

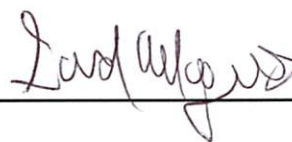
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MEMORANDUM

ATTENTION	Senate	DATE	April 4, 2014
FROM	Gordon Myers, Chair	PAGES	1/3
RE:	Senate Committee on Undergraduate Studies Faculty of Science (SCUS 14-14)		



For information:

Acting under delegated authority at its meeting of April 3, 2014 SCUS approved the following curriculum revisions effective Spring 2015.

1. Department of Math (SCUS 14-14a)

- (i) Upper Division requirement changes to the Mathematics Major and Honours Programs
- (ii) Description and Prerequisite change to MACM 203, 204

2. Department of Biomedical Physiology and Kinesiology (SCUS 14-14b)

- (i) Title and description change to BPK 304W
- (ii) Prerequisite and/or description change to BPK 496, 497, 498
- (iii) New Course Proposal: BPK 458-3, Prevention and Management of Cardiovascular Disease
- (iv) Program Continuance changes to the Behavioral Neuroscience Major and Honours Programs
- (v) Addition of BISC 202 to the Lower Division requirements in the Major and Honors Biomedical Physiology Program

3. Department of Biological Sciences (SCUS 14-14c)

- (i) New Course Proposal: BISC 113 -3, Biology in Everyday Life (with Breadth-Science designation)
- (ii) Prerequisite change to BISC 100, 101, 102

4. Department of Chemistry (SCUS 14-14d)

- (i) Change to CHEM 482 to allow students to repeat for credit.

The following business was passed by the Faculty of Science Undergraduate Studies Curriculum Committee;

Mathematics (MATH)

- Motion: Calendar Description Updates
 - Mathematics, Major and Honors Programs
 - Upper Division requirement changes
 - details (delete Math 308, add Math 447, 408, and 443)
- Motion: Course Change
 - Math 157 (updated description for each course)
 - MACM 203, 204 (description and prerequisite changes)

Biomedical Physiology and Kinesiology (BPK)

- Motion: Course Description Updates
 - BPK 304W (name and description change)
 - BPK 496, 497, 498 (pre- and co-requisite updates)
- Motion: New Course Proposal
 - BPK 458 (new course)
 - to be offered as a distance education course through CODE
 - to be cross-listed with HSCI 458
- Motion: Changes to Program Continuance Requirements, Behavioral Neuroscience Programs
 - Major and Honors Programs
 - increase minimum GPA to 2.2

BioScience (BISC)

- Motion: New Course Proposal
 - BISC 113DE
 - to be offered as a distance education course
 - designated as a breadth course
- Motion: Prerequisite Changes, BISC 100, 101, 102

- so has BISC 113 been approved as a breadth course? – or is this simply BISC 100 without the laboratory which had been approved for breadth designation?
- ask Jo for language - for BPK, should 458 not then list HSCI 458 as being not eligible for credit?
- update the BPK motions

MATHEMATICS

Motion: To change the upper division requirements for the mathematics Majors and Honors programs

Rationale: The department would like all mathematics majors and honors students to take at least one upper division course in discrete mathematics. MATH 308 is deleted as an option because it is not a discrete mathematics course. MATH 447, 408, 443 are added to provide greater choice.

1A) From (current description- mathematics **major** program):

Upper Division Requirements

Students complete a minimum total of 44 units, including the following.

Students complete 15 units, including
MATH 340 - Algebra II: Rings and Fields (3)

and one of
MATH 308 - Linear Optimization (3)
MATH 343 - Applied Discrete Mathematics (3)
MATH 345 - Introduction to Graph Theory (3)

and one of
MATH 320 - Introduction to Analysis II (3)
MATH 322 - Complex Variables (3)

and one of
MATH 338 - Advanced Linear Algebra (3)
MATH 341 - Algebra III: Groups (3)
MATH 342 - Elementary Number Theory (3)

and one of
MATH 310 - Introduction to Ordinary Differential Equations (3)
MACM 316 - Numerical Analysis I (3)

To (new description- mathematics **major** program):

Upper Division Requirements

Students complete a minimum total of 44 units, including the following.

Students complete 15 units, including

MATH 340 - Algebra II: Rings and Fields (3)

and one of

~~MATH 308 - Linear Optimization (3)~~

MATH 343 - Applied Discrete Mathematics (3)

MATH 345 - Introduction to Graph Theory (3)

MATH 447 - Coding Theory (3)

MATH 408 - Discrete Optimization (3)

MATH 443 - Combinatorial Theory (3)

and one of

MATH 320 - Introduction to Analysis II (3)

MATH 322 - Complex Variables (3)

and one of

MATH 338 - Advanced Linear Algebra (3)

MATH 341 - Algebra III: Groups (3)

MATH 342 - Elementary Number Theory (3)

and one of

MATH 310 - Introduction to Ordinary Differential Equations (3)

MACM 316 - Numerical Analysis I (3)

1B) From (old description- mathematics honours programs):

Upper Division Requirements

Students complete a total of 60 upper division units. 48 units will satisfy requirements for the mathematics honours program. 36 units must include upper division MATH and MACM coursework, including:

MATH 340 - Algebra II: Rings and Fields (3)

MATH 341 - Algebra III: Groups (3)

and one of

MATH 308 - Linear Optimization (3)

MATH 343 - Applied Discrete Mathematics (3)

MATH 345 - Introduction to Graph Theory (3)

and one of

MATH 320 - Introduction to Analysis II (3)

MATH 322 - Complex Variables (3)

and one of

MATH 338 - Advanced Linear Algebra (3)

MATH 342 - Elementary Number Theory (3)

and one of

MATH 310 - Introduction to Ordinary Differential Equations (3)

MACM 316 - Numerical Analysis I (3)

To (new description- mathematics honours programs):

Upper Division Requirements

Students complete a total of 60 upper division units. 48 units will satisfy requirements for the mathematics honours program. 36 units must include upper division MATH and MACM coursework, including:

MATH 340 - Algebra II: Rings and Fields (3)

MATH 341 - Algebra III: Groups (3)

and one of

~~MATH 308 - Linear Optimization (3)~~

MATH 343 - Applied Discrete Mathematics (3)

MATH 345 - Introduction to Graph Theory (3)

MATH 447 - Coding Theory (3)

MATH 408 - Discrete Optimization (3)

MATH 443 - Combinatorial Theory (3)

and one of

MATH 320 - Introduction to Analysis II (3)

MATH 322 - Complex Variables (3)

and one of

MATH 338 - Advanced Linear Algebra (3)

MATH 342 - Elementary Number Theory (3)

and one of

MATH 310 - Introduction to Ordinary Differential Equations (3)

MACM 316 - Numerical Analysis I (3)



EXISTING COURSE, CHANGES RECOMMENDED

Please check appropriate revision(s):

☐ Course number ☐ Credit ☐ Title ☒ Description ☒ Prerequisite ☐ Course deletion ☐ Learning Outcomes

Indicate number of hours for: Lecture 1 Seminar _____ Tutorial _____ Lab 1

FROM MACM 203-2 **TO** MACM 203-2
Course Subject/Number

Credits _____ Credits _____

TITLE

(1) LONG title for calendar and schedule, no more than 100 characters including spaces and punctuation.

FROM: _____ **TO:** _____

(2) SHORT title for enrollment and transcript, no more than 30 characters including spaces and punctuation.

FROM: _____ **TO:** _____

DESCRIPTION

FROM:

Development of computer models that analyze and illustrate applications of linear algebra. Topics include: large-scale matrix calculations, experiments with cellular automata, population models, data fitting and optimization, image analysis.

PREREQUISITE

Does this course replicate the content of a previously approved course to such an extent that students should not receive credit for both courses?
If so, this should be **noted in the prerequisite**.

FROM: One of CMPT 125, 126 or 128 and one of MATH 150, 151, 154, or 157. Students in excess of 75 units may not take MACM 203 for further credit. MATH 232 or 240 (can be taken as corequisite).

LEARNING OUTCOMES

RATIONALE

The change to the Description clarifies that the course is not primarily about "modeling" but rather about using software packages for "doing".
The second change is to state which software package will be used. MACM 203 uses Matlab. The math department explicitly wishes to advertise this.
The third change updates and expands the list of topics to what is being covered (in the first four offerings).
The fourth change drops the requirement of CMPT 125 (a second programming course) so that mathematics students can take MACM 203 earlier in their program (preferably in their second year).
The fifth change from 75 to 80 units accommodates students transferring to SFU in their fifth semester who need to take MACM 203.

Effective term and year

~~Fall 2014~~ SPRING 2015

NOVEMBER 2012



EXISTING COURSE, CHANGES RECOMMENDED

Please check appropriate revision(s):

☐ Course number ☐ Credit ☐ Title ☒ Description ☒ Prerequisite ☐ Course deletion ☐ Learning Outcomes

Indicate number of hours for: Lecture 1 Seminar _____ Tutorial _____ Lab 1

FROM MACM 204-2 **TO** MACM 204-2
Course Subject/Number

Credits _____ Credits _____

TITLE

(1) LONG title for calendar and schedule, no more than 100 characters including spaces and punctuation.

FROM: _____ **TO:** _____

(2) SHORT title for enrollment and transcript, no more than 30 characters including spaces and punctuation.

FROM: _____ **TO:** _____

DESCRIPTION

FROM:

Development of computer models that analyze and illustrate applications of multi-variable calculus. Topics include: 3D visualization of curves and surfaces, disease spread models, multi-dimensional optimization and probability models.

DESCRIPTION

TO:

Using a mathematical software package for doing computations from calculus. Development of computer models that analyze and illustrate applications of calculus. All calculations and experiments will be done in the Maple software package. Topics include: graphing functions and data, preparing visual aids for illustrating mathematical concepts, integration, Taylor series, numerical approximation methods, 3D visualization of curves and surfaces, multi-dimensional optimization, differential equations and disease spread models.

PREREQUISITE

Does this course replicate the content of a previously approved course to such an extent that students should not receive credit for both courses?

If so, this should be **noted in the prerequisite**.

FROM: One of CMPT 125, 126 or 128. Students in excess of 75 units may not take MACM 204 for further credit. MATH 251 (can be taken as a corequisite). Quantitative.

PREREQUISITE

TO: One of CMPT 102, 120, 126, 128 or 130 and MATH 251. MATH 251 can be taken as a corequisite. Students in excess of 80 units may not take MACM 204 for further credit. Quantitative.

LEARNING OUTCOMES

RATIONALE

The change to the Description clarifies that the course is not primarily about "modeling" but rather about using software packages for "doing". The second change is to state which software package will be used. MACM 204 uses Maple. The math department explicitly wishes to advertise this.

The third change updates and expands the list of topics to what is being covered (in the first four offerings).

The fourth change drops the requirement of CMPT 125 (a second programming course) so that mathematics students can take MACM 204 earlier in their program (preferably in their second year).

The fifth change from 75 to 80 units is to accommodate students transferring to SFU in their fifth semester who need to take MACM 204.

Effective term and year

~~Fall 2014~~ SPRING 2015

NOVEMBER 2012



EXISTING COURSE, CHANGES RECOMMENDED

Please check appropriate revision(s):

☐ Course number ☐ Credit ☒ Title ☒ Description ☐ Prerequisite ☐ Course deletion ☐ Learning Outcomes

Indicate number of hours for: Lecture _____ Seminar _____ Tutorial _____ Lab _____

FROM		TO	
Course Subject/Number	BPK 304W	Course Subject/Number	BPK 304W
Credits	3	Credits	3

TITLE

(1) LONG title for calendar and schedule, no more than 100 characters including spaces and punctuation.

FROM:

Inquiry and Measurement in Kinesiology

TO:

Inquiry and Measurement in Biomedical
Physiology and Kinesiology

(2) SHORT title for enrollment and transcript, no more than 30 characters including spaces and punctuation.

FROM:

TO:

DESCRIPTION

FROM:

This course covers the evaluation of measurement quality, test construction and assessment, and computer techniques for data capture and signal processing relevant to issues in Kinesiology. Prereq statistical knowledge will be put into practice when discussing typical research designs, modeling and hypothesis testing in Kinesiology.

DESCRIPTION

TO:

This course covers the evaluation of measurement quality, test construction and assessment, and computer techniques for data capture and signal processing relevant to issues in Biomedical Physiology and Kinesiology. Prereq statistical knowledge will be put into practice when discussing typical research designs, modeling and hypothesis testing in Biomedical Physiology and Kinesiology.

PREREQUISITE

Does this course replicate the content of a previously approved course to such an extent that students should not receive credit for both courses?
If so, this should be **noted in the prerequisite**.

PREREQUISITE

TO:

FROM:

LEARNING OUTCOMES

RATIONALE

BPK 304W is required for both Kinesiology and Biomedical Physiology Majors. The content of the course is based on data from research in all areas within the department.

Effective term and year

January 2015

NOVEMBER 2012



EXISTING COURSE, CHANGES RECOMMENDED

Please check appropriate revision(s):

☐ Course number ☐ Credit ☐ Title ☐ Description ☒ Prerequisite ☐ Course deletion ☐ Learning Outcomes

Indicate number of hours for: Lecture _____ Seminar _____ Tutorial _____ Lab _____

FROM **TO**
Course Subject/Number BPK 496 Course Subject/Number _____
Credits 3 Credits _____

TITLE

(1) LONG title for calendar and schedule, no more than 100 characters including spaces and punctuation.

FROM: **TO:**

Directed Study I

(2) SHORT title for enrollment and transcript, no more than 30 characters including spaces and punctuation.

FROM: **TO:**

DESCRIPTION

FROM:

DESCRIPTION

TO:

PREREQUISITE

Does this course replicate the content of a previously approved course to such an extent that students should not receive credit for both courses?

If so, this should be **noted in the prerequisite**.

FROM: permission from the chair of the undergraduate program committee. Usually, upper level standing with at least 75 units in the Biomedical Physiology and Kinesiology program will be required.

PREREQUISITE

TO: BPK (or KIN) 304W (may be taken concurrently) or PSYC 210, and permission from the chair of the undergraduate program committee. Usually, upper level standing with at least 75 units in the Biomedical Physiology and Kinesiology program will be required.

LEARNING OUTCOMES

RATIONALE

BPK feels that the writing and research design content in BPK 304W are important for the preparation of directed studies students. BPK 304W is already required in both the Kinesiology and Biomedical Physiology major programs and is offered every semester. .

Behavioral Neuroscience majors take PSYC 201W – Research Methods in Psychology(4) and PSYC 210 Introduction to Data Analysis in Psychology(4) as an equivalent to BPK 304W.

Effective term and year

January 2015

NOVEMBER 2012



EXISTING COURSE, CHANGES RECOMMENDED

Please check appropriate revision(s):

☐ Course number ☐ Credit ☐ Title ☒ Description ☒ Prerequisite ☐ Course deletion ☐ Learning Outcomes

Indicate number of hours for: Lecture _____ Seminar _____ Tutorial _____ Lab _____

FROM **TO**
Course Subject/Number BPK 497 Course Subject/Number _____

Credits 3 Credits _____

TITLE

(1) LONG title for calendar and schedule, no more than 100 characters including spaces and punctuation.

FROM: **TO:**

Undergraduate Honors Thesis Proposal

(2) SHORT title for enrollment and transcript, no more than 30 characters including spaces and punctuation.

FROM: **TO:**

DESCRIPTION

FROM:

Only students in the honors program may enrol for BPK 497. 90 units, STAT 201 (formerly STAT 301) and permission of the chair of the undergraduate program committee.

PREREQUISITE

Does this course replicate the content of a previously approved course to such an extent that students should not receive credit for both courses?
If so, this should be **noted in the prerequisite**.

FROM:

LEARNING OUTCOMES

DESCRIPTION

TO:

Only students in the honors program may enroll in BPK 497. 90 units, BPK(or KIN) 304W (may be taken concurrently) and permission of the chair of the undergraduate program committee.

PREREQUISITE

TO:

RATIONALE

BPK feels that the writing and research design content in BPK 304W are important preparation for honors students. BPK 304W is already required in both the Kinesiology and Biomedical Physiology major programs and is offered every semester. STAT 201 is a prerequisite for BPK 304W so it no longer needs to be listed.

Effective term and year

January 2015

NOVEMBER 2012



EXISTING COURSE, CHANGES RECOMMENDED

Please check appropriate revision(s):

☐ Course number ☐ Credit ☐ Title ☐ Description ☒ Prerequisite ☐ Course deletion ☐ Learning Outcomes

Indicate number of hours for: Lecture _____ Seminar _____ Tutorial _____ Lab _____

FROM _____ **TO** _____
Course Subject/Number BPK 498 Course Subject/Number _____

Credits 3 Credits _____

TITLE

(1) LONG title for calendar and schedule, no more than 100 characters including spaces and punctuation.

FROM: _____ **TO:** _____

Directed Study II

(2) SHORT title for enrollment and transcript, no more than 30 characters including spaces and punctuation.

FROM: _____ **TO:** _____

DESCRIPTION

FROM: _____

DESCRIPTION

TO: _____

PREREQUISITE

Does this course replicate the content of a previously approved course to such an extent that students should not receive credit for both courses?

If so, this should be **noted in the prerequisite**.

FROM: STAT 201 and permission from the chair of the undergraduate program committee. Usually, upper level standing with at least 75 units in the Biomedical Physiology and Kinesiology program will be required.

PREREQUISITE

TO: BPK (or KIN) 304W (may be taken concurrently) or PSYC 210, and permission from the chair of the undergraduate program committee. Usually, upper level standing with at least 75 units in the Biomedical Physiology and Kinesiology program will be required.

LEARNING OUTCOMES

RATIONALE

BPK feels that the writing and research design content in BPK 304W are important for the preparation for directed studies students. BPK 304W is already required in both the Kinesiology and Biomedical Physiology major programs and is offered every semester. STAT 201 is a prerequisite for BPK 304W so it no longer needs to be listed.

Behavioral Neuroscience majors take PSYC 201W – Research Methods in Psychology(4) and PSYC 210 Introduction to Data Analysis in Psychology as an equivalent to BPK 304W.

Effective term and year

January 2015

NOVEMBER 2012



COURSE SUBJECT/NUMBER BPK 458

COURSE TITLE

LONG — for Calendar/schedule, no more than 100 characters including spaces and punctuation

Prevention and Management of Cardiovascular Disease

AND

SHORT — for enrollment/transcript, no more than 30 characters including spaces and punctuation

Prev. and Mgmt. of CVD

CAMPUS where course will be taught: ☐ Burnaby ☐ Surrey ☐ Vancouver ☐ Great Northern Way ☒ Off campus

COURSE DESCRIPTION (FOR CALENDAR). 50-60 WORDS MAXIMUM. ATTACH A COURSE OUTLINE TO THIS PROPOSAL.

This course takes a multi-disciplinary approach to understanding the pathology, risk factors and treatments for the prevention and management of cardiovascular disease. Physical examination, as well as non-invasive cardiac imaging techniques will be discussed and demonstrated. Both theoretical and practical perspectives inform the course's approach to the principles of behavioural change (diet, physical exercise, and smoking cessation) and risk factor management. HSCI 458 is identical to BPK 458 and students cannot receive credit for both courses. Students with credit for HSCI 471 or BPK 421 (Fall 2013) may not complete this course for further credit.

REPEAT FOR CREDIT

☐

NO

☒

YES

How many times? 1

Within a term?

☐

YES

☒

NO

LIBRARY RESOURCES

NOTE: Senate has approved (S.93-11) that no new course should be approved by Senate until funding has been committed for necessary library materials. Each new course proposal must be accompanied by a library report and, if appropriate, confirmation that funding arrangements have been addressed.

No additional resources (listed as HSCI 458 and ~~HSCI~~ 458)

Library report status

BPK

RATIONALE FOR INTRODUCTION OF THIS COURSE

There is an increasing desire, and need, for training of students within the health sciences to understand aspects of cardiovascular disease development, prevention and management as cardiovascular disease is a leading cause of death and disability in Canada and the world. The prevalence of cardiovascular disease is so high that any person working in the fitness of health fields will encounter people with cardiovascular disease. This course will prepare students who are interested in working in these fields with high-level knowledge of this condition.

SCHEDULING AND ENROLLMENT INFORMATION

Indicate effective term and year course would first be offered and planned frequency of offering thereafter:

Fall 2014 and once per year thereafter (every fall term)

SPRING 2015

Will this be a required or elective course in the curriculum?

☐

Required

☒

Elective

What is the probable enrollment when offered? Estimate:

40-60



CREDITS

Indicate number of credits (units): **3**

Indicate number of hours for: Lecture Seminar Tutorial Lab Other
online course

FACULTY Which of your present CFL faculty have the expertise to offer this course?

Scott Lear

WQB DESIGNATION (attach approval from Curriculum Office)

not applicable

PREREQUISITE

Does this course replicate the content of a previously-approved course to such an extent that students should not receive credit for both courses?
If so, this should be **noted in the prerequisite**.

BPK(or KIN) 305 or HSCI 321. Credit will not be given for both BPK 458 and HSCI 458.

COREQUISITE

none

STUDENT LEARNING OUTCOMES

Upon satisfactory completion of the course students will be able to:

- To define the underlying pathophysiology of cardiovascular disease
- To assess the risk for future events in people with and without disease
- To explain the principles of appropriate preventative management in patients at risk or with disease
- To understand strategies for behavioural change.
- To recognize the importance of co-morbidities with respect to cardiovascular disease prevention

FEES

Are there any proposed student fees associated with this course other than tuition fees? ☐ YES ☒ NO



RESOURCES

List any outstanding resource issues to be addressed prior to implementation: space, laboratory equipment, etc:

OTHER IMPLICATIONS

Articulation agreement reviewed? ☐ YES ☐ NO ☒ Not applicable

Exam required: ☒ YES ☐ NO

Criminal Record Check required: ☐ YES ☒ NO

APPROVALS: APPROVAL IS SIGNIFIED BY DATE AND APPROPRIATE SIGNATURE.

- 1 Departmental approval indicates that the Department or School has approved the content of the course, and has consulted with other Departments/Schools/Faculties regarding proposed course content and overlap issues.

Chair, Department/School

Date

Chair, Faculty Curriculum Committee

Date

- 2 Faculty approval indicates that all the necessary course content and overlap concerns have been resolved, and that the Faculty/School/Department commits to providing the required Library funds.

Dean or designate

Date

LIST which other Departments, Schools and Faculties have been consulted regarding the proposed course content, including overlap issues. Attach documentary evidence of responses.

This course is being applied for cross-listing within the Faculty of Health Sciences.

BPK 458 is identical to HSCI 458 and students cannot receive credit for both courses. Students with credit for HSCI 471 or BPK 421 (Fall 2013) may not complete this course for further credit.

Other Faculties' approval indicates that the Dean(s) or Designate of other Faculties AFFECTED by the proposed new course support(s) the approval of the new course:

Date _____

Date _____

- 3 SCUS approval indicates that the course has been approved for implementation subject, where appropriate, to financial issues being addressed.

COURSE APPROVED BY SCUS (Chair of SCUS):

Date _____

MOTION - Program Continuance Changes in Behavioral Neuroscience major program

FROM:

Program Continuation

Students must maintain a 2.5 cumulative grade point average to remain in the program, and obtain a C grade or higher in all required courses.

TO:

Program Continuation

A cumulative grade point average (CGPA) of not less than 2.20 is required for continuance in the major.

Students must obtain a final course grade of C (2.0) or better in

PSYC 201W-4 Introduction to Research Methods in Psychology

Students must have grade of C- or better in all other required courses.

Rationale : The continuance requirements for the BNS Major program will align with the requirements for other majors in Psychology and in BPK.

Motion - Program Continuance Changes in Behavioral Neuroscience honors program.

TO:

Prerequisite and Required Course Grades

Students must obtain a final course grade of C (2.0) or better in

PSYC 201W-4 Introduction to Research Methods in Psychology

Students must have grade of C- or better in all other required courses.

Rationale : The continuance requirements for the BNS Honors program will align with the requirements for other Honors programs in Psychology and in BPK. There is already a minimum GPA requirement of 3.0 for Honors programs.

(agnes agenda item # 7.4)

BPK Motion: Add BISC 202 to the list of required courses for the Biomedical Physiology Major program.

FROM:

Program Requirements

Students complete 120-121 units for this major program, as specified below.

Lower Division Requirements

Students complete all of

BISC 101 - General Biology (4)
BISC 102 - General Biology (4)
CHEM 121 - General Chemistry and Laboratory I (4)
CHEM 122 - General Chemistry II (2)
CHEM 126 - General Chemistry Laboratory II (2)
CHEM 281 - Organic Chemistry I (4)
CHEM 282 - Organic Chemistry II (2)
BPK 142 - Introduction to Kinesiology (3)
BPK 201 - Biomechanics (3)
BPK 205 - Introduction to Human Physiology (3)
BPK 207 - Human Motor Systems (3)
STAT 201 - Statistics for the Life Sciences (3)
MBB 222 - Molecular Biology and Biochemistry (3)
MBB 231 - Cellular Biology and Biochemistry (3)
and one of

MATH 150 - Calculus I with Review (4)
MATH 151 - Calculus I (3)
MATH 154 - Calculus I for the Biological Sciences (3)
and one of

MATH 152 - Calculus II (3)
MATH 155 - Calculus II for the Biological Sciences (3)
and one of

PHYS 101 - Physics for the Life Sciences I (3)
PHYS 120 - Mechanics and Modern Physics (3)
PHYS 125 - Mechanics and Special Relativity (3)
PHYS 140 - Studio Physics - Mechanics and Modern Physics (4)

and one of

PHYS 102 - Physics for the Life Sciences II (3)

PHYS 121 - Optics, Electricity and Magnetism (3)

PHYS 126 - Electricity, Magnetism and Light (3)

PHYS 141 - Studio Physics - Optics, Electricity and Magnetism (4)

TO:

Program Requirements

Students complete 120-121 units for this major program, as specified below.

Lower Division Requirements

Students complete all of

BISC 101 - General Biology (4)

BISC 102 - General Biology (4)

BISC 202 – Genetics (3)

CHEM 121 - General Chemistry and Laboratory I (4)

CHEM 122 - General Chemistry II (2)

CHEM 126 - General Chemistry Laboratory II (2)

CHEM 281 - Organic Chemistry I (4)

CHEM 282 - Organic Chemistry II (2)

BPK 142 - Introduction to Kinesiology (3)

BPK 201 - Biomechanics (3)

BPK 205 - Introduction to Human Physiology (3)

BPK 207 - Human Motor Systems (3)

STAT 201 - Statistics for the Life Sciences (3)

MBB 222 - Molecular Biology and Biochemistry (3)

MBB 231 - Cellular Biology and Biochemistry (3)

and one of

MATH 150 - Calculus I with Review (4)

MATH 151 - Calculus I (3)

MATH 154 - Calculus I for the Biological Sciences (3)

and one of

MATH 152 - Calculus II (3)

MATH 155 - Calculus II for the Biological Sciences (3)

and one of

(agnes memo # 7.4 continued)

BPK Motion: Add BISC 202 to the list of required courses for the Biomedical Physiology Honors program.

FROM:

Program Requirements

Students complete a total of 132 units as specified below.

Minimum Grade

Honours students must achieve a minimum CGPA of 3.00 on all relevant measures (CGPA, upper division grade point average, department grade point average, department upper division grade point average).

Lower Division Requirements

A total of 54-56 lower division units in required, as follows.

Students complete all of

BISC 101 - General Biology (4)
BISC 102 - General Biology (4)
CHEM 121 - General Chemistry and Laboratory I (4)
CHEM 122 - General Chemistry II (2)
CHEM 126 - General Chemistry Laboratory II (2)
CHEM 281 - Organic Chemistry I (4)
CHEM 282 - Organic Chemistry II (2)
BPK 142 - Introduction to Kinesiology (3)
BPK 201 - Biomechanics (3)
BPK 205 - Introduction to Human Physiology (3)
BPK 207 - Human Motor Systems (3)
STAT 201 - Statistics for the Life Sciences (3)
MBB 222 - Molecular Biology and Biochemistry (3)
MBB 231 - Cellular Biology and Biochemistry (3)
and one of

MATH 150 - Calculus I with Review (4)
MATH 151 - Calculus I (3)
MATH 154 - Calculus I for the Biological Sciences (3)
and one of

MATH 152 - Calculus II (3)
MATH 155 - Calculus II for the Biological Sciences (3)
and one of

PHYS 101 - Physics for the Life Sciences I (3)
PHYS 120 - Mechanics and Modern Physics (3)
PHYS 125 - Mechanics and Special Relativity (3)
PHYS 140 - Studio Physics - Mechanics and Modern Physics (4)
and one of

PHYS 102 - Physics for the Life Sciences II (3)
PHYS 121 - Optics, Electricity and Magnetism (3)
PHYS 126 - Electricity, Magnetism and Light (3)
PHYS 141 - Studio Physics - Optics, Electricity and Magnetism (4)

TO:

Program Requirements

Students complete a total of 132 units as specified below.

Minimum Grade

Honours students must achieve a minimum CGPA of 3.00 on all relevant measures (CGPA, upper division grade point average, department grade point average, department upper division grade point average).

Lower Division Requirements

A total of **57-59** lower division units in required, as follows.

Students complete all of

BISC 101 - General Biology (4)
BISC 102 - General Biology (4)
BISC 202 – Genetics (3)
CHEM 121 - General Chemistry and Laboratory I (4)
CHEM 122 - General Chemistry II (2)
CHEM 126 - General Chemistry Laboratory II (2)
CHEM 281 - Organic Chemistry I (4)
CHEM 282 - Organic Chemistry II (2)
BPK 142 - Introduction to Kinesiology (3)
BPK 201 - Biomechanics (3)
BPK 205 - Introduction to Human Physiology (3)
BPK 207 - Human Motor Systems (3)
STAT 201 - Statistics for the Life Sciences (3)
MBB 222 - Molecular Biology and Biochemistry (3)
MBB 231 - Cellular Biology and Biochemistry (3)
and one of



COURSE SUBJECT/NUMBER BISC 113

COURSE TITLE

LONG — for Calendar/schedule, no more than 100 characters including spaces and punctuation

Biology in Everyday Life

AND

SHORT — for enrollment/transcript, no more than 30 characters including spaces and punctuation

Biology in Everyday Life

CAMPUS where course will be taught: ☒ Burnaby ☐ Surrey ☐ Vancouver ☐ Great Northern Way ☒ Off campus

COURSE DESCRIPTION (FOR CALENDAR). 50-60 WORDS MAXIMUM. ATTACH A COURSE OUTLINE TO THIS PROPOSAL.

This course emphasizes evolution and scientific inquiry as unifying themes. The diversity and the unity of all living organisms and the methods by which biologists answer questions about the living world are presented in this context. Topics covered include evolution, characteristics of living organisms, reproduction, metabolism, and ecology.

REPEAT FOR CREDIT ☒ NO ☐ YES How many times? Within a term? ☐ YES ☒ NO

LIBRARY RESOURCES

NOTE: Senate has approved (S.93-11) that no new course should be approved by Senate until funding has been committed for necessary library materials. Each new course proposal must be accompanied by a library report and, if appropriate, confirmation that funding arrangements have been addressed.

status - completed, no new resources required

Library report status

RATIONALE FOR INTRODUCTION OF THIS COURSE

BISC 100DE has been offered as a distance education version of BISC 100 and designated as a lab course. Upon review, it has been determined that the course does not sufficiently fulfill the requirements for a lab course. This new course would provide students with content similar to BISC 100, the flexibility of a DE course but without the lab designation. This course would also fulfill the requirements for a "breadth-science course".

SCHEDULING AND ENROLLMENT INFORMATION

Indicate effective **term and year** course would first be offered and planned **frequency** of offering thereafter:

1154, twice a year: Summer and Fall terms

Will this be a required or elective course in the curriculum? ☐ Required ☒ Elective

What is the probable enrollment when offered? Estimate: 70 students



CREDITS

Indicate number of credits (units): **three**

Indicate number of hours for:	Lecture	Seminar	Tutorial	Lab	Other
	3				

FACULTY Which of your present CFL faculty have the expertise to offer this course?

J. Sharp, T. McMullan

WQB DESIGNATION (attach approval from Curriculum Office)

none

PREREQUISITE

Does this course replicate the content of a previously-approved course to such an extent that students should not receive credit for both courses?
If so, this should be **noted in the prerequisite**.

None. Students with credit for HSCI 100, BISC 101,102, or succeeding Biology courses, may not take BISC 113 for further credit. Students with a C or better in Biology 12, who are considering a BISC major, are encouraged to proceed directly to BISC 101 and 102. Breadth–Science.

COREQUISITE

none

STUDENT LEARNING OUTCOMES

Upon satisfactory completion of the course students will be able to:

Upon satisfactory completion of the course students will have an appreciation of the following concepts:

1. Natural selection plays an important role in fostering the biodiversity on Earth.
2. Adaptations connect form and function of organisms to their environment.
3. All organisms (including students) are connected. Our actions, behaviors, and biological processes are interdependent with other organisms.
4. The microscopic world formulates the network of structure and processes we see in the macroscopic world.
5. Biology is not static, but continually shaped by new discoveries arising from the scientific process.

FEES

Are there any proposed student fees associated with this course other than tuition fees? ☐ YES ☒ NO



RESOURCES

List any outstanding resource issues to be addressed prior to implementation: space, laboratory equipment, etc:

OTHER IMPLICATIONS

Articulation agreement reviewed? ☐ YES ☐ NO ☒ Not applicable

Exam required: ☒ YES ☐ NO

Criminal Record Check required: ☐ YES ☒ NO

APPROVALS: APPROVAL IS SIGNIFIED BY DATE AND APPROPRIATE SIGNATURE.

- 1 Departmental approval indicates that the Department or School has approved the content of the course, and has consulted with other Departments/Schools/Faculties regarding proposed course content and overlap issues.

Chair, Department/School

Date

Chair, Faculty Curriculum Committee

Date

- 2 Faculty approval indicates that all the necessary course content and overlap concerns have been resolved, and that the Faculty/School/Department commits to providing the required Library funds.

Dean or designate

Date

LIST which other Departments, Schools and Faculties have been consulted regarding the proposed course content, including overlap issues. Attach documentary evidence of responses.

CODE

Other Faculties' approval indicates that the Dean(s) or Designate of other Faculties AFFECTED by the proposed new course support(s) the approval of the new course:

Date _____

Date _____

- 3 SCUS approval indicates that the course has been approved for implementation subject, where appropriate, to financial issues being addressed.

COURSE APPROVED BY SCUS (Chair of SCUS):

Date _____



UNIVERSITY CURRICULUM AND INSTITUTIONAL LIAISON
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MEMORANDUM

ATTENTION George Agnes, Associate Dean, FSci

DATE March 7, 2014

FROM Susan Rhodes, Director
University Curriculum & Institutional Liaison

PAGES 1

RE: Breadth designation approval

The University Curriculum Office has approved Breadth designation for the following course, effective Fall 2014 (1147):

BISC 113-3 Biology in Everyday Life – B-Sci

cc: Gordon Rintoul, Biological Sciences, UGC chair



EXISTING COURSE, CHANGES RECOMMENDED

Please check appropriate revision(s):

☐ Course number ☐ Credit ☐ Title ☐ Description ☒ Prerequisite ☐ Course deletion ☐ Learning Outcomes

Indicate number of hours for: Lecture 3 Seminar _____ Tutorial 1 Lab 3

FROM **TO**
Course Subject/Number BISC 100 Course Subject/Number _____
Credits 4 Credits _____

TITLE

(1) LONG title for calendar and schedule, no more than 100 characters including spaces and punctuation.

FROM: **TO:**

(2) SHORT title for enrollment and transcript, no more than 30 characters including spaces and punctuation.

FROM: **TO:**

DESCRIPTION

FROM:

DESCRIPTION

TO:

PREREQUISITE

Does this course replicate the content of a previously approved course to such an extent that students should not receive credit for both courses?

If so, this should be **noted in the prerequisite**.

FROM: Students with a C or better in Biology 12, who are considering a BISC Major, are encouraged to proceed directly to BISC 101 and 102. Students with credit for BISC 101 or 102, or succeeding biology courses, may not take BISC 100 for further credit.

PREREQUISITE

TO: Students with a C or better in Biology 12, who are considering a BISC Major, are encouraged to proceed directly to BISC 101 and 102. Students with credit for BISC 101, 102 or 113, or succeeding biology courses may not take BISC 100 for further credit. Breadth-Science.

LEARNING OUTCOMES

RATIONALE

Effective term and year

1151

NOVEMBER 2012



EXISTING COURSE, CHANGES RECOMMENDED

Please check appropriate revision(s):

☐ Course number ☐ Credit ☐ Title ☐ Description ☒ Prerequisite ☐ Course deletion ☐ Learning Outcomes

Indicate number of hours for: Lecture 3 Seminar _____ Tutorial 1 Lab 2

FROM **TO**
Course Subject/Number BISC 101 Course Subject/Number _____
Credits 4 Credits _____

TITLE

(1) LONG title for calendar and schedule, no more than 100 characters including spaces and punctuation.

FROM: **TO:**

(2) SHORT title for enrollment and transcript, no more than 30 characters including spaces and punctuation.

FROM: **TO:**

DESCRIPTION

FROM:

High school biology 12 (or equivalent) with a C grade or better, or BISC 100 with C- or better, or HSCI 100 with C+ or better.

DESCRIPTION

TO:

PREREQUISITE

Does this course replicate the content of a previously approved course to such an extent that students should not receive credit for both courses?
If so, this should be **noted in the prerequisite**.

FROM: High school biology 12 (or equivalent) with a C grade or better, or BISC 100 with C- or better, or HSCI 100 with C+ or better.

PREREQUISITE

TO: High school biology 12 (or equivalent) with a C grade or better, or BISC 100 with C- or better, or BISC 113 with C- or better, or HSCI 100 with C+ or better.

LEARNING OUTCOMES

RATIONALE



EXISTING COURSE, CHANGES RECOMMENDED

Please check appropriate revision(s):

☐ Course number ☐ Credit ☐ Title ☐ Description ☒ Prerequisite ☐ Course deletion ☐ Learning Outcomes

Indicate number of hours for: Lecture 2 Seminar _____ Tutorial 1 Lab 3

FROM **TO**
Course Subject/Number BISC 102 Course Subject/Number _____
Credits 4 Credits _____

TITLE

(1) LONG title for calendar and schedule, no more than 100 characters including spaces and punctuation.

FROM: _____ **TO:** _____

(2) SHORT title for enrollment and transcript, no more than 30 characters including spaces and punctuation.

FROM: _____ **TO:** _____

DESCRIPTION

FROM:

High school biology 12 (or equivalent) with a C grade or better, or BISC 100 with C- or better, or HSCI 100 with C+ or better.

DESCRIPTION

TO:

PREREQUISITE

Does this course replicate the content of a previously approved course to such an extent that students should not receive credit for both courses? If so, this should be **noted in the prerequisite**.

FROM: High school biology 12 (or equivalent) with a C grade or better, or BISC 100 with C- or better, or HSCI 100 with C+ or better.

PREREQUISITE

TO: High school biology 12 (or equivalent) with a C grade or better, or BISC 100 with C- or better, or BISC 113 with C- or better, or HSCI 100 with C+ or better.

LEARNING OUTCOMES

RATIONALE

BISC 113 is a new course that can also be used as a prerequisite for BISC 101.

CHEM 482 reclassification request

From : Daniel Leznoff <dleznoff@sfu.ca>

Mon, 24 Mar, 2014 23:53

Subject : CHEM 482 reclassification request**To :** Jo Hinchliffe <joah@sfu.ca>**Cc :** Mike Peragine <michele_peragine@sfu.ca>, Chemistry
Academic Advisor <chemadv@sfu.ca>

Dear Jo,

As Chair of the Chemistry Undergraduate Studies Committee, I would like to request that CHEM 482 (Directed Study in Advanced Topics in Chemistry) be reclassified so that:

1. The course to be repeated for credit; and
2. Please allow for multiple enrollments of this course within the same term.

Each course offering is personalized between a student, a supervisor and a specific topic, and so there is no reason why a student could not take two CHEM 482 topics with two different supervisors (we would not approve it if it were the same supervisor); this could also be done in the same term, if desired. We have a case now that wishes to do this.

If you require any further information or a more formal memo, please let me know.

Thanks very much,

Danny Leznoff

Professor and Chemistry Undergraduate Studies Committee Chair
