



OFFICE OF THE ASSOCIATE VICE-PRESIDENT, ACADEMIC AND  
ASSOCIATE PROVOST

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**MEMORANDUM**

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

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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](mailto:shelley_gair@sfu.ca).



SIMON FRASER UNIVERSITY  
THINKING OF THE WORLD

FACULTY OF HEALTH SCIENCES

PHONE (778) 782-4821

FAX (778) 782-5927

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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:** HSCI 100 B-Science certification

**DATE:** February 21, 2012

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- On February 6<sup>th</sup>, 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,

A handwritten signature in black ink, appearing to read "Mark S Lechner", written in a cursive style.

Mark S Lechner

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

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- On January 9<sup>th</sup>, 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.

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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

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- On February 6<sup>th</sup>, 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

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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

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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**

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## **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
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- \* 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
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- \* MBB 309-4 Biochemistry Laboratory
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- \* 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





**EXISTING COURSE, CHANGES RECOMMENDED**

Please check appropriate revision(s):

Course number    Credit    Title    Description    Prerequisite    Course deletion    Learning Outcome

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 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 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 \_\_\_\_\_



**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 \_\_\_\_\_