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MEMORANDUM

ATTENTION	Senate	DATE	March 2, 2012
FROM	Bill Krane, Chair	PAGES	1/1
	Senate Committee on		
	Undergraduate Studies		
RE:	Faculty of Health Sciences (SCUS 12-15)		

For information:

Acting under delegated authority at its meeting of March 1, 2012, SCUS approved the following curriculum revisions effective Fall 2012:

1. B-Sci Designation for HSCI 100
2. Establishment of internal transfer criteria for the BA and BSc
3. Course number and prerequisite change to HSCI 438
4. Upper Division Requirement changes to the Life Sciences Concentration
5. Prerequisite change to HSCI 439, 441, 482

Senators wishing to consult a more detailed report of curriculum revisions may do so by going to DocuShare: <https://docushare.sfu.ca/dsweb/View/Collection-12682>
If you are unable to access the information, please call [778-782-3168](tel:778-782-3168) or email shelley_gair@sfu.ca.



SIMON FRASER UNIVERSITY
THINKING OF THE WORLD

FACULTY OF HEALTH SCIENCES

PHONE (778) 782-4821
FAX (778) 782-5927

MEMORANDUM

TO: Bill Krane and the Senate Committee on Undergraduate Studies

FROM: Mark Lechner, Director, Undergraduate Programs, Faculty of Health Sciences

RE: HSCI 100 B-Science certification

DATE: February 21, 2012

- On February 6th, 2012 the Faculty of Health Sciences Undergraduate Studies Committee approved a Breadth – Science designation for HSCI 100 *Human Biology* course
- The effective date sought is Fall 2012
- The following are attached:
 - University Curriculum Office approval
 - Breadth designation form
 - Most recent syllabus

Please place these items on the agenda for the next SCUS meeting.

Regards,

Mark S Lechner

FACULTY OF HEALTH SCIENCES
BLUSSON HALL, ROOM 11300,
SIMON FRASER UNIVERSITY,
8888 UNIVERSITY DRIVE,
BURNABY BC,
CANADA, V5A 1S6



UNIVERSITY CURRICULUM & INSTITUTIONAL LIAISON
OFFICE OF THE VICE PRESIDENT ACADEMIC AND PROVOST

MEMO

ADDRESS
8888 UNIVERSITY DRIVE
BURNABY BC V5A 1S6
CANADA

ATTENTION Margo Moore, Associate Dean HSCI | TEL

FROM SUSAN RHODES, Assistant Director, University Curriculum and
Institutional Liaison

RE B-Sci approval

DATE February 21, 2012

TIME 3:57 PM

The University Curriculum Office has approved the following:

HSCI 100 – B-Sci – effective 1127

Please forward this memo to your Faculty UCC and SCUS so that it proceeds
to Senate for final approval.



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MEMORANDUM

TO: Bill Krane and the Senate Committee on Undergraduate Studies

FROM: Mark Lechner, Director, Undergraduate Programs, Faculty of Health Sciences

RE: Internal transfer criteria

DATE: February 24, 2012

- On January 9th, 2012 the Faculty of Health Sciences Undergraduate Studies Committee approved criteria for internal transfer into the major programs (B.A. and B.Sc.) in the Faculty of Health Sciences:
 - Internal transfer allows students to transfer, within Simon Fraser University, from one faculty to another. Students can apply for internal transfer into the Faculty of Health Sciences with a minimum CGPA of 2.5 and after completion of one of the following 200-level HSCI courses with a minimum grade of C-: HSCI 211-3, HSCI 212-3, HSCI 214-3, HSCI 215-3, or HSCI 216-3. ~~No course may be included in the CGPA if it is a duplicate of any previous course completed at Simon Fraser University or elsewhere.~~
 - This change would apply to majors and honours programs for B.A. and B.Sc. students in the Faculty of Health Sciences and could be placed before the 'Residency Requirements and Transfer Credit' section in the Calendar

Please place this item on the agenda for the next SCUS meeting.

FACULTY OF HEALTH SCIENCES
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MEMORANDUM

TO: Bill Krane and the Senate Committee on Undergraduate Studies

FROM: Mark Lechner, Director, Undergraduate Programs, Faculty of Health Sciences

RE: Change in virology coursework in the B.Sc. curriculum

DATE: February 21, 2012

- On February 6th, 2012 the Faculty of Health Sciences Undergraduate Studies Committee approved course revisions and accompanying changes to the calendar descriptions for B.Sc. majors and honours.
- The effective date sought is Fall 2012
- The following documents are attached:
 - Course number change and prerequisite change, HSCI 438 to HSCI 338
 - Changes in the prerequisites for HSCI 439
 - Changes in the prerequisites for HSCI 441
 - Changes in the prerequisites for HSCI 482
 - HSCI 338 calendar change for BSc Life Sciences program

Please place these items on the agenda for the next SCUS meeting.

Regards,

Mark S Lechner

FACULTY OF HEALTH SCIENCES
BLUSSON HALL, ROOM 11300,
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8888 UNIVERSITY DRIVE,
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SIMON FRASER UNIVERSITY
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FACULTY OF HEALTH SCIENCES

PHONE (778) 782-4821
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MEMORANDUM

TO: Senate Committee on Undergraduate Studies

FROM: Mark Lechner, Director, Undergraduate Programs, Faculty of Health Sciences

RE: Change HSCI 438 Animal Virology to HSCI 338 in the Life Sciences Concentration

DATE: February 21, 2012

We are asking SCUS to consider approval of the following change in BSc Program Requirements for majors and honours in the life sciences concentration:

- course number change HSCI 438 to HSCI 338

RATIONALE

These changes are designed to provide students with more choices for prerequisites and to streamline their program. Currently, HSCI 438 *Animal Virology* is a prerequisite for three 400-level HSCI courses. As a result, students are only able to register for HSCI 441, 439 and 482 in the second semester of their fourth year, thus restricting their enrolment options. *Animal Virology* can be taught at the 300-level, and MBB 222 will provide the appropriate foundation in molecular biology. Thus, by changing HSCI 438 to HSCI 338, students will be able to take *Animal Virology* in their third year, providing more flexibility and course availability in their fourth year.

Effective date: Fall 2012



SENATE COMMITTEE ON
UNDERGRADUATE STUDIES

COURSE CHANGE/DELETION

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 0 Tutorial 0 Lab 0

FROM TO
Course Subject/Number HSCI 438 HSCI 338
Credits 3 Credits _____

TITLE

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

FROM: TO:

Animal Virology

(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:

MBB 331 – Molecular Biology
BISC 303 - Microbiology

PREREQUISITE

TO:

MBB 222 – Molecular Biology and Biochemistry
BISC 303 – Microbiology (co-requisite)

LEARNING OUTCOMES

Define and discuss technical terms used in the field of animal virology and viral infectious diseases.
Compare survival strategies of different viruses by evaluating their approaches to transmission, replication, infection cycle and host interaction.
Explain the advantages and disadvantages of several experimental approaches used in modern and classical virology
Critique a peer-reviewed journal article on a course related topic.

RATIONALE

These changes are designed to provide students with more choices for prerequisites and to streamline their program. Currently, HSCI 438 is a prerequisite for three 400-level HSCI courses. As a result, students are only able to register for HSCI 441, 439 and 482 in the second semester of their fourth year, thus restricting their enrollment options. Animal Virology can be taught at the 300-level, and MBB 222 will provide the appropriate foundation in molecular biology. Thus, by changing HSCI 438 to HSCI 338, students will be able to take Animal Virology in their third year, providing more flexibility and freedom in their fourth year.

Effective term and year _____

NOVEMBER 2011

FROM

Life Sciences Concentration

Upper Division Requirements (46 units minimum)

Students complete all of

- * HSCI 305-3 The Canadian Health System
- * HSCI 321-3 Human Pathophysiology
- * HSCI 324-3 Human Population Genetics and Evolution
- * HSCI 330-3 Exploratory Strategies in Epidemiology
- * MBB 308-3 Molecular Biology Laboratory
- * MBB 331-3 Molecular Biology
- * STAT 302-3 Analysis of Experimental and Observational Data

and one of

- * HSCI 319W-3 Applied Health Ethics
- * HSCI 327-3 Global Health Ethics
- * PHIL 319W-3 Applied Health Ethics

Students must complete a minimum of at least seven of the following courses, which include a minimum of one as indicated by *, a minimum of one indicated by **, and a minimum of two indicated by ***.

- * BISC 300-3 Evolution
- * BISC 302-3 Genetic Analysis
- * BISC 303-4 Microbiology
- * BISC 304-3 Animal Ecology
- * BISC 313-3 Environmental Toxicology
- * BISC 333-3 Developmental Biology
- * BISC 405-3 Neurobiology
- * BISC 418-3 Parasitology
- * BISC 422-3 Population Genetics
- * BISC 441-3 Evolution of Health and Disease

- * CHEM 360-3 Thermodynamics and Chemical Kinetics
- * CHEM 371-3 Chemistry of the Aqueous Environment
- * CHEM 372-3 Chemistry of the Atmospheric Environment

- * HSCI 323-3 Principles of Pharmacology and Toxicology*
- * HSCI/MBB 426-4 Immune System I: Basis of Innate and Adaptive Immunity*
- * HSCI/MBB 427-3 Immune System II: Immune Responses in Health and Disease***
- * HSCI 438-3 Animal Virology*
- * HSCI 439-3 Pathogenesis of Human and Animal Viral Infectious Diseases***
- * HSCI 440-4 Cell Pathophysiology Laboratory**
- * HSCI 441-4 Virology Laboratory**
- * HSCI 442-4 Immunology Laboratory**
- * HSCI 443-4 Molecular Toxicology Laboratory**

- * HSCI 474-3 Seminar in Neuropharmacology***
- * HSCI 475-3 Seminar in Molecular Mechanisms of Epigenetics***
- * HSCI 476-3 Seminar in Molecular Basis of Drug Action and Environmental Exposure***
- * HSCI 477-3 Seminar in Vaccine Immunology***
- * HSCI 478-3 Seminar in Molecular Epidemiology of Infectious Diseases***
- * HSCI 479-3 Seminar in Aging-Related Neurodegenerative Disease***
- * HSCI 482-3 Senior Seminar in Infectious Diseases***

- * KIN 305-3 Human Physiology I
- * KIN 306-3 Human Physiology II (Principles of Physiological Regulation)
- * KIN 407-3 Human Physiology Laboratory
- * KIN 412-3 Molecular and Cellular Cardiology
- * KIN 431-3 Environmental Carcinogenesis
- * KIN 446-3 Neurological Disorders

- * MBB 309-4 Biochemistry Laboratory
- * MBB 321-3 Intermediary Metabolism
- * MBB 322-3 Molecular Physiology
- * MBB 323-3 Introduction to Physical Biochemistry
- * MBB 421-3 Nucleic Acids
- * MBB 422-3 Biomembranes
- * MBB 423-3 Protein Structure and Function
- * MBB 424-3 Membrane Transport Mechanisms
- * MBB 428-3 Molecular Mechanisms of Microbial Pathogenesis
- * MBB 430-3 Mechanisms of Secretory Transport
- * MBB 431-3 Cells and Disease
- * MBB 432-3 Advanced Molecular Biology Techniques
- * MBB 435-3 Genome Biology
- * MBB 436-3 Gene Expression
- * MBB 437-3 Selected Topics in Signal Transduction
- * MBB 438-3 Human Molecular Genetics
- * MBB 441-3 Bioinformatics
- * MBB 442-3 Proteomics
- * MBB 443-3 Protein Biogenesis and Degradation
- * MBB 444-3 Developmental Neurobiology

- * PHYS 347-3 Introduction to Biological Physics
- * PHYS 433-3 Biological Physics Laboratory
- * REM 445-3 Environmental Risk Assessment

TO

Life Sciences Concentration

Upper Division Requirements (46 units minimum)

Students complete all of

- * HSCI 305-3 The Canadian Health System

- * HSCI 321-3 Human Pathophysiology
- * HSCI 324-3 Human Population Genetics and Evolution
- * HSCI 330-3 Exploratory Strategies in Epidemiology
- * MBB 308-3 Molecular Biology Laboratory
- * MBB 331-3 Molecular Biology
- * STAT 302-3 Analysis of Experimental and Observational Data

and one of

- * HSCI 319W-3 Applied Health Ethics
- * HSCI 327-3 Global Health Ethics
- * PHIL 319W-3 Applied Health Ethics

Students must complete a minimum of at least seven of the following courses, which include a minimum of one as indicated by *, a minimum of one indicated by **, and a minimum of two indicated by ***.

- * BISC 300-3 Evolution
- * BISC 302-3 Genetic Analysis
- * BISC 303-4 Microbiology
- * BISC 304-3 Animal Ecology
- * BISC 313-3 Environmental Toxicology
- * BISC 333-3 Developmental Biology
- * BISC 405-3 Neurobiology
- * BISC 418-3 Parasitology
- * BISC 422-3 Population Genetics
- * BISC 441-3 Evolution of Health and Disease
- * CHEM 360-3 Thermodynamics and Chemical Kinetics
- * CHEM 371-3 Chemistry of the Aqueous Environment
- * CHEM 372-3 Chemistry of the Atmospheric Environment
- * HSCI 323-3 Principles of Pharmacology and Toxicology*
- * HSCI 338-3 Animal Virology*
- * HSCI/MBB 426-4 Immune System I: Basis of Innate and Adaptive Immunity*
- * HSCI/MBB 427-3 Immune System II: Immune Responses in Health and Disease***
- * HSCI 439-3 Pathogenesis of Human and Animal Viral Infectious Diseases***
- * HSCI 440-4 Cell Pathophysiology Laboratory**
- * HSCI 441-4 Virology Laboratory**
- * HSCI 442-4 Immunology Laboratory**
- * HSCI 443-4 Molecular Toxicology Laboratory**
- * HSCI 474-3 Seminar in Neuropharmacology***
- * HSCI 475-3 Seminar in Molecular Mechanisms of Epigenetics***
- * HSCI 476-3 Seminar in Molecular Basis of Drug Action and Environmental Exposure***
- * HSCI 477-3 Seminar in Vaccine Immunology***
- * HSCI 478-3 Seminar in Molecular Epidemiology of Infectious Diseases***
- * HSCI 479-3 Seminar in Aging-Related Neurodegenerative Disease***
- * HSCI 482-3 Senior Seminar in Infectious Diseases***
- * KIN 305-3 Human Physiology I
- * KIN 306-3 Human Physiology II (Principles of Physiological Regulation)

- * KIN 407-3 Human Physiology Laboratory
- * KIN 412-3 Molecular and Cellular Cardiology
- * KIN 431-3 Environmental Carcinogenesis
- * KIN 446-3 Neurological Disorders

- * MBB 309-4 Biochemistry Laboratory
- * MBB 321-3 Intermediary Metabolism
- * MBB 322-3 Molecular Physiology
- * MBB 323-3 Introduction to Physical Biochemistry
- * MBB 421-3 Nucleic Acids
- * MBB 422-3 Biomembranes
- * MBB 423-3 Protein Structure and Function
- * MBB 424-3 Membrane Transport Mechanisms
- * MBB 428-3 Molecular Mechanisms of Microbial Pathogenesis
- * MBB 430-3 Mechanisms of Secretory Transport
- * MBB 431-3 Cells and Disease
- * MBB 432-3 Advanced Molecular Biology Techniques
- * MBB 435-3 Genome Biology
- * MBB 436-3 Gene Expression
- * MBB 437-3 Selected Topics in Signal Transduction
- * MBB 438-3 Human Molecular Genetics
- * MBB 441-3 Bioinformatics
- * MBB 442-3 Proteomics
- * MBB 443-3 Protein Biogenesis and Degradation
- * MBB 444-3 Developmental Neurobiology

- * PHYS 347-3 Introduction to Biological Physics
- * PHYS 433-3 Biological Physics Laboratory
- * REM 445-3 Environmental Risk Assessment



SENATE COMMITTEE ON
UNDERGRADUATE STUDIES

COURSE CHANGE/DELETION

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 0 Tutorial 0 Lab 0

FROM

Course Subject/Number HSCI 439

Credits 3

TO

Course Subject/Number _____

Credits _____

TITLE

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

FROM:

TO:

Pathogenesis of human and animal viral
infectious diseases

(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:

HSCI 438 - Animal virology
HSCI 321- Human pathophysiology

PREREQUISITE

TO:

HSCI 338 - Animal virology
HSCI 321- Human pathophysiology

LEARNING OUTCOMES

This course discusses animal viral pathogenesis at the molecular, cellular and individual host levels by using a textbook and research articles. This course organizes basic natural science knowledge in the context of human and animal viral infectious diseases to reveal the interconnections among diverse fields of knowledge. By completing this course, students will be knowledgeable in the terms and concepts in the field of viral infectious diseases. In addition, students will be able to critically read scientific research papers and summarize the contents. Furthermore, it is expected that students will understand the significance of scientific findings in the larger context of human and animal viral diseases.

RATIONALE

This request reflects the course number change of the prerequisite course from HSCI 438 to HSCI 338.

Effective term and year _____

NOVEMBER 2011



SENATE COMMITTEE ON
UNDERGRADUATE STUDIES

COURSE CHANGE/DELETION

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 0 Seminar 0 Tutorial 0 Lab 4

FROM TO
Course Subject/Number HSCI 441 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:

Virology Laboratory

(2) Short title for enrolment 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:

HSCI 438 - Animal virology
MBB 308 - Molecular Biology Laboratory

PREREQUISITE

TO:

HSCI 338 - Animal virology
One of: BISC 357 - Gene Cloning, MBB 308 - Molecular Biology Laboratory,
or MBB 309 - Biochemistry Laboratory

LEARNING OUTCOMES

By completing this course, the student will gain hands-on laboratory experience in basic experimental techniques commonly used in animal virology including plaque assay, TCID₅₀, virus culture and purification, PCR and hemagglutination and neutralization assays.

RATIONALE

This request reflects the course number change of the prerequisite course from HSCI 438 to HSCI 338. In addition, we have added more options for prerequisite laboratory courses. Previously, students could only use MBB 308 as a prerequisite. We are adding BISC 357 or MBB 309 as alternative prerequisites since any of these options will provide sufficient laboratory training to prepare the student for HSCI 441. Allowing students to come into HSCI 441 with alternative prerequisites broadens their course options and reduces bottlenecks to registration that exist by restricting students to a high-demand prerequisite.

Effective term and year _____

NOVEMBER 2011



SENATE COMMITTEE ON
UNDERGRADUATE STUDIES

COURSE CHANGE/DELETION

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 0 Seminar 3 Tutorial 0 Lab 0

FROM TO
Course Subject/Number HSCI 482 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:

Senior seminar in infectious disease

(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:

HSCI 438- Animal virology
MBB/HSCI 426 - Immune System I: Basis of Innate and Adaptive Immunity

PREREQUISITE

TO:

HSCI 338 - Animal virology
MBB/HSCI 426 - Immune System I: Basis of Innate and Adaptive Immunity

LEARNING OUTCOMES

Identify key issues affecting control and prevention of infectious disease and understand the relationships between molecular pathogenesis and host immunity. Develop and practice strategies for selecting, reading, and critiquing peer-reviewed journal articles within the context of the course material. Demonstrate appropriate use of scientific literature by: i) synthesizing a review of a specific infectious disease issue, and ii) using published studies as a foundation for a proposed solution.

RATIONALE

This request reflects the course number change of the prerequisite course from HSCI 438 to HSCI 338. This is an advanced course so MBB/HSCI 426 - Immune System I: Basis of Innate and Adaptive Immunity will remain as a prerequisite.

Effective term and year _____

NOVEMBER 2011