| | 6 | Additional Breadth | 6 units outside the student's major subject (may or may not be B-designated courses, and will likely help fulfil individual degree program requirements) Students choosing to complete a joint major, joint honours, |



| | | | |
|--|--|--|---|
| | | | double major, two extended minors, an extended minor and a minor, or two minors may satisfy the breadth requirements (designated or not designated) with courses completed in either one or both program areas. |
|--|--|--|---|

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.

Elective Courses

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

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