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MEMORANDUM

ATTENTION Senate
FROM Paul Kingsbury, Vice-Chair
RE: Senate Committee on Undergraduate Studies
Course Changes (SCUS 25-123)

DATE September 12, 2025
PAGES 1/2

For information:

Acting under delegated authority at its meeting of September 11, 2025 SCUS approved the following curriculum revisions effective Summer 2026.

a. Faculty of Applied Sciences

1. School of Engineering Science

(i) Prerequisite change for ENSC 225

2. School of Mechatronics Systems Engineering *(Fall 2026)*

(i) Prerequisite change for MSE 310

3. School of Sustainable Energy Engineering

(i) Equivalent statement changes for SEE 100
(ii) Prerequisite change for SEE 225, 251, 332, 351, and 352

b. Beedie School of Business

(i) Prerequisite change for BUS 439 and 462

c. Faculty of Science

1. Department of Biological Sciences

   (i) Prerequisite changes for BISC 306, 308, 309, 313, 318, 360W, 407, 410, 412, 413, 420, and 441

2. Department of Biomedical Physiology and Kinesiology *(Fall 2026)*

   (i) Prerequisite change for BPK 351
   (ii) Title, prerequisite, and equivalent statement changes for BPK 405

3. Department of Earth Sciences

   (i) Equivalent statement change for EASC 106 *(Fall 2026)*

4. Department of Mathematics

   (i) Deletion of MATH 160W and 178W

Senators wishing to consult a more detailed report of curriculum revisions may do so on the Senate Document Repository at https://www.sfu.ca/senate/documents.html

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

COURSE MODIFICATION FORM

COURSE SUBJECT ENSC **NUMBER** 225 **TITLE** Microelectronics I

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

Course number	☐	Units	☐	Prerequisite	☒
Title	☐	Description	☐	Equivalent Statement	☐

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: (ENSC 220 or MSE 250 or SEE230), MATH 232, and (MATH 260 or MATH 310), all with a minimum grade of C-.

EFFECTIVE TERM AND YEAR FOR CHANGES
Fall, Spring, Summer and year (please enter in textbox)

Summer 2026

RATIONALE (must be included)

SEE230 is equivalent to ENSC220.

COURSE SUBJECT MSE **NUMBER** 310 TITLE Sensors and Actuators

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

Course number	☐	Units	☐	Prerequisite	☒
Title	☐	Description	☐	Equivalent Statement	☐

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: ~~MSE 221, MSE 222~~, MSE 224, MSE 251, MSE 280. Students with credit for ENSC 387 may not take MSE 310 for further credit.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Fall 2026

RATIONALE (must be included)

MSE 224 replaces the former MSE 221 following course updates and renumbering.

MSE 222 is removed as a prerequisite. The current content of MSE 310 focuses on sensors, actuators, and drive electronics, with no significant dependence on rigid-body dynamics. Removing MSE 222 as a prerequisite can help reduce scheduling bottlenecks and support timely student progression through the program.

COURSE SUBJECT	SEE	NUMBER	100	TITLE	Engineering Graphics and Software for Design

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

Course number	☐	Units	☐	Prerequisite	☐
Title	☐	Description	☐	Equivalent Statement	☒

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).

Introduction to graphical communication in the context of engineering design. Students learn to think and communicate visually. With the use of computer aided design (CAD) tools, students learn the theory and practice of design by dissecting, graphically representing, and redesigning products. Students with credit for ENSC 204 or MSE 100 may not take this course for further credit.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Summer 2026

RATIONALE (must be included)

Currently, there is a one-way equivalency statement. The equivalency was not considered in the past due to a mismatch in the number of credits, but this issue has now been rectified.

COURSE SUBJECT SEE **NUMBER** 225 **TITLE** Fluid Mechanics

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

Course number	☐	Units	☐	Prerequisite	☒
Title	☐	Description	☐	Equivalent Statement	☐

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).

The fundamentals of fluid mechanics for engineers, emphasizing the basics of fluid statics and fluid motion, with applications in energy system engineering. Prerequisite: PHYS 140, MATH 251, ~~(~~MATH 260 ~~or MATH 310)~~. Students with credit for ENSC 283 or MSE 223 may not take this course for further credit.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Summer 2026

RATIONALE (must be included)

This change was triggered by the school's curriculum review process and a call to the faculty members to review and update the prerequisite requirements for the courses they teach. Math 310 is no longer in the SFU curriculum.

COURSE SUBJECT	SEE	NUMBER	251	TITLE	Electric Machines and Energy Conversion

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

Course number	☐	Units	☐	Prerequisite	☒
Title	☐	Description	☐	Equivalent Statement	☐

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).

Principles, operation, and analysis of three phase systems, magnetic circuits, transformers and electromechanical energy conversion systems and their applications. Prerequisite: SEE 230, ~~SEE 221, (~~MATH 260 ~~or MATH 310)~~.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Summer 2026

RATIONALE (must be included)

This change was triggered by the school's curriculum review process and a call to the faculty members to review and update the prerequisite requirements for the courses they teach. Requested by the instructor. SEE 221 is considered an irrelevant prerequisite by the course instructor. Math 260 creates a duplicate as it is a corequisite to SEE 230. Math 310 is no longer in the SFU curriculum.

COURSE SUBJECT	SEE	NUMBER	332	TITLE	Power Systems Analysis and Design

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

Course number	☐	Units	☐	Prerequisite	☒
Title	☐	Description	☐	Equivalent Statement	☐

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).

Interconnected power systems including generators, transformers, electric motors and transmission lines; active and reactive power flow; symmetrical components; symmetrical and unsymmetrical short circuit fault calculations; protection systems, circuit breakers, transient stability, and grid voltage and frequency control. Labs, field trips and projects related to power grid operation, control, and design. Prerequisite: SEE 251~~, SEE 331~~.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Summer 2026

RATIONALE (must be included)

This change was triggered by the school's curriculum review process and a call to the faculty members to review and update the prerequisite requirements for the courses they teach. SEE 331 is removed from the prerequisite requirements per the instructor's request. The same instructor has taught both SEE 331 and SEE 332.

COURSE SUBJECT SEE **NUMBER** 351 **TITLE** Bioprocess Engineering Systems

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

Course number	☐	Units	☐	Prerequisite	☒
Title	☐	Description	☐	Equivalent Statement	☐

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).

Combines biotechnology and engineering for materials and energy harvesting for a broad range of industrial and environmental applications. Offers an in-depth understanding of underlying principles of bioprocesses, which leads to design and operation of a variety of innovative biosensors, control systems and full-scale bioreactors. Sustainable engineering applications include food processing and preservation, biofuel production, and energy generation from waste streams. Prerequisite: ~~(~~MATH 260 ~~or MATH 310)~~, ~~and~~ SEE 224, and SEE 225. Corequisite: SEE 324. MSE students who completed MSE 321 can take this course upon approval of the course instructor.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Summer 2026

RATIONALE (must be included)

This change was triggered by the school's curriculum review process and a call to the faculty members to review and update the prerequisite requirements for the courses they teach. SEE 225, Fluid Mechanics, is added as a prerequisite. Fluid properties and non-dimensional parameters are essential to bioreactor design. Math 310 is no longer part of the SFU curriculum and has been removed from the prerequisite.

COURSE SUBJECT	SEE	NUMBER	352	TITLE	Applied Thermodynamics and Energy Conversion

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

Course number	☐	Units	☐	Prerequisite	☒
Title	☐	Description	☐	Equivalent Statement	☐

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).

Application of thermodynamics, chemistry, and transport physics to energy conversion technologies and systems. Analysis of energy conversion systems with emphasis on efficiency, performance, and environmental impact. Prerequisite: ~~SEE 222,~~ SEE 224.

EFFECTIVE TERM AND YEAR FOR CHANGES
Fall, Spring, Summer and year (please enter in textbox)

Summer 2026

RATIONALE (must be included)

This change was triggered by the school's curriculum review process and a call to the faculty members to review and update the prerequisite requirements for the courses they teach. SEE 222 can be removed from the prerequisites of SEE 352 due to its lack of relevance to the course content.

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

COURSE MODIFICATION FORM

COURSE SUBJECT BUS **NUMBER** 439 **TITLE** Analytics Project (3)

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

Course number	☐	Units	☐	Prerequisite	☒
Title	☐	Description	☐	Equivalent Statement	☐

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).

BUS 439 - Analytics Project (3)

Examines complex, real-world decision making issues using an evidence-based approach that employs decision making strategies involving statistics, data management, analytics, and decision theory. Through a major decision making project within the community, students will experience first-hand the process of consultation, data acquisition, analysis, and recommendation. The data in the project will be proprietary to the community partners and students thus need to sign a non-disclosure agreement. A non-disclosure agreement template is attached to the course outline. The results of the project will remain the intellectual property of the students; notwithstanding, those results will be shared with the data provider. Students also have an option to complete a project with non-proprietary data. Prerequisite: BUS 345 or BUS 440, BUS 360W, BUS 437 or BUS 441, BUS 445, BUS 462, and BUS 464, all with a minimum grade of C-; 90 units; OR Data Science majors with BUS 360W, ~~BUS 445~~ **(BUS 445 or BUS 462)**, CMPT 354, all with a minimum grade of C- and 90 units.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Summer 2026

RATIONALE (must be included)

Adding BUS 462 as an option for Data Science students is intended to support the recent growth of the Data Science major. The course applies machine learning algorithms with an emphasis on data storytelling, similar to BUS 445 but through different contexts: BUS 445 in marketing and BUS 462 in management information systems. Allowing students to choose another option will help reduce potential bottlenecks in BUS 445 and offer greater flexibility, while maintaining the program's coverage of the applied aspect of data science.

COURSE SUBJECT BUS **NUMBER** 462 **TITLE** Business Analytics (3)

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

Course number	☐	Units	☐	Prerequisite	☒
Title	☐	Description	☐	Equivalent Statement	☐

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: ~~BUS 336,~~ BUS 360W and~~;~~ BUS 362, ~~all~~ both with a minimum grade of C-~~;~~, 60 units, and corequisite: BUS 336; OR data science majors with BUS 360W with a minimum grade of C-, and 60 units. ~~Corequisite: BUS 336 can be taken concurrently.~~

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Summer 2026

RATIONALE (must be included)

Adding BUS 462 as an option for Data Science students is intended to support the recent growth of the Data Science major. The course applies machine learning algorithms with an emphasis on data storytelling, similar to BUS 445 but through different contexts: BUS 445 in marketing and BUS 462 in management information systems. Allowing students to choose another option will help reduce potential bottlenecks in BUS 445 and offer greater flexibility, while maintaining the program's coverage of the applied aspect of data science.

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

COURSE MODIFICATION FORM

COURSE SUBJECT BISC | 306 | **TITLE** Invertebrate Biology

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

Course number	☐	Units	☐	Prerequisite	☒
Title	☐	Description	☐	Equivalent Statement	☐

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: BISC 101, 102, and (BISC 204 or GEOG 215 or REM 211), all with a minimum grade of C-.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Summer 2026

RATIONALE (must be included)

It has been determined that REM 211 is an acceptable substitute for BISC 204, if accompanied by BISC 101 and/or BISC 102. By allowing either BISC 204 or REM 211 to be used as a prerequisite for upper division courses, we increase flexibility for students in either program.

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

COURSE MODIFICATION FORM

COURSE SUBJECT	BISC	308	TITLE	Environmental Toxicology: An Ecological Perspective

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

Course number	☐	Units	☐	Prerequisite	☒
Title	☐	Description	☐	Equivalent Statement	☐

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: BISC 101, 102, and (BISC 204 or GEOG 215 or REM 211), all with a minimum grade of C-.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Summer 2026

RATIONALE (must be included)

It has been determined that REM 211 is an acceptable substitute for BISC 204, if accompanied by BISC 101 and/or BISC 102. By allowing either BISC 204 or REM 211 to be used as a prerequisite for upper division courses, we increase flexibility for students in either program.

COURSE SUBJECT BISC | 309 | **TITLE** Conservation Biology

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

Course number	☐	Units	☐	Prerequisite	☒
Title	☐	Description	☐	Equivalent Statement	☐

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: BISC 101, 102, and (BISC 204 or REM 211), all with a minimum grade of C-.

EFFECTIVE TERM AND YEAR FOR CHANGES
Fall, Spring, Summer and year (please enter in textbox)

Summer 2026

RATIONALE (must be included)

It has been determined that REM 211 is an acceptable substitute for BISC 204, if accompanied by BISC 101 and BISC 102. By allowing either BISC 204 or REM 211 to be used as a prerequisite for upper division courses, we increase flexibility for students in either program.

COURSE SUBJECT	BISC	313	TITLE	Environmental Toxicology: A Mechanistic Perspective

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

Course number	☐	Units	☐	Prerequisite	☒
Title	☐	Description	☐	Equivalent Statement	☐

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: BISC 101 and (BISC 204~~,~~ or BISC 205~~,~~ or GEOG 215~~,~~ or MBB 231 or REM 211), both with a minimum grade of C-.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Summer 2026

RATIONALE (must be included)

It has been determined that REM 211 is an acceptable substitute for BISC 204, if accompanied by BISC 101 and/or BISC 102. By allowing either BISC 204 or REM 211 to be used as a prerequisite for upper division courses, we increase flexibility for students in either program.

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

COURSE MODIFICATION FORM

COURSE SUBJECT BISC | 318 | **TITLE** Parasitology

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

Course number	☐	Units	☐	Prerequisite	☒
Title	☐	Description	☐	Equivalent Statement	☐

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: BISC 101, 102, and (BISC 204 or HSCI 212 or REM 211), all with a minimum grade of C-

EFFECTIVE TERM AND YEAR FOR CHANGES
Fall, Spring, Summer and year (please enter in textbox)

Summer 2026

RATIONALE (must be included)

It has been determined that REM 211 is an acceptable substitute for BISC 204, if accompanied by BISC 101 and/or BISC 102. By allowing either BISC 204 or REM 211 to be used as a prerequisite for upper division courses, we increase flexibility for students in either program.

COURSE SUBJECT	BISC	360W	TITLE	Techniques in Ecology and Evolution

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

Course number	☐	Units	☐	Prerequisite	☒
Title	☐	Description	☐	Equivalent Statement	☐

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: BISC 202, (BISC 204 or GEOG 215 or REM 211), and STAT 201, all with a minimum grade of C-. Writing.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Summer 2026

RATIONALE (must be included)

It has been determined that REM 211 is an acceptable substitute for BISC 204, if accompanied by BISC 101 and/or BISC 102 (prerequisites for BISC 202). By allowing either BISC 204 or REM 211 to be used as a prerequisite for upper division courses, we increase flexibility for students in either program.

SFU

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

COURSE MODIFICATION FORM

COURSE SUBJECT BISC | 407 | **TITLE** Population Dynamics

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

Course number	☐	Units	☐	Prerequisite	☒
Title	☐	Description	☐	Equivalent Statement	☐

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: BISC 102, (BISC 204 or GEOG 215 or REM 211), and MATH 154, all with a minimum grade of C-

EFFECTIVE TERM AND YEAR FOR CHANGES
Fall, Spring, Summer and year (please enter in textbox)

Summer 2026

RATIONALE (must be included)

It has been determined that REM 211 is an acceptable substitute for BISC 204, if accompanied by BISC 101 and/or BISC 102. By allowing either BISC 204 or REM 211 to be used as a prerequisite for upper division courses, we increase flexibility for students in either program.

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

COURSE MODIFICATION FORM

COURSE SUBJECT BISC | 410 | **TITLE** Behavioural Ecology

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

Course number	☐	Units	☐	Prerequisite	☒
Title	☐	Description	☐	Equivalent Statement	☐

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: BISC 102 and (BISC 204 or GEOG 215 or REM 211), both with a minimum grade of C-

EFFECTIVE TERM AND YEAR FOR CHANGES
Fall, Spring, Summer and year (please enter in textbox)

Summer 2026

RATIONALE (must be included)

It has been determined that REM 211 is an acceptable substitute for BISC 204, if accompanied by BISC 101 and/or BISC 102. By allowing either BISC 204 or REM 211 to be used as a prerequisite for upper division courses, we increase flexibility for students in either program.

SFU

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

COURSE MODIFICATION FORM

COURSE SUBJECT BISC | 412 | **TITLE** Aquatic Ecology

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

Course number	☐	Units	☐	Prerequisite	☒
Title	☐	Description	☐	Equivalent Statement	☐

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: BISC 101, 102, and (BISC 204 or GEOG 215 or REM 211), all with a minimum grade of C-.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Summer 2026

RATIONALE (must be included)

It has been determined that REM 211 is an acceptable substitute for BISC 204, if accompanied by BISC 101 and/or BISC 102. By allowing either BISC 204 or REM 211 to be used as a prerequisite for upper division courses, we increase flexibility for students in either program.

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

COURSE MODIFICATION FORM

COURSE SUBJECT BISC | 413 | **TITLE** Fisheries Biology

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

Course number	☐	Units	☐	Prerequisite	☒
Title	☐	Description	☐	Equivalent Statement	☐

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: BISC 101, 102, and (BISC 204 or REM 211), all with a minimum grade of C-.

EFFECTIVE TERM AND YEAR FOR CHANGES
Fall, Spring, Summer and year (please enter in textbox)

Summer 2026

RATIONALE (must be included)

It has been determined that REM 211 is an acceptable substitute for BISC 204, if accompanied by BISC 101 and/or BISC 102. By allowing either BISC 204 or REM 211 to be used as a prerequisite for upper division courses, we increase flexibility for students in either program.

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

COURSE MODIFICATION FORM

COURSE SUBJECT BISC | 420 | **TITLE** Community Ecology

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

Course number	☐	Units	☐	Prerequisite	☒
Title	☐	Description	☐	Equivalent Statement	☐

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: BISC 204 or GEOG 215 or (BISC 101, 102 and REM 211), all with a minimum grade of C-

EFFECTIVE TERM AND YEAR FOR CHANGES
Fall, Spring, Summer and year (please enter in textbox)

Summer 2026

RATIONALE (must be included)

It has been determined that REM 211 is an acceptable substitute for BISC 204 so long as the BISC 101 and 102 prerequisites have also been taken. By allowing either course to be used as a prerequisite for upper division courses, we increase flexibility for students in either program.

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

COURSE MODIFICATION FORM

COURSE SUBJECT BISC | 441 | **TITLE** Evolution of Health and Disease

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

Course number	☐	Units	☐	Prerequisite	☒
Title	☐	Description	☐	Equivalent Statement	☐

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: BISC 202 or 204 or (BISC 101, BISC 102, and REM 211), all ~~both~~ with a minimum grade of C-. Recommended: BISC 300

EFFECTIVE TERM AND YEAR FOR CHANGES
Fall, Spring, Summer and year (please enter in textbox)

Summer 2026

RATIONALE (must be included)

It has been determined that REM 211 is an acceptable substitute for BISC 204, if accompanied by BISC 101 and/or BISC 102. By allowing either BISC 204 or REM 211 to be used as a prerequisite for upper division courses, we increase flexibility for students in either program.

COURSE SUBJECT BPK **NUMBER** 351 **TITLE** Practicum I

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

Course number	☐	Units	☐	Prerequisite	☒
Title	☐	Description	☐	Equivalent Statement	☐

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: ~~Students must complete Bridging Online (visit www.sfu.ca/coop/bol for further details) at least two terms before co-op placement. Students must then apply to the BPK co-op program by Week 1 of the term prior; a minimum of 45 units, BPK 142, plus at least two other BPK courses and have a minimum GPA of 2.50.~~ Approval into the science co-op program.

EFFECTIVE TERM AND YEAR FOR CHANGES
Fall, Spring, Summer and year (please enter in textbox)

Fall 2026

RATIONALE (must be included)

The only prerequisite for co-op courses like BPK 351 should be admission into the program, so that students can enroll themselves as they do for other courses. Otherwise, manual adds are required, which is highly time consuming. Prerequisite removal has been requested by the Co-operative Education Manager, Natalia Brussard.

COURSE SUBJECT	BPK	NUMBER	405	TITLE	Clinical Exercise Physiology I: Cardiorespiratory and Metabolic Disorders

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

Course number	☐	Units	☐	Prerequisite	☒
Title	☒	Description	☐	Equivalent Statement	☒

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).

Clinical Exercise Physiology ~~I: Cardiorespiratory and Metabolic Disorders~~

A study of the clinical aspects of exercise physiology by thoroughly examining the relationship between exercise and chronic disease. For each chronic disease state and condition, this course covers its physiology, pathophysiology, and pharmacotherapy along with exercise testing, prescription, safety, and programming issues. Prerequisite: BPK ~~305, 306, 324 or 326, 344~~ 310, 343. Recommended: BPK 305, 340. Students who have taken BPK 421 - Clinical Exercise Physiology I: Cardiorespiratory and Metabolic Disorders may not take this course for further credit.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Fall 2026

RATIONALE (must be included)

Change to title reflects a clarification and simplification since there is no "Clinical Exercise Physiology II" that follows this course.

Updated description wording to reflect current course offering with correct pre-requisites. This course was approved circa 2010 in principle for a new KIN concentration at the Surrey campus that did not receive funding; thus, some of the pre-requisites (e.g. 344 were not developed). A similar course has been offered as BPK 421 (special topics) and this modified course (BPK405) is important for KIN students to meet the required courses to become a practicing member with British Columbia Association of Kinesiologists (BCAK).

COURSE SUBJECT EASC **NUMBER** 106 **TITLE** Earth Through Time

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

Course number	☐	Units	☐	Prerequisite	☐
Title	☐	Description	☐	Equivalent Statement	☒

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).

An introduction to the changes that the Earth has experienced, from its initial formation to the present day. Topics include changes in plate tectonic style, mountain building periods, glaciations during Earth history, formation of life, the fossil record and evolution, major extinctions, and the rise of man. Students with credit for EASC 210 may not take this course for further credit. Breadth-Science.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Fall 2026

RATIONALE (must be included)

EASC 210 is being deleted and replaced with EASC 106 in the programs. Text deleted to reflect that EASC 106 may be used towards program requirements. EASC 106 (three 1-hour lectures) covers the same material as EASC 210 (one 2-hour lecture and one 3-hour lab). Aspects of the lab for EASC 210 are incorporated into EASC 106 (e.g., exercises on relative age dating and lithostratigraphic correlation), making these courses effectively equivalent. To reduce redundancy, the proposed course changes address the deletion of EASC 210 and the inclusion of EASC 106 in the programs. EASC 210 will be temporarily withdrawn from the calendar.

COURSE SUBJECT MATH **NUMBER** 160W **TITLE** Mathematics in Action

RATIONALE (must be included)

The Department of Mathematics requests the deletion of MATH 160W. This course has not been offered in over 15 years and there are no plans to offer them in the near future. These courses are not required for any program.

EFFECTIVE TERM AND YEAR FOR CHANGES
Fall, Spring, Summer and year (enter in textbox) Summer 2026

PLEASE DO THE FOLLOWING:

1. Attach a program impact list along with your course deletion form. Contact the Senate and Academic Services Office (sfucal@sfu.ca) for a program impact list.
2. Once you have the program impact list, please review how deleting this course affects each program's requirements.
3. If more substantial changes are required to programs as a result of this deletion, please also submit a program modification form.
4. If no further changes other than deletion is required in program requirements, please list those programs in the box below:

5. Lastly, please conduct a course impact analysis, which reviews the effect of a course number change and/or course deletion on course prerequisites. For instructions on how to do a course impact analysis, please visit our page and click on "deleting a course" and review Step 2. Course Impact Analysis.

SFU

SENATE COMMITTEE ON
UNDERGRADUATE STUDIES

EXISTING COURSE DELETION FORM

COURSE SUBJECT MATH **NUMBER** 178W **TITLE** Fractals and Chaos

RATIONALE (must be included)

The Department of Mathematics requests the deletion of MATH 178W. This course has not been offered in over 15 years and there are no plans to offer them in the near future. These courses are not required for any program.

EFFECTIVE TERM AND YEAR FOR CHANGES
Fall, Spring, Summer and year (enter in textbox) Summer 2026

PLEASE DO THE FOLLOWING:

1. Attach a program impact list along with your course deletion form. Contact the Senate and Academic Services Office (sfucal@sfu.ca) for a program impact list.
2. Once you have the program impact list, please review how deleting this course affects each program's requirements.
3. If more substantial changes are required to programs as a result of this deletion, please also submit a program modification form.
4. If no further changes other than deletion is required in program requirements, please list those programs in the box below:

5. Lastly, please conduct a course impact analysis, which reviews the effect of a course number change and/or course deletion on course prerequisites. For instructions on how to do a course impact analysis, please visit our page and click on "deleting a course" and review Step 2. Course Impact Analysis.