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MEMORANDUM

ATTENTION Senate
FROM Wade Parkhouse, Chair
Senate Committee on
Undergraduate Studies
RE: Course Changes (SCUS 19-01)

DATE January 11, 2019
PAGES 1/2

For information:

Acting under delegated authority at its meeting of January 10, 2019 SCUS approved the following curriculum revisions effective Fall 2019.

a. Faculty of Environment

1. School of Resource and Environmental Management

- (i) Prerequisite change for REM 221
- (ii) Title and equivalent statement change for REM 319
- (iii) Units and prerequisite change for REM 370

2. Department of Geography

- (i) Description and equivalent statement change for GEOG 215

3. School of Environmental Science

- (i) Units and prerequisite change for EVSC 305 (Spring 2020)

b. Faculty of Science

1. Department of Earth Sciences

(i) Title change for EASC 210

2. Department of Molecular Biology and Biochemistry

(i) Title and description change for MBB 427

(ii) Description and prerequisite change for MBB 471

(iii) Title change for MBB 496 and 498

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>.

| | | | | | |
|----------------|-----|--------|-----|-------|--------------------------------------|
| COURSE SUBJECT | REM | NUMBER | 221 | TITLE | Systems Thinking and the Environment |
|----------------|-----|--------|-----|-------|--------------------------------------|

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

| | | | | | |
|---------------|--------------------------|-------------|--------------------------|----------------------|-------------------------------------|
| Course number | <input type="checkbox"/> | Units | <input type="checkbox"/> | Prerequisite | <input checked="" type="checkbox"/> |
| Title | <input type="checkbox"/> | Description | <input type="checkbox"/> | Equivalent Statement | <input type="checkbox"/> |

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using strike-through, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under [Information about specific course components](#) if changing equivalent statement(s).

Prerequisite: One of: ~~Math 12 Foundations of Mathematics, Math 12 Pre-calculus, MATH 100, MATH 197 or MATH 198.~~ And one of: EVSC 100, GEOG 102, GEOG 111 or REM 100. REM 100, or GEOG 100 or 111, or EVSC 100. Students with credit for ENV 221 may not take this course for further credit. Quantitative.

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

Fall 2019

RATIONALE (must be included)

The prerequisite change will bring the course in line with other REM 200 level courses.



COURSE SUBJECT REM NUMBER 319 TITLE Environmental Law

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

- Course number [], Units [], Prerequisite [], Title [X], Description [], Equivalent Statement [X]

WORDING/DESCRIPTION EDITS. Indicate deleted or changed text using strike-through, indicate added or new text using underline. If you need to enter more text than the box allows, drag the endpoint of the text box to make it bigger, as it will not automatically expand. Please review the "Equivalency statements" section under Information about specific course components if changing equivalent statement(s).

REM 319 Environmental and Planning Law
Students who have taken ENV 399-3 "Special Topics in Environmental Law" in 2012 may not enroll in this course for further credit. Students with credit for ENV 319 or PLAN 319 may not take for further credit.

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

Fall 2019

RATIONALE (must be included)

This is an existing course that we wish to modify so that it can serve an important role in our proposed Planning concentration (to come later). Thus, the main change is to integrate more planning content. It will also be cross-listed as PLAN 319.



| | | | | | |
|-----------------------|-----|---------------|-----|--------------|--|
| COURSE SUBJECT | REM | NUMBER | 370 | TITLE | Global Resource Issues in Oceanography |
|-----------------------|-----|---------------|-----|--------------|--|

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

| | | | | | |
|---------------|--------------------------|-------------|-------------------------------------|----------------------|-------------------------------------|
| Course number | <input type="checkbox"/> | Units | <input checked="" type="checkbox"/> | Prerequisite | <input checked="" type="checkbox"/> |
| Title | <input type="checkbox"/> | Description | <input type="checkbox"/> | Equivalent Statement | <input type="checkbox"/> |

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Global Resource Issues in Oceanography REM 370 (~~3~~) (4)

Introduces principles of oceanography, including ocean circulation, ocean carbon cycling, nutrients and biological productivity, oceans and the climate system, and ocean resource contributions to global food supply. Provides basic understanding of ocean resource management including transportation, recreation, fisheries, and mining. Prerequisite: ~~EASC 100~~, EVSC 100, or GEOG 111, or REM 100-, and 45 units.

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

Fall 2019

RATIONALE (must be included)

The purpose of the unit change is to increase contact lecture hours from 2 hours to 3 hours with professor for conveying more content.

EASC 100 is no longer offered.

45 units was added to provide consistency with REM third year courses.

COURSE SUBJECT NUMBER TITLE

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

| | | | | | |
|---------------|--------------------------|-------------|-------------------------------------|----------------------|-------------------------------------|
| Course number | <input type="checkbox"/> | Units | <input type="checkbox"/> | Prerequisite | <input type="checkbox"/> |
| Title | <input type="checkbox"/> | Description | <input checked="" type="checkbox"/> | Equivalent Statement | <input checked="" type="checkbox"/> |

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~~An examination of the abiotic and biotic factors that control the distribution and development of plant communities, including climatic and geological change. An introduction to the planetary biosphere, its living organisms, and their interactions with each other and the Earth system.~~ Prerequisite: GEOG 111. ~~Students with credit for BISC 204 may not take this course for further credit.~~

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

RATIONALE (must be included)

We have made the changes for the following reasons:
Description: GEOG 215 has been taught by a new instructor (Schmidt) for the past few years following resignation of a faculty member. The course description needs updating to reflect the course content of the new instructor, and appropriate preparation for upper division GEOG and REM courses for which it is an articulated prerequisite.
Equivalency: Following a review of the content of GEOG 215 and BISC 204, GEOG has agreed with BISC that the two courses are not equivalent and thus students can take both for credit. BISC is making similar changes to their course descriptions.

| | | | | | |
|-----------------------|------|---------------|-----|--------------|----------------------------------|
| COURSE SUBJECT | EVSC | NUMBER | 305 | TITLE | Methods in Environmental Science |
|-----------------------|------|---------------|-----|--------------|----------------------------------|

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

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|---------------|--------------------------|-------------|-------------------------------------|----------------------|-------------------------------------|
| Course number | <input type="checkbox"/> | Units | <input checked="" type="checkbox"/> | Prerequisite | <input checked="" type="checkbox"/> |
| Title | <input type="checkbox"/> | Description | <input type="checkbox"/> | Equivalent Statement | <input type="checkbox"/> |

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Introduces EVSC students to lab and field methods used in the study of Environmental Science. Prerequisite: EVSC 100 and 50 units of credit in the environmental science program. Students with credit for EVSC 205 or EVSC 491W may not take this course for further credit.

Units: ~~3~~4

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

Spring 2020

RATIONALE (must be included)

The course was renumbered to EVSC 305 from EVSC 205. The prerequisite for EVSC 205 was EVSC 100, which was rolled over to EVSC 305. This opened the possibility for students to take the upper division course in their first or second year. Requiring 50 units will encourage taking this course in 3rd year.

Changing the units from three to four units better reflects the 4 contact hours per week.

COURSE SUBJECT NUMBER TITLE

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

| | | | | | |
|---------------|-------------------------------------|-------------|--------------------------|----------------------|--------------------------|
| Course number | <input type="checkbox"/> | Units | <input type="checkbox"/> | Prerequisite | <input type="checkbox"/> |
| Title | <input checked="" type="checkbox"/> | Description | <input type="checkbox"/> | Equivalent Statement | <input type="checkbox"/> |

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Title change: Evolving Earth

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

RATIONALE (must be included)

Historical geology is typically taught with a focus on the scientific history of geology. In contrast, this course focuses on the geological evolution of the Earth and as such is more accurately represented by "Evolving Earth".

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|-----------------------|-----|---------------|-----|--------------|--|
| COURSE SUBJECT | MBB | NUMBER | 427 | TITLE | Immune System II: Immune Responses in Health and Disease |
|-----------------------|-----|---------------|-----|--------------|--|

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

| | | | | | |
|---------------|-------------------------------------|-------------|-------------------------------------|----------------------|--------------------------|
| Course number | <input type="checkbox"/> | Units | <input type="checkbox"/> | Prerequisite | <input type="checkbox"/> |
| Title | <input checked="" type="checkbox"/> | Description | <input checked="" type="checkbox"/> | Equivalent Statement | <input type="checkbox"/> |

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TITLE: ~~Immune System II:~~ Immune Responses in Health and Disease

Defects in the immunologic response to bacterial, viral and parasitic infections. The mechanisms of action of vaccines. The causes of immune-mediated diseases, such as autoimmune diseases, hypersensitivity reactions (including asthma and allergy) and organ transplant rejection. The reaction of the immune system to cancer and immunotherapy for cancer. Prerequisite: one of MBB 326, HSCI 326, MBB 426 or HSCI 426, with a minimum grade of C, or permission of the instructor. Students with credit for HSCI 427 cannot take MBB 427 for credit.

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

Fall 2019

RATIONALE (must be included)

Currently MBB and FHS jointly offer two 400-level immunology courses, MBB/HSCI 426-4 (Immune System I: Basis of Innate and Adaptive Immunity) and MBB/HSCI 427-3 (Immune System II: Immune Responses in Health and Disease). MBB/HSCI 426-4 is being changed to a 3-unit 300-level Introductory Immunology Course, requiring the prerequisites for MBB/HSCI 427-3 to be revised as indicated. This change will give students more flexibility in their 400-level courses.

COURSE SUBJECT NUMBER TITLE

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

| | | | | | |
|---------------|--------------------------|-------------|--------------------------|----------------------|--------------------------|
| Course number | <input type="checkbox"/> | Units | <input type="checkbox"/> | Prerequisite | X |
| Title | <input type="checkbox"/> | Description | X | Equivalent Statement | <input type="checkbox"/> |

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Recent research articles on the molecular mechanisms underlying cellular activities, genomics and bioinformatics or ~~on~~ the structure, function and interactions of macromolecules will be presented and discussed by students and faculty. This course will be available for MBB undergraduates to take once for undergraduate credit and will be offered in conjunction with MBB 821 (Cell and Molecular Biology), ~~822, 823, 841~~ (Genomics and Bioinformatics) or 861 (Biomolecular Structure and Function), ~~862, or 863~~. Prerequisite: permission of the instructor.

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

RATIONALE (must be included)

The description has been updated to reflect the names/numbers/focus of the three graduate colloquium courses that MBB 471 is associated with.

The prerequisite of permission of the instructor has been added.

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|-----------------------|-----|---------------|-------|--------------|--|
| COURSE SUBJECT | MBB | NUMBER | 496-6 | TITLE | Independent Study Semester Joint Honours MBB-BUS or CMPT-MBB |
|-----------------------|-----|---------------|-------|--------------|--|

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

| | | | | | |
|---------------|-------------------------------------|-------------|--------------------------|----------------------|--------------------------|
| Course number | <input type="checkbox"/> | Units | <input type="checkbox"/> | Prerequisite | <input type="checkbox"/> |
| Title | <input checked="" type="checkbox"/> | Description | <input type="checkbox"/> | Equivalent Statement | <input type="checkbox"/> |

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TITLE: ~~Independent~~ Individual Study Semester Joint Honours MBB-BUS or CMPT-MBB

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

Fall 2019

RATIONALE (must be included)

Change title to make it consistent with other Individual Study Semester courses (MBB 481, 482, 482, 491, 492).

COURSE SUBJECT NUMBER TITLE

TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

Course number Units Prerequisite
 Title Description Equivalent Statement

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TITLE: ~~Independent~~ Individual Study Semester

EFFECTIVE TERM AND YEAR FOR CHANGES

Fall, Spring, Summer and year (please enter in textbox)

RATIONALE (must be included)

Change title to make it consistent with other Individual Study Semester courses (MBB 481, 482, 482, 491, 492).