

OFFICE OF THE ASSOCIATE VICE-PRESIDENT, ACADEMIC

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MEMORANDUM

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

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

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

3. Department of Physics

(i) Prerequisite change for PHYS 102

(ii) Prerequisite and course number change for PHYS 332

SCUS 17-25

T+ 10

	item 10
SFU SENATE COMMITTEE ON UNDERGRADUATE STUDIES	EXISTING COURSE DELETION FORM 1 of 1 page
COURSE SUBJECT BUS NUMBER 329-4	TITLE Income Tax for Business Decision-Making
RATIONALE (must be included)	
Course will be replaced by two new courses: BUS 330, I Corporate Taxation, effective Summer 2018. BUS 329 v	Income Taxation for Individuals and BUS 331, vill no longer be offered.
EFFECTIVE TERM AND YEAR FOR CHANGES Fall, Spring, Summer and year (enter in textbox) Summer 2018 PLEASE DO THE FOLLOWING:	
 Attach a program impact list along with your course Office (sfucal@sfu.ca) for a program impact list. Once you have the program impact list, please revier requirements. If more substantial changes are required to programs modification form. If no further changes other than deletion is required box below: 	e deletion form. Contact the Senate and Academic Services w how deleting this course affects each program's as a result of this deletion, please also submit a program in program requirements, please list those programs in the

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.



UNIVERSITY CURRICULUM AND INSTITUTIONAL LIAISON OFFICE OF THE VICE-PRESIDENT, ACADEMIC

	8888 University Drive, Burnaby, BC Canada V5A 1S6	TEL: 778.782.3312 FAX: 778.782.5876	slrhodes@sfu.ca www.sfu.ca/ugcr
MEMORAND	UM		
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

SFU	SENATE COMM UNDERGRADU	IITTEE ON ATE STUDIES		COURSE MO	DIFICAT	TION FORM Page 1 of 1
COURSE S	UBJECT H	ISCI NUMBER	426	TITLE Immune	System 1	
TYPE OF C	CHANGES. Ple	ease type 'X' for the ap	propria	ate revision(s):		
Course number		Units		Prerequisite		
Title		Description	\boxtimes	Equivalent Statement		

The <u>B</u>asic 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. <u>Development of cells and tissues involved in immune</u> <u>responses.</u> Innate <u>and adaptive</u> antibody and cellular immune responses and their control, <u>orchestration</u>, and development of the cells involved in these responses. <u>including mucosal immunity</u>. Prerequisite: MBB 331 <u>with</u> <u>a minimum grade of C, or permission of the instructor</u>. 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)

Spring 2018

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.

SFU	SENATE COMMITTEE O UNDERGRADUATE STU	N DIES		COURSE MO	DIFICATI	ON FORM Page 1 of 1
COURSE SUE	BJECT HSCI	NUMBER	427	TITLE Immune	System II	
TYPE OF CH	ANGES. Please ty	pe 'X' for the ap	propriate	revision(s):		
Course number		Units		Prerequisite	\boxtimes	
Title		Description	\boxtimes	Equivalent Statement		

<u>Defects in </u>T <u>the immunologic response to bacterial, viral</u> and parasitic infections<u>,</u>. <u>The mechanisms of action of</u> <u>vaccines. The causes of immune-mediated diseases</u> <u>Immunological diseases</u>, such as autoimmune diseases, <u>immunodeficiency</u>, hypersensitivity reactions (including asthma and allergy) and <u>organ</u> transplant rejection. <u>reactions</u>. <u>The reaction of the immune system to cancer</u> and immunotherapy for cancer. Prerequisite: MBB 426 or <u>HSCI 426</u>, with a minimum grade of C, or permission of <u>the instructor</u>. 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)

Spring 2018

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 SI	JBJECT	HSCI NUMBER	440	TITLE Cell Pathophysiology Laborator
TYPE OF C	HANGES	S. Please type 'X' for the app	propriate	revision(s):
Course number		Units		Prerequisite 🛛
Title		Description	\boxtimes	Equivalent 🗆 Statement
A review the mole cell-biolo examina <u>321, or p</u> or MBB 3	of path cular, ce ogy expe tion of n ermissi 09W.	ophysiological mechanis ellular and genetic bases eriments, histological pre ormal and diseased tiss on from instructor. <u>HSCI</u>	ms of dis of patho paration les. Prero <u>321 and</u>	sease with an emphasis on logy. Laboratory includes is, and microscopic equisite: <u>MBB 308 and HSCI</u> one of BISC 357, MBB 308,

RATIONALE (must be included)

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

COURSE S	UBJECT HS	CI NUMBER	441	TITLE Virology Laboratory	
TYPE OF C	HANGES. Plea	ase type 'X' for the ap	propriate re	vision(s):	
Course number		Units		Prerequisite 🛛	
Title		Description		Equivalent 🗆 Statement	
HSCI 44 Study, in threaten	1 - Virology I a laboratory human heal	nts if changing equiv aboratory (4) v environment, of vi th and viral associa	iruses as inf ted cancer a	ent(s). ectious agents that as well as their use in	
gene the quantific Virology	ation, virus	es cell culture meth ourification, etc. Pre f - <u>BISC 303</u> , BISC 3	ods, virus is erequisite: 1 57 - Gene C	olation and ISCI 338 - Animal oning , MBB 308.	
gene the quantific Virology Molecula	apy. Include ation, virus j . O <u>and</u> one o ar Biology lal	es cell culture meth purification, etc. Pro f - <u>BISC 303</u> , BISC 3 ooratory , or MBB 30	ods, virus is erequisite: 1 57 - Gene C 09 - Biocher	olation and ISCI 338 - Animal oning , MBB 308. nistry Laboratory .	
gene the quantific Virology Molecula	apy. Include ation, virus j . O <u>and</u> one o ar Biology lak	es cell culture meth purification, etc. Pro of - <u>BISC 303</u> , BISC 3 oratory , or MBB 30	ods, virus is erequisite: 1 57 - Gene C 09 - Biocher	olation and ISCI 338 - Animal oning , MBB 308. nistry Laboratory .	

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

	JBJECT	HSCI	NUMBER	442	TITLE	Immunolo	ogy Laborato	ry
TYPE OF C	HANGES	. Please typ	pe 'X' for the ap	propriate	revision(s):			
Course number			Units		Pre	requisite	\boxtimes	
Title			Description	\boxtimes	Ec St	luivalent atement		
WORDING, indicate add allows, drag expand. Ple specific cou	/DESCRI ded or ne g the end ase revie <u>rse com</u>	PTION ED w text usin point of the w the "Equ conents if o	ITS. Indicate do ng <u>underline</u> . If e text box to ma uvalency stater changing equiv	eleted or o you need ake it bigg nents" see alent stat	changed text to enter mo ger, as it will ction under ement(s).	t using stril re text tha not autom Informatio	ke through , n the box atically <u>n about</u>	
	- 1111110	nology La	boratory (4)					
Laborato system a recogniti biochemi understa HSCI or M	ry meth nd the n on. Expo stry, mo nding in ABB 426	nology La ods in imr nolecular a erimental i olecular bi nmunolog 5, and one	boratory (4) munology. Foc and cellular p methods desi ology, cell bio ical aspects of of MBB 308, F	cus on th rinciples gned to c logy and f health a BISC 303,	e vertebrat underlying combine ser genetics as and disease <u>BISC 357</u>	e immune immune cology, s a basis fo Prerequi or MBB 30	or site: 09W.	

SFU course su	SENATE COMMI UNDERGRADUA BJECT SC	FTEE ON TE STUDIES	191	COURSE MODIFICATION FORM Page 1 of TITLE Introduction to Modern Scientific Research	V 1
TYPE OF CH	IANGES. Plea	ise type 'X' for the ap	propriat	te revision(s):	
Course number		Units		Prerequisite 🗆	
Title		Description	ХХ	Equivalent 🗆 Statement	
WORDING/ indicate add allows, drag expand. Plea <u>specific cour</u> Introducti bi-weekly introduced spans disc	DESCRIPTIC led or new te the endpoin ase review th rse component on to research seminars in v d at a level su iplines in the	ON EDITS. Indicate d xt using <u>underline</u> . If t of the text box to m e "Equivalency state <u>nts</u> if changing equiv h being performed i which current reseau itable for first- years Faculty of Science.	eleted or f you need ake it big ments" so valent sta n the Fac rch topics -and seco	r changed text using strike through , ed to enter more text than the box gger, as it will not automatically ection under <u>Information about</u> atement(s). culty of Science. Students attend s in the Faculty of Science are <u>ond-year</u> students. This course	

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Spring 2018

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.

SFU	SENATE COMMIT	TEE ON E STUDIES		COL	JRSE MO	DIFIC	Page	FOF L of
COURSE S	UBJECT M	ATH NUMBER	302	TITI	LE Compu	uting	with Math	ema
TYPE OF CI	HANGES. Pleas	se type 'X' for the ap	propriate	revision(s	5):			
Course number		Units		Pr	erequisite	\boxtimes		
Title	\boxtimes	Description	\boxtimes	E	Equivalent Statement			
indicate add allows, drag expand. Ples <u>specific cou</u> MATH 302	DESCRIPTIO ded or new tex the endpoint ase review the <u>rse componen</u> 2 (3) – Comput	t using <u>underline</u> . If of the text box to ma "Equivalency stater <u>ts</u> if changing equiv ting with Mathemati	you need ake it bigg nents" see alent stat es <u>Mather</u>	to enter m ger, as it w ction unde ement(s). matical Jou	nore text th ill not autor er <u>Informati</u> urneys II	an the matica on abo	rough, box lly <u>out</u>	7
indicate add allows, drag expand. Ples <u>specific cou</u> MATH 302 <u>Computations inclessed topics inclessed MATH 232 topics. Red <u>A focused</u> <u>mathemations and the second</u> <u>particular</u> <u>mathemations inclessed</u></u>	DESCRIPTIO ded or new tex g the endpoint ase review the <u>rse componen</u> 2 (3) – Comput ional techniqu cplores the ma ude: image pru- ics; and model this course mo cor 240. There commended: M <u>exploration of</u> ical ideas from <u>ve and deduction</u> by to mathema ics.	t using <u>underline</u> . If of the text box to ma "Equivalency stater <u>ts</u> if changing equiv ting with Mathemati es have become a co thematics of an area ocessing; codes and ling and simulation. re than once. Prerece may be additional ACM 202, 203, or 2 a special topic (vary be lower division cour ve reasoning. Each tics minor students	you need ake it bigg nents" see alent stat cs <u>Mathen</u> ciphers; t Departmo prerequis 04 or equ <u>ving from</u> <u>cses and p</u> <u>lourneys</u> and other	to enter m ger, as it w ction unde ement(s). matical Jou e of moder ced techno bioinforma ent permis ATH 152 o ites depen ivalent con term to te provides fu course is c s with a bu	ill not autor ill not autor or <u>Informati</u> <u>urneys II</u> in mathema ology. Poter tics; experi- tics; experi- sion is requ or 155 or 15 or 155 or 15 or 155 or 15 uding on the mputing ex- inther challed lesigned to road interes	an the matica on abo attics. E ntial co menta rired t S8 and cours perien uilds on enges i appea st in	rough, box lly out ach ourse d o se's ce. n in l	

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)



SENATE COMMITTEE ON UNDERGRADUATE STUDIES

COURSE MODIFICATION FORM

RATIONALE (must be included)

Page 2 of 2

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.

SFU	SENATE COMMITTEE UNDERGRADUATE SI	: ON FUDIES		COURSE MODIFICATION FOR Page 1 of
COURSE S	UBJECT MAT	H NUMBER	303	TITLE Perspectives on Geometry
TYPE OF C	HANGES. Please	type 'X' for the ap	propriate rev	ision(s):
Course number		Units		Prerequisite 🖂
Title	\boxtimes	Description	\boxtimes	Equivalent 🗆 Statement
Geometry both the p using mat and non-F symmetry be additic is require	is the mathemat hysical and virtu hematics to enco Guclidean geomet Prerequisite: M mal prerequisite:	ics of form and sp al worlds. Design de spatial relation ries, computation ATH 152 or 155 o	ace, and is vit ing computer iships. Potent al geometry, r 158 and M/	al to our understanding of graphics is an example of ial topics include: Euclidean differential geometry, and VTH 232 or 240. There may

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)



SENATE COMMITTEE ON UNDERGRADUATE STUDIES

COURSE MODIFICATION FORM

RATIONALE (must be included)

Page 2 of 2

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SFU	SENATE COM UNDERGRADI	MITTEE ON JATE STUDIES		COURSE MODIFICATION FORM
COURSE S	SUBJECT [MATH NUMBER	. 304	TITLE Quantifying Uncertainty
TYPE OF C	HANGES. P	ease type 'X' for the apj	propriate rev	ision(s):
Course number		Units		Prerequisite 🖂
Title	\boxtimes	Description	\boxtimes	Equivalent 🗆 Statement
Probabilit genetics, t explore m queueing permissic	ty theory is the financia todels that of theory, ran on is require	the mathematics of unc l markets, and even you quantify chance in daily dom processes, and the	ertainty as in r choice of lin life. Potentia mathematics	weather forecasting, ne at the grocery. Here we I topics are: game theory,

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)



SENATE COMMITTEE ON UNDERGRADUATE STUDIES

COURSE MODIFICATION FORM

RATIONALE (must be included)

Page 2 of 2

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	SFU	SENATE COMM UNDERGRADU	IITTEE ON ATE STUDIES	COURSE MODIFICATION FORM Page 1 of 1					
	COURSE S	UBJECT	PHYS NUMBER	102	TITLE Physics	for the Life Sciences II			
TYPE OF CHANGES. Please type 'X' for the appropriate revision(s):									
	Course number		Units		Prerequisite	\boxtimes			
	Title		Description		Equivalent Statement				

PHYS 101 or 120 or 125 or 140 <u>and MATH 154 or 150 or 151 or 157</u>, <u>all</u> 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)

Spring 2018

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.

SFU COURSE SU	SENATE COMMITTEE C UNDERGRADUATE STU UBJECT PHYS	DIES NUMBER	COURSE MODIFICATION FORM Page 1 of 1 TITLE Optics Laboratory					
TYPE OF CHANGES. Please type 'X' for the appropriate revision(s): Course Units Prerequisite 🖂								
Title		Description		Equivalent Statement				

Prerequisite: <u>either</u> PHYS 233 <u>or both (PHYS 231 and CHEM 266)</u> and <u>either PHYS</u> 285, [or equivalent] <u>or CHEM 260 all</u> with a minimum grade of C-.

EFFECTIVE TERM AND YEAR FOR CHANGES

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

Spring 2018

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.