



OFFICE OF THE ASSOCIATE VICE-PRESIDENT, ACADEMIC AND  
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**MEMORANDUM**

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<b>ATTENTION</b>	Senate	<b>DATE</b>	December 2, 2011
<b>FROM</b>	Bill Krane, Chair Senate Committee on Undergraduate Studies	<b>PAGES</b>	1/1
<b>RE:</b>	Faculty of Health Sciences (SCUS 11-54)		

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**For information:**

Acting under delegated authority at its meeting of December 1, 2011, SCUS approved the following curriculum revisions effective Fall 2012:

1. Upper Division Requirement changes to the:
  - BA and BSc Major and Honors programs
  - BSc Program with Population and Quantitative Health Sciences Concentration
  - BSc Program with Life Sciences Concentration

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:** Senate Committee on Undergraduate Studies

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

**RE:** Change in Program Requirements for B.Sc. and B.A. in the Faculty of Health Sciences

**DATE:** November 22, 2011

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On November 7<sup>th</sup>, 2011 the Faculty of Health Sciences Undergraduate Studies Committee approved revisions to the calendar descriptions of B.Sc. and B.A. programs.

- Program change for B.Sc. with Population and Quantitative Health Sciences Concentration
- Program change for B.Sc. with Life Sciences Concentration
- Program change for B.A.

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".

Mark S Lechner

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FACULTY OF HEALTH SCIENCES

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MEMORANDUM

TO: Senate Committee on Undergraduate Studies

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

RE: Change in BA <sup>AND BSc</sup> Program Requirements *FOR THE MAJOR AND HONORS DEGREE PROGRAMS.*

DATE: November 22, 2011

We are asking SCUS to consider approval of the following change in BSc Program Requirements:

FROM

*AND  
BA*

**Upper Division Requirements**

Students complete a total of at least 45 units, including all of

- \* HSCI 304-3 Perspectives on Environmental Health
- \* HSCI 305-3 The Canadian Health System
- \* HSCI 307-3 Research Methods in Health Sciences
- \* HSCI 312-3 Health Promotion: Individuals and Communities
- \* HSCI 330-3 Exploratory Strategies in Epidemiology
- \* HSCI 340-3 Social Determinants of Health
- \* STAT 302-3 Analysis of Experimental and Observational Data

and one of

- \* HSCI 319W-3 Applied Health Ethics
- \* HSCI 320-3 Global Health Ethics
- \* PHIL 319W-3 Applied Health Ethics

and one of

- \* HSCI 481-3 Senior Seminar in Social Health Science

- \* HSCI 482-3 Senior Seminar in Infectious Diseases
- \* HSCI 483-3 Senior Seminar in Environmental Health
- \* HSCI 484-3 Senior Seminar in Population Health Research
- \* HSCI 485-3 Senior Seminar in Mental Health and Addictions
- \* HSCI 486-3 Senior Seminar in Global Health

and a minimum of six additional upper division courses related to the major, including at least 12 HSCI units.

## TO

### **Upper Division Requirements**

Students complete a total of at least 45 units, including all of

- \* HSCI 304-3 Perspectives on Environmental Health
- \* HSCI 305-3 The Canadian Health System
- \* HSCI 307-3 Research Methods in Health Sciences
- \* HSCI 312-3 Health Promotion: Individuals and Communities
- \* HSCI 330-3 Exploratory Strategies in Epidemiology
- \* HSCI 340-3 Social Determinants of Health
- \* **STAT 305-3 Introduction to Biostatistical Methods for Health Sciences**

and one of

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

and one of

- \* HSCI 481-3 Senior Seminar in Social Health Science
- \* HSCI 482-3 Senior Seminar in Infectious Diseases
- \* HSCI 483-3 Senior Seminar in Environmental Health
- \* HSCI 484-3 Senior Seminar in Population Health Research
- \* HSCI 485-3 Senior Seminar in Mental Health and Addictions
- \* HSCI 486-3 Senior Seminar in Global Health

and a minimum of six additional upper division courses related to the major, including at least 12 HSCI units.

## **RATIONALE**

We are replacing STAT 302-3 Analysis of Experimental and Observational Data with STAT 305 - 3 Introduction to Biostatistical Methods for Health Sciences. STAT 305 - 3 was expressly developed to address the learning focus and needs of students majoring in the Health Sciences.

HSCI 327 - 3 Global Health Ethics replaced HSCI 320 - 3 Global Health Ethics and that change has been approved by SCUS and the Senate.



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# MEMORANDUM

**TO:** Senate Committee on Undergraduate Studies

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

**RE:** Change in BSc Program Requirements - Population and Quantitative Health Sciences Concentration

**DATE:** November 22, 2011

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We are asking SCUS to consider approval of the following change in BSc Program Requirements:

**FROM**

**Population and Quantitative Health Sciences Concentration**

**Upper Division Requirements (45 units minimum)**

Students complete all of

- \* HSCI 305-3 The Canadian Health System
- \* HSCI 307-3 Research Methods in Health Sciences
- \* HSCI 324-3 Human Population Genetics and Evolution
- \* HSCI 330-3 Exploratory Strategies in Epidemiology
- \* HSCI 484-3 Senior Seminar in Population Health Research
- \* STAT 302-3 Analysis of Experimental and Observational Data

and one of

- \* HSCI 319W-3 Applied Health Ethics
- \* HSCI 320-3 Global Health Ethics
- \* PHIL 319W-3 Applied Health Ethics

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and at least six of the following courses, which include a minimum of one as indicated by \*:

- \* BISC 441-3 Evolution in Health and Disease
- \* BISC 422-3 Population Genetics
- \* HSCI 304-3 Perspectives on Environmental Health
- \* HSCI 340-3 Social Determinants of Health
- \* HSCI 410-3 Exploratory Data Analysis\*
- \* HSCI 424-4 Strategic Applications of GIS in Health\*
- \* HSCI 431-3 The Global HIV/AIDS Epidemic
- \* HSCI 432-3 Infectious Disease Epidemiology\*
- \* HSCI 478-3 Seminar in Molecular Epidemiology of Infectious Diseases\*
- \* HSCI 481-3 Senior Seminar in Social Health Science
- \* HSCI 483-3 Senior Seminar in Environmental Health
- \* HSCI 485-3 Senior Seminar in Mental Health and Addictions
- \* HSCI 486-3 Senior Seminar in Global Health
- \* MBB 435-3 Genome Biology
- \* MBB 441-3 Bioinformatics
- \* REM 412-3 Environmental Modeling
- \* SA 355-4 Quantitative Methods\*

and a minimum two additional upper division HSCI courses (6 units minimum).

## TO

### **Population and Quantitative Health Sciences Concentration**

#### **Upper Division Requirements (45 units minimum)**

Students complete all of

- \* HSCI 305-3 The Canadian Health System
- \* HSCI 307-3 Research Methods in Health Sciences
- \* HSCI 324-3 Human Population Genetics and Evolution
- \* HSCI 330-3 Exploratory Strategies in Epidemiology
- \* HSCI 484-3 Senior Seminar in Population Health Research

and one of

- \* **STAT 302-3 Analysis of Experimental and Observational Data**
- \* **STAT 305-3 Introduction to Biostatistical Methods for Health Sciences**

and one of

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

and at least six of the following courses, which include a minimum of one as indicated by \*:

- \* BISC 441-3 Evolution in Health and Disease
- \* BISC 422-3 Population Genetics
- \* HSCI 304-3 Perspectives on Environmental Health
- \* HSCI 340-3 Social Determinants of Health
- \* HSCI 410-3 Exploratory Data Analysis\*
- \* HSCI 424-4 Strategic Applications of GIS in Health\*
- \* HSCI 431-3 The Global HIV/AIDS Epidemic
- \* HSCI 432-3 Infectious Disease Epidemiology\*
- \* HSCI 478-3 Seminar in Molecular Epidemiology of Infectious Diseases\*
- \* HSCI 481-3 Senior Seminar in Social Health Science
- \* HSCI 483-3 Senior Seminar in Environmental Health
- \* HSCI 485-3 Senior Seminar in Mental Health and Addictions
- \* HSCI 486-3 Senior Seminar in Global Health
- \* MBB 435-3 Genome Biology
- \* MBB 441-3 Bioinformatics
- \* REM 412-3 Environmental Modeling
- \* SA 355-4 Quantitative Methods\*

and a minimum two additional upper division HSCI courses (6 units minimum).

### **RATIONALE**

We are adding STAT 305 - 3 Introduction to Biostatistical Methods for Health Sciences option for upper division statistics. STAT 305 - 3 was expressly developed to address the learning focus and needs of students majoring in the Health Sciences.

HSCI 327 - 3 Global Health Ethics replaced HSCI 320 - 3 Global Health Ethics and that change has been approved by SCUS and the Senate.



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# MEMORANDUM

**TO:** Senate Committee on Undergraduate Studies

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

**RE:** Change in BSc Program Requirements - Life Sciences Concentration

**DATE:** November 22, 2011

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We are asking SCUS to consider approval of the following change in BSc Program Requirements:

### **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 320-3 Global Health Ethics
- \* PHIL 319W-3 Applied Health Ethics

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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

and one of

- \* **STAT 302-3 Analysis of Experimental and Observational Data**
- \* **STAT 305-3 Introduction to Biostatistical Methods for Health Sciences**

and one of

- \* HSCI 319W-3 Applied Health Ethics
- \* **HSCI 327-3 Global Health Ethics**
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- \* MBB 322-3 Molecular Physiology
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- \* MBB 421-3 Nucleic Acids
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- \* 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

## **RATIONALE**

We are adding STAT 305 - 3 Introduction to Biostatistical Methods for Health Sciences as an option for upper division statistics. STAT 305 - 3 was expressly developed to address the learning focus and needs of students majoring in the Health Sciences.

HSCI 327 - 3 Global Health Ethics replaced HSCI 320 - 3 Global Health Ethics and that change has been approved by SCUS and the Senate.