



OFFICE OF THE ASSOCIATE VICE-PRESIDENT, ACADEMIC

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MEMORANDUM

ATTENTION	Senate	DATE	September 14, 2018
FROM	Wade Parkhouse, Chair	PAGES	1/2
	Senate Committee on Undergraduate Studies		
RE:	Course Changes (SCUS 18-51)		

For information:

Acting under delegated authority at its meeting of September 13, 2018 SCUS approved the following curriculum revisions effective Summer 2019.

a. Faculty of Applied Sciences**1. School of Mechatronic Systems Engineering**

- (i) Description change for MSE 211
- (ii) Prerequisite change for MSE 220, 312, 410, 411 and 450
- (iii) Title change for MSE 425

b. Beedie School of Business

- (i) Description change for BUS 425
- (ii) Prerequisite change for BUS 217W, 345, 360W, 362, 401, 437, 439, 440, 445, 470

c. Faculty of Communication, Art and Technology**1. School of Communication**

- (i) Description change for CMNS 496

2. School of Interactive Arts and Technology

- (i) Description change for IAT 375

d. Faculty of Education

- (i) Prerequisite change for EDUC 382 and 441

e. Faculty of Health Sciences

- (i) Equivalent Statement change for HSCI 460
- (ii) Description change for HSCI 452

f. Faculty of Science

1. Department of Biomedical Physiology and Kinesiology

- (i) Prerequisite change for BPK 307 (Spring 2019)

2. Department of Molecular Biology and Biochemistry

- (i) Prerequisite change for MBB 302-B(s) (Fall 2019)
- (ii) Prerequisite change for MBB 342 and 432

3. Department of Statistics and Actuarial Science

- (i) Prerequisite change for STAT 430 (Fall 2019)



COURSE SUBJECT	MSE	NUMBER	211	TITLE	Computational Method for Engineers
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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).

REPEAT FOR CREDIT RULES:

Total Units Allowed: -9- 3

EFFECTIVE TERM AND YEAR FOR CHANGES

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

SUMMER 2019

RATIONALE (must be included)

This is to correct the typo error for the total number of units allowed to repeat. To be aligned with the University policy on the number of times a student may repeat a course which is one (1).

COURSE SUBJECT	MSE	NUMBER	220	TITLE	Engineering Materials
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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: CHEM 120 or 121; PHYS 140 144 or 120 121. Students with credit for ENSC 231 or ENSC 330 may not take MSE 220 for further credit.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Summer 2019

RATIONALE (must be included)

Typo is corrected.

COURSE SUBJECT **MSE** NUMBER **312** TITLE **Mechatronics Design II****TYPE OF CHANGES.** Please type 'X' for the appropriate revision(s):

Course 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 110 (or ENSC 182), MSE 320 (or ENSC 382), MSE 380 (or ENSC 381). ~~MSE 320 and MSE 380 may be taken concurrently.~~ Students with credit for ENSC 384 may not take MSE 312 for further credit.

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

Summer 2019

RATIONALE (must be included)

MSE 320 and MSE 380 are not offered in the same semester.

COURSE SUBJECT	MSE	NUMBER	410	TITLE	Capstone Design Technical Project I
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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: ~~100 units and completion of two co-op terms (MSE 293/294 and MSE 394). Completion of at least 24 credit units from the upper division list of MSE curriculum courses and completion of two co-op terms (MSE 293/294 and MSE 393/394). Must not be taken concurrently with MSE 493/MSE 494. Students with credit for ENSC 441 405W may not take this course for further credit.~~

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

Summer 2019

RATIONALE (must be included)

The prerequisite list is refined to ensure that students have completed sufficient number of course before taking Capstone project course. Also, students must not concurrently take this course with the co-op course.

COURSE SUBJECT	MSE	NUMBER	411	TITLE	Capstone Design Technical Project II
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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 410: Capstone Design Technical Project I. Must not be taken concurrently with MSE 493/MSE 494. Students with credit for ENSC 440 may not take MSE 411 for further credit.

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

Summer 2019

RATIONALE (must be included)

The additional requirement is to ensure that students do not register concurrently for a co-op and MSE 411.

COURSE SUBJECT	MSE	NUMBER	450	TITLE	Real-Time and Embedded Control Systems
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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: Completion of at least 90 units including MSE 352 and MSE 381 (or ENSC 383) and a minimum of 80 credits. Students who have taken, or are currently enrolled in ENSC 351 or ENSC 451 cannot take MSE 450 for further credit.

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

Summer 2019

RATIONALE (must be included)

The segment "minimum of 80 credits" is redundant and we propose to remove it.

COURSE SUBJECT	MSE	NUMBER	425	TITLE	Nano Manufacturing for Nano-scale Devices
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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).

Nano Manufacturing for Nano-scale Devices

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

Summer 2019

RATIONALE (must be included)

The instructor of the course has requested to change the title of this course to reflect its actual content.



COURSE SUBJECT	BUS	NUMBER	425	TITLE	Co-op Practicum V
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TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):

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

This is the fifth term of work experience for students in the Co-operative Education Program. It provides an opportunity to integrate theory and practice. This course is open only to co-op students. The co-op program co-ordinator must be contacted at the beginning of the term prior to enrollment for this course. Units for this course do not count towards the units required for an SFU degree. This course may be repeated for credit.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Summer 2019

RATIONALE (must be included)

Students sometimes complete additional Co-op work terms and there is currently no way to indicate this on the transcript using a 400-level course. The 400-level course indicates that it was an additional (6th) Co-op completed later in the degree program.

COURSE SUBJECT **BUS** NUMBER **217W** TITLE **Critical Thinking in Business****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).

Examine and review today's global economy through critical analysis of differing perspectives. Develop and improve critical thinking and communication skills appropriate to the business environment. Prerequisite: BUS 201 and 15 units; OR 45 units and corequisite: BUS 202; OR approved Business Administration joint major, joint honours, or double degrees students with 45 units; OR Data Science majors with 15 units. Writing.

EFFECTIVE TERM AND YEAR FOR CHANGES
Fall, Spring, Summer and year (please enter in textbox)**Summer 2019**

RATIONALE (must be included)

When the Data Science program was created, we discussed course access and prerequisite waivers for a number of business courses for their students, but these were not updated in the calendar. We are now adding these adjusted prerequisites to the calendar to provide clearer messaging for students.

Some edits have been made for consistency with other business course prerequisites (removing the word "approved").

COURSE SUBJECT **BUS** NUMBER **345** TITLE **Marketing Research****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).

A course in the management of marketing research. The basics of the design, conduct, and analysis of marketing research studies. Prerequisite: BUS 343, 336; 45 units; OR Data Science majors with BUS 343 and 45 units. Students with credit for BUS 442 may not complete this course for further credit.

EFFECTIVE TERM AND YEAR FOR CHANGES
Fall, Spring, Summer and year (please enter in textbox)**Summer 2019**

RATIONALE (must be included)

When the Data Science program was created, we discussed course access and prerequisite waivers for a number of business courses for their students, but these were not updated in the calendar. We are now adding these adjusted prerequisites to the calendar to provide clearer messaging for students.

COURSE SUBJECT **BUS** NUMBER **360W** TITLE **Business Communication****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).

This course is designed to assist students to improve their written and oral communication skills in business settings. The theory and practice of business communication will be presented. Topics include analysis of communication problems, message character, message monitoring, message media. Exercises in individual and group messages and presentations will be conducted. Prerequisite: This course is only open to students admitted prior to Fall 2014 to the Business Administration major, honours, or second degree program and who have 45 units, OR to students admitted Fall 2014 - Summer 2017 to the Business Administration major, honours, or second degree program and who have 45 units and BUS 130 or 201 or 202 or 301, OR to students admitted Fall 2017 - onwards to the Business Administration major, honours, or second degree program and who have 45 units and BUS 130 or 201 or 202 or 301 and BUS 217W, OR to approved Business Administration joint major, joint honours, or double degree students with 45 units, OR to approved Management Systems Science or Actuarial Science majors with 45 units OR to Data Science majors with BUS 217W and 45 units. Students who have taken BUS 360 may not take this course for further credit. Writing.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Summer 2019

RATIONALE (must be included)

When the Data Science program was created, we discussed course access and prerequisite waivers for a number of business courses for their students, but these were not updated in the calendar. We are now adding these adjusted prerequisites to the calendar to provide clearer messaging for students.

Some edits have been made for consistency with other business course prerequisites (removing the word "approved").

There is also a typo letter (a missing "s") that should be added.

COURSE SUBJECT **BUS** NUMBER **362** TITLE **Business Process Analysis****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).

Prepares students to model, analyze and propose improvements to business processes. In the major project, students analyze a process within an organization and use current techniques and tools to propose changes and a supporting information system. Prerequisite: BUS 237; 45 units; OR Data Science majors with 45 units. Students with credit for BUS 394 may not take this course for further credit.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Summer 2019

RATIONALE (must be included)

When the Data Science program was created, we discussed course access and prerequisite waivers for a number of business courses for their students, but these were not updated in the calendar. We are now adding these adjusted prerequisites to the calendar to provide clearer messaging for students.

COURSE SUBJECT	BUS	NUMBER	401	TITLE	Developing Organizational Opportunities
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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 BUS 311 OR BUS 254 and 312, Bus BUS 340, Bus BUS 341, and 60 units. The course is only open to students in the Business Minor program.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Summer 2019

RATIONALE (must be included)

Students who take BUS 254 & BUS 312 before they get into the Business Minor receive a waiver for BUS 311 (and can take this pair of courses in place of BUS 311), so we would like to recognize this possibility in the BUS 401 prerequisite. This will also make it clear that students need both of BUS 254 & 312 to replace BUS 311 (not just one or the other).

We have also capitalized "BUS" in the prerequisites to be consistent in the calendar (it is capitalized in other course prereqs).



COURSE SUBJECT **BUS** NUMBER **437** TITLE **Decision Analysis in Business**

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).

A seminar in the use of Bayesian techniques in business decisions. Prerequisite: BUS 336, 360W; 60 units; OR Data Science majors with BUS 360W and 60 units.

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

Summer 2019

RATIONALE (must be included)

When the Data Science program was created, we discussed course access and prerequisite waivers for a number of business courses for their students, but these were not updated in the calendar. We are now adding these adjusted prerequisites to the calendar to provide clearer messaging for students.

COURSE SUBJECT **BUS** NUMBER **439** TITLE **Analytics Project****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).

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. Prerequisite: BUS 345 or BUS 440, BUS 360W, BUS 437 or BUS 441, BUS 445, BUS 462, and BUS 464; ~~BUS 345 or BUS 440; 90 units; OR Data Science majors with BUS 360W, BUS 445, and 90 units.~~

EFFECTIVE TERM AND YEAR FOR CHANGES
Fall, Spring, Summer and year (please enter in textbox)**Summer 2019**

RATIONALE (must be included)

When the Data Science program was created, we discussed course access and prerequisite waivers for a number of business courses for their students, but these were not updated in the calendar. We are now adding these adjusted prerequisites to the calendar to provide clearer messaging for students.

Other changes are to provide consistency among prerequisite language on Business courses

COURSE SUBJECT	BUS	NUMBER	440	TITLE	Simulation in Management Decision-making
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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).

Development and use of simulation models as an aid in making complex management decisions. Hands on use of business related tools for computer simulation. Issues related to design and validation of simulation models, the assessment of input data, and the interpretation and use of simulation output. Prerequisite: BUS 336, 360W, 60 units; OR Data Science majors with BUS 360W, 60 units.

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

Summer 2019

RATIONALE (must be included)

When the Data Science program was created, we discussed course access and prerequisite waivers for a number of business courses for their students, but these were not updated in the calendar. We are now adding these adjusted prerequisites to the calendar to provide clearer messaging for students.

COURSE SUBJECT **BUS** NUMBER **445** TITLE **Customer Analytics****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).

Exposes students to the art of using analytic tools from across the spectrum of data mining and modeling to provide powerful competitive advantage in business. Students will learn to recognize when a method should or should not be used, what data is required, and how to use the software tools. Areas covered include database marketing, geospatial marketing and fundamental strategic and tactical decisions such as segmentation, targeting and allocating resources to the marketing mix. Prerequisite: BUS 343, 336, 360W, 60 units; OR Data Science majors with BUS 343, 360W, and 60 units.

EFFECTIVE TERM AND YEAR FOR CHANGES
Fall, Spring, Summer and year (please enter in textbox)**Summer 2019**

RATIONALE (must be included)

When the Data Science program was created, we discussed course access and prerequisite waivers for a number of business courses for their students, but these were not updated in the calendar. We are now adding these adjusted prerequisites to the calendar to provide clearer messaging for students.



COURSE SUBJECT

BUS

NUMBER

470

TITLE

Business Applications of Game Theory

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).

Game theory is the systematic study of the strategic interactions between economic entities. This course introduces students to the basic concepts of game theory in strategic decision making in a business setting. Games with increasing complexity will be analyzed, with the emphasis on developing a student's ability to think analytically and recognize strategic interactions in strategic management scenarios. Prerequisite: 60 units; BUS 207 or ECON 201, BUS 360W.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Summer 2019

RATIONALE (must be included)

Students in Business programs may take either BUS 207 *or* ECON 201 for their degree requirements, and for the purposes of a Business program either of these courses may satisfy the prerequisites on Business courses.



COURSE SUBJECT CMNS NUMBER 496 TITLE Communication Practicum V

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 optional fifth term of work experience for students in the School of Communication Co-operative Education Program. Units from this course do not count towards the units required for an SFU degree. Prerequisite: CMNS 495. Graded as pass/fail (P/F).

This course may be repeated for additive credit.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Summer 2019

RATIONALE (must be included)

In some circumstances, students may be completing additional CMNS co-op work term(s) beyond the final course available.

COURSE SUBJECT IAT NUMBER 375 TITLE Practicum V

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).

Optional fifth term of work experience for students in the SIAT Co-operative Education Program. Units from this course do not count towards completion of an SFU degree. Graded as pass/fail. Prerequisite: IAT 374 (or WKT 400). This course may be repeated for additive credit.

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

Summer 2019

RATIONALE (must be included)

In some instances, students may complete additional co-op work terms beyond the final course available.



COURSE SUBJECT	EDUC	NUMBER	382	TITLE	Diversity in Education: Theories, Policies, Practices
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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: 60 units. ~~Students who have received credit for EDUC 441, cannot take EDUC 382 for further credit.~~

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

Summer 2019

RATIONALE (must be included)

Educ 382 and Educ 441 are two distinct courses with different content. It does not make sense to prevent students from taking both.

COURSE SUBJECT	EDUC	NUMBER	441	TITLE	Multicultural and Anti-racist Education
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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: EDUC 100, or EDUC 230, or EDUC 240, or EDUC 250, or EDUC 401/402
or Corequisite: EDUC 403. ~~Students with credit for EDUC 382: Diversity in Education: Theories, Policies, Practices may not take this course for further credit.~~

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

Summer 2019

RATIONALE (must be included)

Educ 382 and Educ 441 are two distinct courses with different content. It does not make sense to prevent students from taking both.

COURSE SUBJECT	HSCI	NUMBER	460	TITLE	Population and Public Health Advocacy
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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).

Students with credit for HSCI 471 under the title "Special Topics: Public Health Advocacy" may not take this course for further credit.

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

Summer, 2019

RATIONALE (must be included)

The revision identifies preclusions for students who have taken prior editions of this course as a special topics.

COURSE SUBJECT HSCI NUMBER 452 TITLE Practicum V

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).

This course may be repeated for additive credit.

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

Summer 2019

RATIONALE (must be included)

In some instances students may be completing additional co-op work terms beyond the final course available.

COURSE SUBJECT	BPK	NUMBER	307	TITLE	Human Physiology III
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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).

BPK 307 - Human Physiology III (3)

A detailed examination of the physiology and pathophysiology of the gastrointestinal, renal, endocrine, immune and reproductive systems. The course focuses on integration of physiological mechanisms at the molecular, cellular and systems levels. Prerequisite: [BPK 305](#). Corequisite: [BPK 306](#); **however, students who took BPK 306 prior to Fall 2017, cannot take this course.** Majors from outside BPK require [BPK 205](#) (or [BISC 305](#)), [MBB 231](#) (or [201](#)), [MATH 155](#) or [152](#) plus permission of the instructor.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Spring 2019

RATIONALE (must be included)

When BPK 307 was created the content of BPK 306 was also changed. The new version of BPK 306 (Fall 2017 onwards) was designed to be the prerequisite course for BPK 307. The old version of BPK 306 (prior to Fall 2017) is not adequate as a prerequisite for BPK 307 due to the substantial content change.

COURSE SUBJECT	MBB	NUMBER	302-B(S)	TITLE	Energy: From Cells to Society (3)
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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).

Energy sustains life, from early cells, through molecular machines and ecosystems, to industrial society. Social issues, such as the search for extraterrestrial life, obesity, death and climate change will provide context for understanding the science of energy. Energy flow drove the origin of life and is required to sustain life. From molecular machines to ecosystems, the capture and flow of energy defines life. Human use of fossil fuels is explored as a transformative evolutionary development. This course is only open to students in the Faculties of Applied Sciences, Arts and Social Sciences, Communication, Art and Technology, Education, Beedie School of Business and Health Sciences (Bachelor of Arts Degree Program only). Prerequisite: 45 units. Breadth - Science.

Environment,

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Fall 2019

RATIONALE (must be included)

The description has been revised for a more focused course, and to restrict enrolment. As a Science Breadth course, MBB 302 was originally open to all students. In the first offering (Summer 2018), approximately half the class were MBB or Biology Majors and half were non-Science students. The huge disparity in knowledge between the MBB/Biology students and non-Science students made it challenging to sustain the interests of all students and to provide assignments that could be graded fairly. Restricting this course to non-Science Majors who do not typically take life sciences courses will solve this problem and will improve the learning experience for these students.

COURSE SUBJECT	MBB	NUMBER	342-3	TITLE	Introductory Genomics and Bioinformatics
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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).

Major topics in genomics and bioinformatics, with integrated discussion of associated ethical/legal/social issues. An overview of laboratory and computer-based methods to study genomes, and their applications. Hands-on computer lab session providing an opportunity to use and experiment with bioinformatics software and databases utilized in genomics and bioinformatics research. Prerequisite: MBB 231, BISC 202 and either MBB 243 or 3 units of CMPT or equivalent, all with a minimum grade of C. Recommended: STAT 201 (or an equivalent statistics course) or STAT 270.

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

Summer 2019

RATIONALE (must be included)

MBB 243-3 (Data Analysis for Molecular Biology and Biochemistry) is a new course that can serve as a prereq for MBB 342 as an alternative to 3 units of CMPT.

COURSE SUBJECT	MBB	NUMBER	432-4	TITLE	Advanced Molecular Biology Techniques
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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).

MBB 432 - Advanced Molecular Biology Techniques (4)

Laboratory with accompanying lectures designed to give practical experience in advanced contemporary molecular biology techniques. Projects will involve recombinant gene and protein manipulations to investigate the dynamics of proteins within living cells. Prerequisite: ~~MBB 309W~~, MBB 308 and MBB 331, all with a minimum grade of C, or permission of instructor. Recommended: MBB 309W.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Summer 2019

RATIONALE (must be included)

Having 2 lab courses, MBB 308 and 309W, plus MBB 331 as prereqs for MBB 432 limits enrollment, which has already suffered from moving this course from a Fall to Summer offering. Changing the MBB 309W to "recommended" instead of "required" will allow more students to take MBB 432. The instructor will adapt the course accordingly.

COURSE SUBJECT	STAT	NUMBER	430	TITLE	Statistical Design & Analysis of Experiments
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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 extension of the designs discussed in STAT 350 to include more than one blocking variable, incomplete block designs, fractional factorial designs, and response surface methods. Prerequisite: STAT 350 (or MATH 372). Quantitative.

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

Fall 2019

RATIONALE (must be included)

MATH 372 no longer exists.