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MEMORANDUM

ATTENTION	Senate	DATE	June 2, 2017
FROM	Gordon Myers, Chair Senate Committee on Undergraduate Studies	PAGES	1/2
RE:	Course Changes (SCUS 17-25)		

For information:

Acting under delegated authority at its meeting of June 1, 2017 SCUS approved the following curriculum revisions effective Spring 2018.

a. Beedie School of Business

- (i) Deletion of BUS 329 *(effective Summer 2018)*

b. Faculty of Environment

1. Department of Geography

- (i) B-Soc-Sci designation for GEOG 104-3, Climate Change, Water and Society

c. Faculty of Health Sciences

- (i) Description, prerequisite and/or equivalent statement change for HSCI 426, 427, 440, 441, and 442

d. Faculty of Science

1. Department of Chemistry

- (i) Description change to SCI 191

2. Department of Mathematics

(i) Title, description and prerequisite change for MATH 302, 303^{*} and 304^{**}

** effective Fall 2018*

3. Department of Physics

*** effective Spring 2019*

(i) Prerequisite change for PHYS 102

(ii) *Prerequisite* change for PHYS 332

COURSE SUBJECT NUMBER TITLE

RATIONALE (must be included)

Course will be replaced by two new courses: BUS 330, Income Taxation for Individuals and BUS 331, Corporate Taxation, effective Summer 2018. BUS 329 will no longer be offered.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

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.



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MEMORANDUM

ATTENTION Alex Clapp, Associate Dean, FENV **DATE** May 2, 2017

FROM Susan Rhodes,
Director, University Curriculum &
Institutional Liaison **PAGES** 1

RE: GEOG B approval

The University Curriculum Office has approved **B-Soc/Sci** designation for the following Geography course, effective Spring 2018 (1181):

GEOG 104-3 Climate Change, Water and Society

Please forward this memo to your Faculty UCC, SCUS and Senate for further approval.

cc: Eugene McCann, UGC Chair, Department of Geography

COURSE SUBJECT NUMBER TITLE

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 ~~Basic~~ organization of the immune system, including structure, function and genetics of antibodies, T-cell receptors, innate immune receptors, and the complement system; structure and function of lymphoid tissues. Development of cells and tissues involved in immune responses. Innate and adaptive antibody and cellular immune responses and their ~~control~~, orchestration, and ~~development of the cells involved in these responses.~~ including mucosal immunity. Prerequisite: MBB 331 with a minimum grade of C, or permission of the instructor. Students with credit for MBB 426 and ~~HSCI 325~~ 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)

This update better reflects the current contents of this course. An equivalent modification to the cross-listed MBB 426 has been developed.

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

This update better reflects the current contents of this course. An equivalent modification to the cross-listed MBB 427 has been developed.

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 checked="" type="checkbox"/>
Title	<input type="checkbox"/>	Description	<input checked="" type="checkbox"/>	Equivalent Statement	<input type="checkbox"/>

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Cell Pathophysiology Laboratory HSCI 440 (4)

A review of pathophysiological mechanisms of disease with an emphasis on the molecular, cellular and genetic bases of pathology. Laboratory includes cell-biology experiments, histological preparations, and microscopic examination of normal and diseased tissues. Prerequisite: ~~MBB 308 and HSCI 321~~, or permission from instructor. HSCI 321 and one of BISC 357, MBB 308, or MBB 309W.

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

RATIONALE (must be included)

This change expands the number of courses students can use as a pre-requisite for this course.

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 checked="" type="checkbox"/>
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HSCI 441 - Virology Laboratory (4)

Study, in a laboratory environment, of viruses as infectious agents that threaten human health and viral associated cancer as well as their use in gene therapy. Includes cell culture methods, virus isolation and quantification, virus purification, etc. Prerequisite: HSCI 338 ~~-Animal Virology~~. O and one of - BISC 303, BISC 357 ~~-Gene Cloning~~, MBB 308. ~~Molecular Biology laboratory~~, or MBB 309 ~~-Biochemistry Laboratory~~.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Spring 2018

RATIONALE (must be included)

This change expands the number of courses students can use as a pre-requisite for this course.

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Course number Units Prerequisite
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HSCI 442 - Immunology Laboratory (4)

Laboratory methods in immunology. Focus on the vertebrate immune system and the molecular and cellular principles underlying immune recognition. Experimental methods designed to combine serology, biochemistry, molecular biology, cell biology and genetics as a basis for understanding immunological aspects of health and disease. Prerequisite: HSCI or MBB 426, and one of MBB 308, BISC 303, BISC 357, or MBB 309W.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Spring 2018

RATIONALE (must be included)

This change expands the number of courses students can use as a pre-requisite for this course.

COURSE SUBJECT NUMBER TITLE

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Introduction to research being performed in the Faculty of Science. Students attend ~~bi-weekly~~ seminars in which current research topics in the Faculty of Science are introduced at a level suitable for first-~~years and second-year~~ students. This course spans disciplines in the Faculty of Science.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

RATIONALE (must be included)

The course was run as a pilot spanning two semesters, with bi-weekly seminars for 8 months. This became onerous to manage administratively and it was decided to make the course a more typical one-semester course, with weekly meetings. Thus the word "bi-weekly" in the description was removed.
The course material is also appropriate for second-year students and this has been made explicit in the course description.



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MATH 302 (3) - ~~Computing with Mathematics~~ Mathematical Journeys II

~~Computational techniques have become a cornerstone of modern mathematics. Each offering explores the mathematics of an area of advanced technology. Potential course topics include: image processing; codes and ciphers; bioinformatics; experimental mathematics; and modeling and simulation. Department permission is required to complete this course more than once. Prerequisite: MATH 152 or 155 or 158 and MATH 232 or 240. There may be additional prerequisites depending on the course's topics. Recommended: MACM 202, 203, or 204 or equivalent computing experience.~~

A focused exploration of a special topic (varying from term to term) that builds on mathematical ideas from lower division courses and provides further challenges in quantitative and deductive reasoning. Each Journeys course is designed to appeal particularly to mathematics minor students and others with a broad interest in mathematics.

Prerequisite: MATH 152 or 155 or 158, and MATH 232 or 240. There may be additional prerequisites depending on the specific course topic.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Spring 2018 (to be offered in the Spring of even-numbered years)

RATIONALE (must be included)

The intent of altering the titles and descriptions of the courses MATH 302, 303 and 304 is to clarify that these are indeed topics courses, and to standardize the scheduling, without changing these popular courses themselves.

The courses MATH 302 (Computing with Mathematics), MATH 303 (Perspectives on Geometry) and MATH 304 (Quantifying Uncertainty) were introduced in 2009 as special topics courses designed to appeal especially to potential mathematics minor students and other non-majors broadly interested in mathematical ideas. These upper-division courses have been extremely successful, sometimes attracting up to 70 students. The number of Mathematics minors, from less than 10 in 2009, now number over 120 students. Because of the irregular rotation of faculty who were assigned to teach the class, the old course titles seldom corresponded to the special topic that was offered.

The proposed modification is to rename these courses all as "Mathematical Journeys", all sharing the same description, and to introduce an additional such course, MATH 301. This will permit us to offer a series of four special topics courses, named Mathematical Journeys I, II, III and IV, so to be distinct within our two-year cycle of course offerings. The appending of special topics titles will make both course advertising and students' transcripts less confusing. Most importantly, the distinct numbering should make it perfectly clear to potential minor students that there is a permanently scheduled selection of upper-division courses that they can use to satisfy their 5-course minor requirement.

COURSE SUBJECT NUMBER TITLE

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

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MATH 303 (3) - ~~Perspectives on Geometry~~ Mathematical Journeys III

~~Geometry is the mathematics of form and space, and is vital to our understanding of both the physical and virtual worlds. Designing computer graphics is an example of using mathematics to encode spatial relationships. Potential topics include: Euclidean and non-Euclidean geometries, computational geometry, differential geometry, and symmetry. Prerequisite: MATH 152 or 155 or 158 and MATH 232 or 240. There may be additional prerequisites depending on the course's topics. Department permission is required to complete this course more than once. Quantitative.~~

A focused exploration of a special topic (varying from term to term) that builds on mathematical ideas from lower division courses and provides further challenges in quantitative and deductive reasoning. Each Journeys course is designed to appeal particularly to mathematics minor students and others with a broad interest in mathematics.

Prerequisite: MATH 152 or 155 or 158, and MATH 232 or 240. There may be additional prerequisites depending on the specific course topic.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Fall 2018 (to be offered in the Fall of even-numbered years)

RATIONALE (must be included)

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MATH 304 (3) - ~~Quantifying Uncertainty~~ Mathematical Journeys IV

~~Probability theory is the mathematics of uncertainty as in weather forecasting, genetics, the financial markets, and even your choice of line at the grocery. Here we explore models that quantify chance in daily life. Potential topics are: game theory, queueing theory, random processes, and the mathematics of finance. Department permission is required to complete this course more than once. Prerequisite: MATH 152 or 155 or 158 and MATH 232 or 240. There may be additional prerequisites depending on the course's topics. Quantitative.~~

A focused exploration of a special topic (varying from term to term) that builds on mathematical ideas from lower division courses and provides further challenges in quantitative and deductive reasoning. Each Journeys course is designed to appeal particularly to mathematics minor students and others with a broad interest in mathematics.

Prerequisite: MATH 152 or 155 or 158, and MATH 232 or 240. There may be additional prerequisites depending on the specific course topic.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Spring 2019 (to be offered in the Spring of odd-numbered years)

RATIONALE (must be included)

The intent of altering the titles and descriptions of the courses MATH 302, 303 and 304 is to clarify that these are indeed topics courses, and to standardize the scheduling, without changing these popular courses themselves.

The courses MATH 302 (Computing with Mathematics), MATH 303 (Perspectives on Geometry) and MATH 304 (Quantifying Uncertainty) were introduced in 2009 as special topics courses designed to appeal especially to potential mathematics minor students and other non-majors broadly interested in mathematical ideas. These upper-division courses have been extremely successful, sometimes attracting up to 70 students. The number of Mathematics minors, from less than 10 in 2009, now number over 120 students. Because of the irregular rotation of faculty who were assigned to teach the class, the old course titles seldom corresponded to the special topic that was offered.

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Course number Units Prerequisite

Title Description Equivalent Statement

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PHYS 101 or 120 or 125 or 140 and MATH 154 or 150 or 151 or 157, all with a minimum grade of C-. Co-requisite: BISC 100 or 101 or 102. Recommended Corequisites: MATH 152, 155 or 158, PHYS 130.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

RATIONALE (must be included)

Students need experience with calculus before taking PHYS 102. While MATH 154 is a required co-req for PHYS 101, students are currently able to enter PHYS 102 without MATH 154. Making the pre-req explicit should remove this possibility.



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Prerequisite: either PHYS 233 or both (PHYS 231 and CHEM 266) and either PHYS 285, ~~(or equivalent)~~ or CHEM 260 all with a minimum grade of C-.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

RATIONALE (must be included)

CHPH students do not take PHYS 233, and so we have an alternate stream for them to enter PHYS 332, which is a combination of PHYS 231 and CHEM 266. CHPH students can take either PHYS 285 or CHEM 260. Making these alternatives explicit should help CHPH students plan their programs.