SFU GRADUATE AND
POSTDOCTORAL STUDIES

MEMORANDUM

ATTENTION	Senate	**DATE**	January 18, 2018
FROM	Jeff Derksen, Chair of Senate Graduate Studies Committee (SGSC)		
RE:	Program Changes		

For information:

Acting under delegated authority at its meeting of January 8, 2018, SGSC approved the following program changes, effective **Fall 2018:**

Faculty of Applied Sciences
1)   Computer Science, MSc

Faculty of Environment
2)   Resource and Environmental Management, MRM

Faculty of Health Sciences
3)   Health Sciences, MPH
4)   Health Sciences, MSc
5)   Health Sciences, PhD

MEMORANDUM

Attention	Dr. Jeff Derksen Dean, Graduate Studies	Date	December 14, 2017
From	Dr. Mirza Faisal Beg Faculty of Applied Science, Graduate Studies Committee	mfbeg@sfu.ca	

Re: Calendar change for courses for the Professional Master's in Computing Science with specialization in Visual Computing

The faculty of Applied Sciences Graduate Studies Committee would like to send the attached course proposals for the Professional Masters in Computing Science with a specialization in Visual Computing for consideration by SGSC. These have been approved by FGSC by electronic vote.

I request you to please place these on the agenda for the next SGSC meeting.

Cc: Dr. Greg Mori, Director, School of Computing Science
        Dr. Glenn Chapman, Director, School of Engineering Science
        Dr. Farid Golnaraghi, Director, School of Mechatronic Systems Engineering

COMPUTING SCIENCE

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http://mial.cs.sfu.ca (lab)

Date: 14 December 2017

Dear Faisal and FAS GPC,

Please kindly accept the attached Course Proposals for the new Professional Master's in Visual Computing Courses. This has been approved by the CMPT GPC and discussed at CMPT school meeting and retreat.

Best regards,

Ghassan Hamarneh, PhD

Associate Director for Graduate Studies at the School of Computing Science

BACKGROUND AND RATIONALE

The province of British Columbia currently has the fastest-growing technology sector in Canada, with annual revenue of $26 billion. About 150,000 are employed in tech companies in BC, making it the fastest-growing tech workforce in Canada. Major companies such as Microsoft, Amazon, Boeing, Disney, Sony, and EA are increasingly attracted to BC. To meet the high demand for well-trained and well-qualified graduate students in the tech sector in BC, Canada, and beyond, the School of Computing Science has created a **Professional Masters Program in Computer Science**. The program current has a Big Data specialization, training highly qualified personnel specializing in computational methods dealing with Big Data.

In recent years, the digital media and **visual computing** sector is gaining prominence in BC. Currently, there are 900 companies in the province in this sector. In particular, there are over 60 visual effects (VFX) and animation studios in Vancouver alone, comprising the world's largest cluster of domestic and foreign-owned studios. This is in part due to a special Interactive Digital Media Tax Credit that has been in place in BC, which provides strong incentives for digital media and visual computing companies to operate in the province.

Most recently in 2017, alternative realities (augmented, virtual, and mixed realities) are reaching a critical mass. Within the past six months, Google, Apple, and Sony have all released major hardware devices and software toolkits (ARKit from Apple, ARCore from Google, and 3D Creator from Sony) that are pushing the boundaries in AR/VR technology. Google Daydream (their AR/VR division) and Apple have been in a "hiring spree" recently, going after qualified personnel with expertise in **computer graphics, computer vision, and human-computer interaction (HCI)**. Vancouver's AR/VR market is estimated to reach $100 billion by 2025, according to Brad Smith, President of Microsoft Corp. SFU has a large and growing number of researchers working on AR/VR and related technologies. There is on-going effort to build an **SFU AR/VR Ecosystem** to position SFU as one of the leading Canadian universities on AR/VR research and innovation. A first meeting of minds will happen in early January of 2018.

All of these trends and developments provide strong motivation for the School of Computing Science to expand their Professional Masters Program in Computer Science to the visual computing domain, hence the proposal for a new **Specialization in Visual Computing**.

We would identify three core areas of research and teaching offering under visual computing: **computer graphics, computer vision, and HCI**. Other areas that are tied to visual computing include medical imaging, visualization, and robotics. Applications domains for visual computing are numerous, including but are not limited to AR/VR, design and manufacturing, education, medicine, geographical information systems, autonomous driving, robotics, computer games, VFX in games and other media and entertainment fronts.

The School of Computing Science has tremendous strength in visual computing. We have at least 12 faculty members who conduct research in the core and related areas. A prominent computer science ranking website (csrankings.org), which ranks universities and individual researchers based on their publication records in the very top venues in computer science, ranks SFU visual computing highly. Specifically, counting top publications in computer graphics and computer vision, SFU ranks #12 in the world. See:

http://csrankings.org/#/index?vision&graph&world

BACKGROUND AND RATIONALE

Furthermore, SFU Computing Science has a strong track record in training highly qualified personnel in visual computing. For example, doctoral graduates in computer graphics, computer vision, HCI, and visualization from SFU are holding faculty positions in Waterloo, Western, Calgary, Victoria, Carleton, Boston University, and University of Florida, etc. All in all, we believe that our School is strongly positioned to offer a high-quality Professional Masters Program under the Visual Computing Specialization.

Finally, we remark that specialty programs in visual computing now exist in top institutions in the US and Europe; these include Stanford, CMU, University College London, TU Darmstadt, Saarland, Stuttgard, and Swansea. If our Visual Computing Specialization is launched in Fall 2018, it will be the first of its kind in Canada. We are well aware of an existing program in the Center for Digital Media: Master of Digital Media (MDM). However, the goals of that program and our proposed program are clearly different. MDM aims the train project manger type of personnel, in the domain of digital media. This is evident from the six "core competencies" MDM aims to develop: teamwork, design process, self-awareness, time management, articulation, and information literacy. In contrast, our new specialization aims to train technical personnel with algorithmic and software development skills in visual computing.

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STUDENT SERVICES
Spring Calendar

Please note:

To view the Fall 2017 Academic Calendar go to http://www.sfu.ca/students/calendar/2017/fall.html

School of Computing Science | Faculty of Applied Sciences
Simon Fraser University Calendar | Spring 2018

Computer Science

MASTER OF SCIENCE

Admission Requirements

To qualify for admission to the Professional Master of Science in Computer Science, a student must satisfy the university admission requirements for a master's program as stated in Section 1.3.3 of the Graduate Admission section of the SFU calendar, and the student must hold a bachelor's degree, or equivalent in computer science or a related field, with a cumulative grade point average (GPA) of 3.00 (on a scale of 0.00 - 4.33) or the equivalent. Alternatively, a minimum GPA of 3.33/4.33 on the last 60 credits of undergraduate courses will also meet the GPA requirements for admission to the program.

The School's Graduate Admissions Committee may offer, at its discretion, M.Sc. admission to exceptional students without an undergraduate degree in computer science or a related field. Minimally we require demonstrated competence in computer science at the third year level equivalent to CMPT 300 (Operating Systems 1), CMPT 307 (Data Structures and Algorithms) and CMPT 354 (Database Systems).

Students who do not have the proper background in computer science may take the three courses listed above in the Summer semester before the Fall cohort begins and then join the program.

Program Requirements

Students will complete a minimum of 30 units of graduate work. These units are divided into three sections: a minimum of 15 units of discipline specific graduate course work; 12 units of specialized lab work involving advanced industry relevant programming; 3 to 6 units of integrated learning via co-op.

Course Work for Big Data Specialization (at least 15 units)

CMPT 726 - Machine Learning (3)

One of

CMPT 705 - Design and Analysis of Algorithms (3)
CMPT 706 - Design and Analysis of Algorithms for Big Data (3) *
CMPT 711 - Bioinformatics Algorithms (3)

At least two of

CMPT 741 - Data Mining (3) *
CMPT 756 - Systems For Big Data (3) *
CMPT 767 - Visualization (3)
CMPT 825 - Natural Language Processing (3)
IAT 814 - Knowledge, Visualization and Communication (3)
STAT 852 - Modern Methods in Applied Statistics (4)

One of

CMNS 815 - Social Construction of Communication Technologies (5)
CMPT 829 - Special Topics in Bioinformatics (3)
CMPT 880 - Special Topics in Computing Science (3)
CMPT 881 - Special Topics in Theoretical Computing Science (3)
CMPT 882 - Special Topics in Artificial Intelligence (3)
CMPT 884 - Special Topics in Database Systems (3)
CMPT 885 - Special Topics in Computer Architecture (3)
CMPT 886 - Special Topics in Operating Systems (3)
CMPT 888 - Special Topics in Computer Graphics, HCI, Vision and Visualization (3)
CMPT 889 - Special Topics in Interdisciplinary Computing (3)
CMPT 894 - Directed Reading (3)

Other courses with permission of the School.

Note that STAT 652 - Statistical Learning (3) can be used in place of STAT 852 with permission of the School.

* Recommended

Lab Work for Big Data Specialization (12 units)

Students will take the following two lab courses worth 6 units each. Only students enrolled in the Professional Master of Science in Computer Science (Big Data) will be permitted to enroll in these courses:

CMPT 732 - Programming for Big Data 1 (6)
CMPT 733 - Programming for Big Data 2 (6)

Co-op (3 or 6 units)

A co-op placement is an integral part of this program. Students will register for one or two co-op terms. With assistance from the co-op coordinator and co-op student advisor for this program, students will be expected to find a suitable industry partner for the co-op placement. The student may instead choose to conduct research in Applied Computer Science at one of the various Computing Science research labs or elsewhere inside the University as a paid research assistant to satisfy the co-op requirement. In extenuating circumstances, a student may appeal to the program director to take an elective course from the list of electives for this program instead of a co-op. Students are required to enroll in at least one of the required courses in the term following the co-op term(s).

Academic Requirements within the Graduate General Regulations

All graduate students must satisfy the academic requirements that are specified in the Graduate General Regulations, as well as the specific requirements for the program in which they are enrolled.

Back To Top

Computer Science

PROFESSIONAL MASTER OF SCIENCE

Description of Program

The Professional Master's program in Computer Science engages students in developing deep knowledge and practical skills in specialized areas of computer science. The program trains computational specialists who can construct models, develop algorithms, and write software using state-of-the-art graduate-level knowledge and techniques. Students take instructional and lab courses, in a cohort, and complete work placement through SFU's co-op program, allowing them to tackle real-world scientific, engineering, and social-economical problems and gain valuable project management experiences while expanding their network of industrial contacts. This full-time Master's program/specializations are suitable for students with a strong aptitude in computer science, or other quantitative fields, such as engineering and mathematics.

Admission Requirements

A student must satisfy the university admission requirements for a Master's program as stated in Section 1.3.3 of the Graduate Admission section of the SFU calendar, and the student must hold a bachelor's degree, or equivalent in computer science or a related field, with a minimum cumulative grade point average (GPA) of 3.00 (on a scale of 0.00 - 4.33) or the equivalent. Alternatively, a minimum GPA of 3.33/4.33 on the last 60 credits of undergraduate courses will also meet the GPA requirements for admission to the program.

The School's Graduate Admissions Committee may offer, at its discretion, admission the Professional Master's program to exceptional students without an undergraduate degree in computer science or a related field. Minimally we require demonstrated competence in computer science at the third year level equivalent to CMPT 300 (Operating Systems 1), CMPT 307 (Data Structures and Algorithms), and CMPT 354 (Database Systems).

Students who do not have the proper background in computer science may take the three courses listed above in the summer semester before the fall cohort begins and then join the program.

Program Requirements

This program consists of core courses, co-op, and a choice of specialization in big data or visual computing for a minimum of 30 units.

Students complete all of
CMPT 726 - Machine Learning (3)

and one of
CMPT 705 - Design and Analysis of Algorithms (3)
CMPT 706 - Design and Analysis of Algorithms for Big Data (3) *
CMPT 757 - Frontiers of Visual Computing (3) **
CMPT 813 - Computational Geometry (3)

and at least two of
CMPT 741 - Data Mining (3) *
CMPT 756 - Systems For Big Data (3) *
CMPT 761 - Image Synthesis (3)
CMPT 764 - Geometric Modelling in Computer Graphics (3) **
CMPT 767 - Visualization (3)

CMPT 820 - Multimedia Systems (3)
CMPT 822 - Computational Vision (3) **
CMPT 825 - Natural Language Processing (3)
STAT 852 - Modern Methods in Applied Statistics (4)
IAT 814 - Knowledge, Visualization and Communication (3)

and one of
CMNS 815 - Social Construction of Communication Technologies (5)
CMPT 829 - Special Topics in Bioinformatics (3)
CMPT 880 - Special Topics in Computing Science (3)
CMPT 881 - Special Topics in Theoretical Computing Science (3)
CMPT 882 - Special Topics in Artificial Intelligence (3)
CMPT 884 - Special Topics in Database Systems (3)
CMPT 885 - Special Topics in Computer Architecture (3)
CMPT 886 - Special Topics in Operating Systems (3)
CMPT 888 - Special Topics in Computer Graphics, HCI, Vision and Visualization (3) **
CMPT 889 - Special Topics in Interdisciplinary Computing (3)
CMPT 894 - Directed Reading (3)

and a minimum of one co-op term
CMPT 626–Graduate Co-op Practicum I (3)

Big Data Specialization
Students complete all of above requirements and both of
CMPT 732 - Programming for Big Data 1 (6)
CMPT 733 - Programming for Big Data 2 (6)

OR

Visual Computing Specialization
Students complete all of the above requirements and both of
CMPT 742 - Practices for Visual Computing 1 (6)
CMPT 743 - Practices for Visual Computing 2 (6)

*Recommended for students in the Big Data specialization
**Recommended for students in the Visual computing Specialization

Co-op

A co-op internship is an integral part of this program. Students will register for one or two co-op terms. The latter option is in place to satisfy requests from our industrial partners. Some industrial partners prefer two co-op terms for better continuity since one term may not offer sufficient time to carry out a large-scale project. With assistance from the co-op coordinator for this program, students will be expected to find a suitable industry partner for the co-op placement. The student may instead choose to conduct research into big data at one of the various research labs in the School of Computing Science as a paid research assistant to satisfy their co-op requirement. In extenuating circumstances, a student may appeal to the program director to take an elective course from the list of electives for this program instead of a co-op term. Students are required to enroll in at least one of the program courses in the term following the co-op term(s).

Program Length

Students are expected to complete the program requirements in four terms.

Academic Requirements within the Graduate General Regulations

All graduate students must satisfy the academic requirements that are specified in the Graduate General Regulations, as well as the specific requirements for the program in which they are enrolled.

SFU FACULTY OF ENVIRONMENT

OFFICE OF THE DEAN

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To:	Dr. Jeff Derksen, Dean of Graduate Studies / Chair of SGSC
From:	Dr. Dongya Yang, Chair, Faculty of Environment Graduate Studies Committee
cc:	Dr. Sean Markey, Chair, REM Graduate Program Committee
Date:	Dec 14, 2017
Re:	A new thesis stream for the MRM program in REM

The Faculty of Environment Graduate Studies Committee has approved the proposal from the School of Resource and Environmental Management (REM) to create a thesis stream to add to the existing MRM program.

I am submitting the document package to the SGSC committee for approval

1. Memo from the Graduate Chair of REM
2. ~~New Graduate Course Proposal Form REM697~~
3. ~~Graduate Course Change Form REM899~~, REM 699
4. Revised Calendar Entry

Should you have any questions or concerns, please feel free to contact.

Dongya Yang, Ph.D., Professor
Associate Dean of Research and Graduate Studies

TO: Dongya Yang, Associate Dean, Faculty of Environment
FROM: Sean Markey, REM Grad Chair
RE: MRM Thesis option
DATE: November 24, 2017

Dear Dongya,

Attached, please find a calendar entry for the proposed MRM (Thesis) stream (recently approved by the REM GSC and REM Exec). The thesis stream is a long-discussed option within the School of Resource and Environmental Management (REM). The department is motivated to introduce the thesis stream option now for a variety reasons, including student interest, faculty interest in having more dedicated research-intensive students, and considerations regarding completion times for our existing MRM program (i.e. that having a dedicated thesis option will create more realistic parameters for the course-based MRM program, specifically related to the scale and scope of the capstone project).

The thesis stream required courses are intended to preserve and ensure the REM identity for our thesis students related to cross-disciplinary foundations in ecosystem functioning, ecological economics, and policy/social dimensions of resource management. The program meets the commonality requirement as stipulated by the University.

Please note that REM 698 – Field Resource Management Workshop, is a three-day intensive field trip at the start of the program for both thesis and course-based students. REM 801 – Principles of Research Methods, is spread out over the first two terms, with a core deliverable of a research design proposal at the end of the second term.

Also attached: 1) the new course form for the MRM thesis; and 2) revised PhD thesis course to match credits (so that the MRM thesis, optically, does not carry more credits).

We would appreciate if you could facilitate review and vote by the FENV GSC in time to meet the SGSC December 14th materials deadline.

Our thanks to Krista Gerlich-Fitzgerald and the team at Grad Studies for their helpful consultations throughout the development process.

Best,
Sean Markey
Graduate Chair
School of Resource and Environmental Management

Please note:

To view the Fall 2017 Academic Calendar go to http://www.sfu.ca/students/calendar/2017/fall.html

School of Resource and Environmental Management
Simon Fraser University Calendar | Spring 2018

Resource and Environmental Management

MASTER OF RESOURCE MANAGEMENT

Students who successfully complete this program will be awarded the degree of master of resource management.

Admission Requirements

Refer to the graduate general regulations for admission requirements. Contact the School of Resource and Environmental Management directly for more information (reminfo@sfu.ca). Those with degree qualifications in fields not directly related but with extensive experience in resource management are encouraged to apply.

Applicants will vary in their preparation for the various disciplines in the school. Therefore, admission to the school might be conditional upon the completion of certain undergraduate courses. Detailed application information can be found on the department's website: http://www.sfu.ca/rem/prospective-students/apply.html.

Application deadline: January 25.

Program Requirements

Students complete an introductory field course [REM 698], six additional required courses, and a major written research project [REM 699]. The research project must be presented and defended at an oral defense. In addition, students are required to complete four graduate elective courses. A minimum of 61 units is required, consisting of 43 required units and 18 elective units. In exceptional cases, if a student provides evidence of advanced education that is equivalent to one of the required courses, a waiver may be granted for that course, thereby reducing the number of required courses by one.

Prerequisite Courses

Students must be familiar with the material covered in an undergraduate course in parametric and nonparametric statistics.

Required Courses

Students complete a total of 43 units, including all of

REM 601 - Social Science of Natural Resources Management (5)

REM 611 - Population and Community Ecology (5)

REM 621 - Ecological Economics (5)

REM 631 - Earth Systems and Global Change in Environmental Management (5)

REM 698 - Field Resource Management Workshop (3)

REM 699 - Research Project (10)

REM 801 - Principles of Research Methods (5)

and one of

REM 642 - Sustainable Community Planning and Regional Development (5)

REM 644 - Public Policy Analysis and Administration (5)

Elective Courses

Students choose four graduate courses (18 units minimum) as electives to support and complement their particular research interests. Students may, in consultation with their senior supervisor, select REM courses and/or other graduate courses.

Academic Requirements within the Graduate General Regulations

All graduate students must satisfy the academic requirements that are specified in the Graduate General Regulations, as well as the specific requirements for the program in which they are enrolled.

Resource and Environmental Management

MASTER OF RESOURCE MANAGEMENT

Description of Program

The master of resource management program is designed for recent graduates from a range of disciplines and for individuals with experience in private organizations or public agencies dealing with natural resources and the environment.

Admission Requirements

Applicants must satisfy the University admission requirements as stated in Graduate General Regulations 1.3 in the SFU Calendar. Contact the School of Resource and Environmental Management directly for more information (reminfo@sfu.ca). Those with degree qualifications in fields not directly related but with extensive experience in resource management are encouraged to apply.

Applicants will vary in their preparation for the various disciplines in the school. Therefore, admission to the school may be conditional upon the completion of certain undergraduate courses. Students must be familiar with the material covered in an undergraduate course in parametric and non-parametric statistics. Detailed application information, including the application deadline, can be found on the department's website: http://www.rem.sfu.ca/prospective-students/apply-to-rem/.

Program Requirements

Program options consist of either 11 required courses and a research project (course-based stream) for a minimum of 57 units, or 7 courses and a thesis (thesis-based stream) for a minimum of 47 units. Both the project and thesis require high quality research. The thesis stream is more research intensive, producing a final thesis document that is larger in scope than a project and that makes a distinct original contribution to knowledge.

Course-based Stream
Students complete the following courses*
REM 601 - Social Science of Natural Resources Management (5)
REM 611 - Population and Community Ecology (5)
REM 621 - Ecological Economics (5)
REM 631 - Earth Systems and Global Change in Environmental Management (5)
REM 698 - Field Resource Management Workshop (3)
REM 801 - Principles of Research Methods (5)

and one of
REM 642 - Sustainable Community Planning and Regional Development (5)
REM 644 - Public Policy Analysis and Administration (5)

and four graduate elective courses (18 units minimum chosen in consultation with the student's senior supervisor)

and a research project
REM 699 - Research Project (6)

Thesis Stream
Students complete one of
REM 611 - Population and Community Ecology (5)
REM 631 - Earth Systems and Global Change in Environmental Management (5)

and one of
REM 642 - Sustainable Community Planning and Regional Development (5)
REM 644 - Public Policy Analysis and Administration (5)
REM 601 - Social Science of Natural Resources Management (5)

and all of the following*
REM 621 - Ecological Economics (5)
REM 801 – Principles of Research Methods (5)
REM 698 - Field Resource Management Workshop (3)

and two graduate elective courses (6 units minimum chosen in consultation with the student's senior supervisor)

and a thesis
REM 697 – MRM Thesis (18)

*In exceptional cases, if a student provides evidence of advanced education that is equivalent to one of the required courses, a waiver may be granted for that course.

Program Length
Students are expected to complete the program in six terms. Note that co-op placement(s) may extend terms to completion.

Other Information
Both the thesis and the research project must be submitted to the library upon completion.

REM's Cooperative Education (Co-op) Program provides opportunities for graduate students to work in governmental or private resource management organizations to gain professional experience. REM students remain in strong demand across several employment sectors, but most placements continue to be within the Federal and Provincial governments. Participation in the Co-op program is optional.

Academic Requirements within the Graduate General Regulations
All graduate students must satisfy the academic requirements that are specified in the Graduate General Regulations, as well as the specific requirements for the program in which they are enrolled.

Education Programs	Blusson Hall 10704	TEL 778.782.3071	tvb@sfu.ca
	8888 University Drive	FAX 778.782.5927	www.fhs.sfu.ca
	Burnaby, BC V5A 1S6		

MEMORANDUM ————————————————————

ATTENTION	Senate Graduate Studies Committee	**DATE**	November 24, 2017
FROM	Timothy Beischlag, Director, Graduate Programs	**PAGES**	1/3
RE:	HSCI Graduate Course Changes		

The attached course changes have been approved by the Faculty of Health Sciences and are forwarded to the Senate Graduate Studies Committee for approval. These curriculum items should be effective Fall 2018. Please include them on the next SGSC agenda.

1. Temporary withdrawal: HSCI 838

2. Reformatted Calendar Entry and Program Change to remove HSCI 838 as a requirement
    Health Sciences, Master of Public Health

3. Reformatted Calendar Entries
    Health Sciences, Master of Science
    Health sciences, Doctor of Philosophy

Timothy Beischlag
Director, Graduate Programs

Please note:

To view the Fall 2017 Academic Calendar go to http://www.sfu.ca/students/calendar/2017/fall.html

Health Sciences
Simon Fraser University Calendar | Spring 2018

Health Sciences

MASTER OF PUBLIC HEALTH

A master of public health (MPH) program, which focuses on population and public health, is offered with practice-based study which integrates core public health knowledge with the attainment of public health practitioner skills.

Admission Requirements

Applicants who are recent graduates will have a baccalaureate degree in a discipline relevant to population and public health including the social and behavioral sciences, life sciences, and/or the quantitative sciences. A 3.3 cumulative grade point average is normally required. Applicants with substantial practitioner experience in health or a related field will be evaluated in part on their academic credentials and career accomplishments.

Applicants may receive conditional admission subject to satisfactory completion of additional specified courses and a statistics university undergraduate course or its equivalent.

Applicants should indicate their preferred MPH concentration, and must demonstrate experience, interest, and commitment to their chosen area of study. Global health concentration applicants should have some international experience.

Factors influencing MPH program admission include the availability of faculty with expertise in the desired area of study, enrolment space, and the applicant's specific preparation.

Meeting program application requirements does not guarantee program admission.

Students are admitted annually in the fall term only. All applicants must meet the application deadline which is normally set for the beginning of February. Only complete applications are considered. To apply on-line and pay the application fee, visit www.sfu.ca/dean-gradstudies/future.html. For information about how to apply, visit the Faculty of Health Sciences' website at www.fhs.sfu.ca/graduate-programs.

Program Requirements

Students complete a minimum of 46 units of course work, which includes a 13 week practicum completed over an academic term, and submission of a master's project. With senior supervisor and graduate program director approval, students may submit a thesis in lieu of a master's project, but all students complete a practicum. Students choosing to write a thesis will complete a minimum of 49 units.

Students who choose to take longer to complete their program should plan a minimum of two courses per term. Note that graduate general regulations govern the permitted time to complete a master's degree.

Core Course Requirements

The following 25 units of core courses will meet the core learning objectives and core competencies developed in consultation with faculty, students, community stakeholders, and potential future employers. These courses are required, no matter which concentration is chosen.

Students complete all of

HSCI 801 - Biostatistics for Population Health Practice I (4)
HSCI 802 - Principles of Epidemiology for Public Health (4)
HSCI 803 - Qualitative and Survey Research Methods (4)
HSCI 845 - Environmental and Occupational Health (3)
HSCI 880 - Practicum (3)
HSCI 897 - MPH Project (3)
HSCI 900 - Core Concepts and Practice for Public Health I (2) *
HSCI 901 - Core Concepts and Practice for Public Health II (2) *

* normally completed in the first year.

Project Option

Students who choose to complete a project (instead of a thesis) will complete the following course.

HSCI 897 - MPH Project (3)

In this course students will develop the final project with their supervisors in the term following practicum completion.

Thesis Option

Students who choose to complete a thesis (instead of a project) will complete the following course.

HSCI 898 - MPH Thesis (6)

Approval of the supervisor and the graduate program director is required, to ensure that Faculty of Health Sciences thesis guidelines are met, including the development and defence of a thesis proposal. Students will continue to enrol in this course until the thesis is completed and successfully defended, as described in Graduate General Regulations 1.9 and 1.10.

Note that thesis students will complete 49 units.

Practicum

All students complete a practicum, which may be undertaken during any term, by completing

HSCI 880 - Practicum (3)

Students will consult with their senior supervisor concerning all courses to be completed before the practicum which will include, at minimum, HSCI 900 and 901, and four couses from the following: 801, 802, 803, 845, 855, 830, 821. Under special circumstances, students may request written permission from the director, public health practice, and the senior supervisor to substitute one of these, or to embark on the practicum prior to completion of these courses.

Students normally complete their practicum during the summer term of their first year, but it may be completed later provided that prerequisites are met. Either way, these options allow ample time to complete core course requirements before undertaking the practicum.

Public Health Practice Seminars

In their first year, students register in

HSCI 900 - Core Concepts and Practice for Public Health I (2)
HSCI 901 - Core Concepts and Practice for Public Health II (2)

Seminars include practicum preparation workshops.

Concentration Requirements

In addition to the requirements stated above, students choose one of the following concentrations.

Environmental and Occupational Health Concentration

The objective of this concentration is to train practitioners for practice, research, and leadership positions in environmental health. Environmental health sciences is a complex, multifaceted field that is dedicated both to protecting communities and workers from environmental factors that adversely impact human health, and to maintaining the ecological balances essential to long-term human health and environmental quality. Environmental health is one of the largest areas of public health comprising a large percentage of public health practitioners.

A number of our faculty have interests in environmental and occupational health.

In addition to the core requirements, students must complete the following courses.

All of

HSCI 847 - Risk Assessment and Communication for Human Health (3)
HSCI 849 - Environmental and Occupational Epidemiology (3)

and one of

HSCI 776 - Seminar in Molecular Basis of Drug Action and Environmental Exposure (3)
HSCI 846 - Environmental Health Exposure Assessment and Analysis (3)

and one of

HSCI 824 - Comparative Health Care Systems (3)
HSCI 827 - Analysis of the Canadian Health Care Delivery System (3)

and one of

HSCI 835 - Social and Behavioural Contexts of Health and Disease (3)
HSCI 855 - Health Promotion in Practice: The Canadian Context (3)

and two electives.

The following two courses are highly recommended electives; however, see link on the FHS website with a longer list of electives that may be chosen in consultation with your senior supervisor.

HSCI 804 - Biostatistics for Population Health Practice II (3)

HSCI 850 - Air Pollution and Human Health (3)

With the approval of the senior supervisor and consent of the Graduate Program Director, a student may substitute electives from this list and one elective drawn from other institutions. See FHS website.

Global Health Concentration

In addition to the core courses listed above, students who choose this concentration will complete all of

HSCI 821 - Introduction to Global Health (3)
HSCI 822 - Global Health Governance (3) or HSCI 870 - Global Health and International Affairs (3)
HSCI 824 - Comparative Health Care Systems (3)
HSCI 830 - Health Promotion in Partnership: Catalyzing Change (3)

and a minimum of one methods or skills course chosen from

HSCI 804 - Biostatistics for Population Health Practice II (3)
HSCI 805 - Intermediate Epidemiologic Methods (3)
HSCI 825 - Advocacy and Communication (3)
HSCI 826 - Program Planning and Evaluation (3)

or a course providing appropriate methods and skills, chosen from HSCI courses, or from another department or faculty, with the permission of the senior supervisor and the graduate program director

and two additional elective courses chosen from HSCI courses or from relevant courses in other faculties and departments, with permission of the senior supervisor and course instructor.

Population Health Concentration

In addition to the core courses listed above, students who choose this concentration will complete all of

HSCI 827 - Analysis of the Canadian Health Care Delivery System (3)
HSCI 835 - Social and Behavioural Contexts of Health and Disease (3)
HSCI 855 - Health Promotion in Practice: The Canadian Context (3)

and a minimum of one methods or skills course chosen from

HSCI 804 - Biostatistics for Population Health Practice II (3)
HSCI 805 - Intermediate Epidemiologic Methods (3)
HSCI 825 - Advocacy and Communication (3)
HSCI 826 - Program Planning and Evaluation (3)

or a course providing appropriate methods or skills, chosen from HSCI courses or from another department or faculty, with permission of the senior supervisor and the graduate program director

and three additional elective courses chosen from HSCI courses or from relevant courses in other faculties and departments, with permission of the senior supervisor and course instructor.

Social Inequities and Health Concentration

The importance of reducing health inequities has emerged as an imperative for health scholars, policymakers and practitioners both within Canada and globally. Increasingly, health inequities are being understood within a conceptual framework that foregrounds the role of structural factors and accounts for intersecting axes of oppression and privilege. Despite a substantial evidence base documenting social inequities in health, there are major gaps in our understanding of the pathways and mechanisms whereby health

inequities are produced. Thus, there is limited information on which to base development of effective prevention and intervention policies that will reduce these inequities.

This concentration's goal is to prepare MPH students for critical and reflexive research and practice that addresses health inequities related to poverty, racism, colonialism, sexism and other forms of structural violence. Upon completion of the concentration, learners will have a commitment and capacity to advance theory, research, and practice that explains why systemic social inequities persist and how best to reduce their effects on population health.

In addition to the core courses listed above, students who choose this concentration will complete all of

HSCI 807 - Researching Health Inequities (3)
HSCI 835 - Social and Behavioural Contexts of Health and Disease (3)
HSCI 838 - Theorizing Social Inequities and Health (3)
HSCI 839 - Strategies for Reducing Health Inequities (3)

and one of

HSCI 824 - Comparative Health Care Systems (3)
HSCI 827 - Analysis of the Canadian Health Care Delivery System (3)

and one of

HSCI 822 - Global Health Governance (3)
HSCI 823 - Health, Gender and Development (3)
HSCI 829 - Health Policy Making in a Global Context (3)

With the approval of their senior supervisor and consent of the graduate program director, a student may substitute one course from this list with an HSCI elective, or from another department or faculty.

and one additional elective chosen from an HSCI course or from relevant courses in other faculties and departments, with permission of the senior supervisor and the director of graduate programs.

NOTE: Students admitted concurrently to a bachelor's degree program and a master's degree program within the Faculty of Health Sciences may apply a maximum of 10 graduate course units, taken while completing the bachelor's degree, towards the requirements of the master's degree. These graduate courses must be passed with a grade of B (3.0) or better in order to be used towards the requirements of the master's degree. For more information go to: http://www.sfu.ca/dean-gradstudies/future/academicprograms/ConcurrentAdmission.html.

Academic Requirements within the Graduate General Regulations

All graduate students must satisfy the academic requirements that are specified in the Graduate General Regulations, as well as the specific requirements for the program in which they are enrolled.

Health Sciences

MASTER OF PUBLIC HEALTH

Description of Program

The Masters of Public Health (MPH) program is a practice-based graduate degree that trains students in a breadth of research and practice intended to improve population health. This program is designed to meet core public health competencies - what the profession considers to be the essential knowledge and skills required for the successful application of public health.

Admission Requirements

Applicants must satisfy the University admission requirements as stated in Graduate General Regulations 1.3 and the requirements on the Faculty of Health Sciences website.

See Graduate General Regulation 1.3.4 iii transfer from master's to PhD, which is possible for exceptional students in the first 6 semesters of their master's.

Program Requirements

This program consists of course work, a minimum 11 week practicum and a project for a total of 46 credit hours, or with the approval of the senior supervisor and the director, students may choose a thesis in lieu of a master's project, for a total of 50 credit hours.

Project Option
Students must complete all of
HSCI 801 - Biostatistics for Population Health Practice I (4)
HSCI 802 - Principles of Epidemiology for Public Health (4)
HSCI 803 - Qualitative and Survey Research Methods (4)
HSCI 845 - Environmental and Occupational Health (3)
HSCI 900 - Core Concepts and Practice for Public Health I (2)
HSCI 901 - Core Concepts and Practice for Public Health II (2)

and requirements from one of the concentrations

and a practicum
HSCI 880 - Practicum (3)

and a project
HSCI 897 - MPH Project (3)

Thesis Option
Students must complete all of
HSCI 801 - Biostatistics for Population Health Practice I (4)
HSCI 802 - Principles of Epidemiology for Public Health (4)
HSCI 803 - Qualitative and Survey Research Methods (4)
HSCI 845 - Environmental and Occupational Health (3)
HSCI 900 - Core Concepts and Practice for Public Health I (2)

HSCI 901 - Core Concepts and Practice for Public Health II (2)

and requirements from one of the concentrations

and a practicum
HSCI 880 - Practicum (3)

and a thesis
HSCI 898 - MPH Thesis (6)

Concentrations

Environmental and Occupational Health Concentration
In addition to the core requirements, students who choose this concentration must complete all of
HSCI 847 - Risk Assessment and Communication for Human Health (3)
HSCI 849 - Environmental and Occupational Epidemiology (3)

and one of
HSCI 776 - Seminar in Molecular Basis of Drug Action and Environmental Exposure (3)
HSCI 846 - Environmental Health Exposure Assessment and Analysis (3)

and one of
HSCI 824 - Comparative Health Care Systems (3)
HSCI 827 - Analysis of the Canadian Health Care Delivery System (3)

and one of
HSCI 835 - Social and Behavioural Contexts of Health and Disease (3)
HSCI 855 - Health Promotion in Practice: The Canadian Context (3)
HSCI 842: Indigenous Health in Canada (3)

and two elective graduate HSCI courses

Global Health Concentration
In addition to the core requirements, students who choose this concentration must complete all of
HSCI 821 - Introduction to Global Health (3)
HSCI 822 - Global Health Governance (3)   HSCI 824 - Comparative Health Care Systems (3)
HSCI 830 - Health Promotion in Partnership: Catalyzing Change (3)

and one of
HSCI 804 - Biostatistics for Population Health Practice II (3)
HSCI 805 - Intermediate Epidemiologic Methods (3)
HSCI 825 - Advocacy and Communication (3)
HSCI 826 - Program Planning and Evaluation (3)

and two of
HSCI 808: Economics of Health and Health Care (3)
HSCI 823: Health, Gender and Development (3)
HSCI 825: Advocacy and Communication (3)
HSCI 826: Program Planning and Evaluation (3)

HSCI 829: Health Policy-making in a Global Context (3)
HSCI 842: Indigenous Health in Canada (3)
HSCI 855: Health Promotion in Practice: The Canadian Context (3)

Population Health Concentration
In addition to the core requirements, students who choose this concentration must complete all of
HSCI 827 - Analysis of the Canadian Health Care Delivery System (3)
HSCI 835 - Social and Behavioural Contexts of Health and Disease (3)
HSCI 855 - Health Promotion in Practice: The Canadian Context (3)

and one of
HSCI 804 - Biostatistics for Population Health Practice II (3)
HSCI 805 - Intermediate Epidemiologic Methods (3)
HSCI 825 - Advocacy and Communication (3)
HSCI 826 - Program Planning and Evaluation (3)

and three elective graduate HSCI courses

Social Inequities and Health Concentration
In addition to the core requirements, students who choose this concentration must complete all of
HSCI 807 - Researching Health Inequities (3)
HSCI 835 - Social and Behavioural Contexts of Health and Disease (3)
HSCI 839 - Strategies for Reducing Health Inequities (3)

and one of
HSCI 824 - Comparative Health Care Systems (3)
HSCI 827 - Analysis of the Canadian Health Care Delivery System (3)

and one of
HSCI 822 - Globalization and Health (3)
HSCI 823 - Health, Gender and Development (3)
HSCI 829 - Health Policy Making in a Global Context (3)
HSCI 842: Indigenous Health in Canada (3)

and one elective graduate HSCI course

Note: SFU students enrolled in the Accelerated Master's within Health Sciences may apply a maximum of 10 graduate course units, taken while completing the bachelor's degree, towards the upper division undergraduate electives of the bachelor's program and the requirements of the master's degree. For more information go to: http://www.sfu.ca/dean-gradstudies/future/academicprograms/AcceleratedMasters.html.

Program Length
Students are expected to complete the program requirements in six terms.

Academic Requirements within the Graduate General Regulations
All graduate students must satisfy the academic requirements that are specified in the Graduate General Regulations, as well as the specific requirements for the program in which they are enrolled.

Please note:

To view the Fall 2017 Academic Calendar go to http://www.sfu.ca/students/calendar/2017/fall.html

Health Sciences | Faculty of Health Sciences
Simon Fraser University Calendar | Spring 2018

Health Sciences

MASTER OF SCIENCE

This master of science (MSc) program prepares graduates for research careers in one of the signature areas that either have been developed or are currently under development within the faculty including: global health; environmental and occupational health, toxicology; maternal and child health; epidemiology and biostatistics; health promotion and disease prevention; infectious diseases; chronic diseases and aging; mental health and substance use; social inequities and health; adolescent and child development; reproductive health; and health policy. The available courses and directed research experiences available will cover health issues from the level of cells, organisms, systems, communities and populations, encompassing and transcending strictly individual or clinical perspectives.

The MSc curriculum is flexible by design. Students, in consultation with faculty advisors, create a curriculum plan that will best help them meet their research and career goals. A disciplinary-specific application of the scientific method shall be common to all MSc curriculum plans.

Formal academic instruction is available in regularly taught courses within the faculty as well as in other Simon Fraser Univerisity faculties and departments, and other universities in Western Canada through the Western Deans' Agreement. In addition, directed studies and directed research courses may be available in specific areas.

Admission Requirements

Applicants to the MSc program who are recent graduates should have completed a baccalaureate degree in a discipline relevant to their area(s) of interest in the health sciences. Such disciplines include the social and behavioral sciences, humanities, life sciences and/or the quantitative sciences.

Applicants must satisfy all University admission requirements as outlined in Simon Fraser University's Calendar under graduate general regulations 1.3.3 . A minimum cumulative grade point average of at least 3.3 on grading scales similar to Simon Fraser University's is required. Applicants must submit evidence, usually references from qualified referees, of their ability to undertake advanced research in their area of interest. Applicants should explain in their applications how their educational, research and/or career experiences have prepared them for their selected areas of study and research in the program.

Applicants from countries where English is not the primary language must provide test scores from TWE, TOEFL, or IELTS examinations taken within two years prior to applying to the MSc program. Minimum scores are indicated in graduate general regulation 1.3.12.

Factors influencing admission to the MSc program include an assessment of whether the student's educational and career interests are complementary to the research strengths of the faculty, enrolment space, and the student's specific preparation.

Before admission can be finalized, a Faculty of Health Sciences faculty member who will serve as a senior supervisory must be identified. Note that while applicants may apply to the program without identifying a senior supervisor, a final decision to admit depends on the commitment by a faculty member to serve in this capacity.

Admission is competitive. Meeting these minimum standards does not guarantee admission to the program.

To apply and pay the application fee online, consult the graduate studies website at http://www.sfu.ca/gradstudents/applicants/index.html. For specific Faculty of Health Sciences information, visit http://www.sfu.ca/fhs/future-students/graduate.html.

Applying from the Faculty of Health Sciences Master of Public Health Program to the Master of Science Program

Students in the Faculty of Health Sciences Master of Public Health (MPH) program may apply to the MSc program. MPH students must submit all required supporting documents to be considered for the MSc program by the advertised deadlines. Meeting program application requirements does not guarantee admission to the program. The FHS graduate studies committee in consultation with the student's supervisor will determine credit for course work completed while in the MPH program.

Program Requirements

The program is a research degree that is designed to incorporate a focus on one or more of the thematic areas of research expertise within the Faculty of Health Sciences, and introduces students to interdisciplinary concepts in health sciences research. The minimum requirements for an MSc degree in FHS are

completion of 12 units of graduate course work

writing and defence of an MSc thesis proposal

writing and defence of an MSc thesis

By the end of their second term in the MSc program, and in consultation with their senior supervisor, students must have formed and met with their supervisory committee, whose composition must be approved by the FHS graduate studies committee in accordance with the Simon Fraser University graduate general regulations. The supervisory committee will normally consist of the senior supervisor and a minimum of two additional faculty members whose expertise will complement the student's research and program goals. The role of the supervisory committee is to oversee student curricular planning and progress in the program and to assess student performance on the thesis proposal, the thesis research, and the thesis defence.

Students are required to submit and present annual progress reports to their supervisory committee. In addition to an evaluation of the student's progress by the supervisory committee, these reports should provide a summary of courses taken and grades achieved, planned course work and research-related activities (e.g. conference attendance), financial support and self-evaluation done by the student of his/her progress.

MSc students must maintain a minimum grade point average of 3.0 during their time in the program.

NOTE: Students admitted concurrently to a bachelor's degree program and a master's degree program within the Faculty of Health Sciences may apply a maximum of 10 graduate course units, taken while completing the bachelor's degree, towards the requirements of the master's degree. These graduate courses must be passed with a grade of B (3.0) or better in order to be used towards the requirements of the master's degree. For more information go to: http://www.sfu.ca/dean-gradstudies/future/academicprograms/ConcurrentAdmission.html.

MSc Course Work

The minimum requirements for all students are 30 units of graduate course work which consists of a minimum of

one core seminar (three units)

three core colloquium courses (each one unit, totalling three units)

two elective courses (equalling a minimum of six units)

a thesis proposal (six units)

a master's thesis (12 units)

CORE COURSES

Students complete all of the following. However, students who are accepted into the Faculty of Health Sciences PhD program are not required to repeat these courses provided these courses were completed with a minimum grade of A- or higher in each.

HSCI 902 - Interdisciplinary Seminar in Health Sciences I (3)
HSCI 903 - Interdisciplinary Seminar in Health Sciences II (3)

ELECTIVE COURSES

Elective course work will be determined by the student in consultation with his/her senior supervisor and the supervisory committee. Elective courses may be from any of the graduate course offerings at Simon Fraser University with the approval of the offering units.

A student may be advised to complete additional course work by his/her senior supervisor in consultation with the supervisory committee commensurate with the research interests of the student and within the scope of the student's curricular focus. Additional courses may be completed at Simon Fraser University or, in select cases, at other universities that participate in the Western Dean's Agreement.

All graduate students are expected to regularly attend the FHS research seminar series (HSCI 900) each fall and spring term.

Transferring to the Faculty of Health Sciences PhD Program

Students in the MSc program may apply to transfer to the PhD program. To do so, they must demonstrate their ability to carry out innovative, independent and original PhD level research in that field, have obtained high academic standing in previous university work, and have the support of their senior supervisor. All university regulations governing transfers must be met (graduate general regulation 1.3.4). Transfers will normally only be considered in the second through fifth terms after enrolment in the MSc program. Transfer applications must be approved by the student's supervisory committee, the FHS graduate studies committee, and the dean of graduate studies. Students transferring from the MSc program will be eligible to earn only the PhD degree. Students will not be eligible to transfer to the PhD program beyond six terms of full-time equivalent course work in the MSc program.

Research

A major part of the MSc program will be devoted to original research as relevant within the context of the health science discipline the student is pursuing. The results of this research work are to be presented in the form of a thesis. The thesis shall be submitted and defended in accordance with graduate general regulations.

Anticipated Completion Time

The anticipated completion time of all program requirements for students enroled in the FHS MSc program is two to three years (six to nine terms) from initial enrolment, depending on the research discipline and progress in the program. In accordance with the graduate general regulations 1.12.2, the maximum allowable time for completion of MSc requirements is four years (12 terms) of full-time equivalent enrolment. In addition, all requirements of the MSc degree must be completed within six calendar years of initial enrolment.

MSc Thesis Requirement

The MSc is a research degree in which the main component is a thesis that addresses a research problem relevant to health sciences. Upon initiating their thesis research, MSc students enrol in HSCI 887 and are continuously enrolled in this course until the thesis is completed and successfully defended in accordance with graduate general regulations 1.9 and 1.10.

Before commencing research leading to the MSc thesis, all students must prepare and successfully defend a thesis proposal. Students must also obtain, as necessary, relevant ethics, biosafety, and animal care and use approvals.

Thesis Proposal

The student will prepare a written research proposal prior to commencing research leading to the MSc thesis. Upon initiating preparation of the proposal, MSc students enrol in HSCI 886. The proposal shall be organized and evaluated in accordance to policies and procedures established by the FHS graduate studies committee. In general, the proposal will integrate a review of the relevant research literature and describe research methodology appropriate to the principal research question(s), expected results and their significance.

MSc students will normally submit their thesis proposal by the end of their first calendar year in the program to their supervisory committee. The student will then orally present and defend the proposal before their committee. The proposal and oral defence will be graded on a pass/fail basis. Failure of the written proposal or oral defense will be considered unsatisfactory progress, and will trigger review by the FHS graduate studies committee as outlined in graduate general regulation 1.8.2.

Thesis Defence

A written thesis is based on the candidate's original contribution to research in the field of his/her expertise, and is the final requirement for completion of the MSc program. The thesis will typically include a background/introduction section, research materials and/or methods, results and analyses, and discussion. Students must note in the thesis that the appropriate ethics, biosafety, and animal care and use approvals were obtained prior to conducting their research work.

All MSc candidates must pass the formal thesis defence which is conducted in accordance with graduate general regulations 1.9.2 and 1.10.1. The candidate will be recommended for the award of an MSc degree in health sciences upon successful defence of the thesis.

Academic Requirements within the Graduate General Regulations

All graduate students must satisfy the academic requirements that are specified in the Graduate General Regulations, as well as the specific requirements for the program in which they are enrolled.

Health Sciences

MASTER OF SCIENCE

Description of Program

This master of science (MSc) in Health Sciences program prepares graduates for research careers in one of the signature areas within the faculty including: global health; environmental and occupational health, and toxicology; maternal and child health; epidemiology and biostatistics; health promotion and disease prevention; infectious diseases; chronic diseases and aging; mental health and substance use; social inequities and health; adolescent and child development; reproductive health; and health policy. The available courses and directed research experiences available will cover health issues from the level of cells, organisms, systems, communities and populations, encompassing and transcending strictly individual or clinical perspectives.

The MSc curriculum is flexible by design. Students, in consultation with faculty advisors, create a curriculum plan that will best help them meet their research and career goals. A disciplinary-specific application of the scientific method shall be common to all MSc curriculum plans.

Admission Requirements

Applicants must satisfy the University admission requirements as stated in Graduate General Regulations 1.3 and the requirements on the Faculty of Health Sciences website.

See Graduate General Regulation 1.3.4 iii transfer from master's to PhD, which is possible for exceptional students in the first 6 semesters of their master's.

Supervision

An FHS faculty member who has agreed to serve as the applicant's senior supervisor must be identified prior to submitting an application for admission. Applicants who do not have a confirmed senior supervisor at the application deadline will not be considered.

Program Requirements

This program consists of course work, a thesis proposal, and a thesis for a minimum of 30 units.

Students must complete all of
HSCI 902 - Interdisciplinary Seminar in Health Sciences I (3)
HSCI 903 - Interdisciplinary Seminar in Health Sciences II (3)

and a minimum of six elective graduate units approved by the Senior Supervisor

and a thesis proposal
HSCI 886 - MSc Thesis Proposal (6)

and a thesis
HSCI 887 - MSc Thesis (12)

Course Work
A student may be advised to complete additional course work by his/her senior supervisor in consultation with the supervisory committee commensurate with the research interests of the student and within the scope of the student's curricular focus.

Note: SFU students enrolled in the Accelerated Master's within Health Sciences may apply a maximum of 10 graduate course units, taken while completing the bachelor's degree, towards the upper division undergraduate electives of the bachelor's program and the requirements of the master's degree. For more information go to: http://www.sfu.ca/dean-gradstudies/future/academicprograms/AcceleratedMasters.html.

Program Length
Students are expected to complete the program requirements in six to nine terms (two to three years) from initial enrolment, depending on the research discipline and progress in the program.

Academic Requirements within the Graduate General Regulations
All graduate students must satisfy the academic requirements that are specified in the Graduate General Regulations, as well as the specific requirements for the program in which they are enrolled.

Please note:

To view the Fall 2017 Academic Calendar go to http://www.sfu.ca/students/calendar/2017/fall.html

Health Sciences
Simon Fraser University Calendar | Spring 2018

Health Sciences

DOCTOR OF PHILOSOPHY

This doctor of philosophy (PhD) program trains students in advanced research in health sciences, and provides them with the skills, content area expertise, and analytical and critical thinking capabilities required to pursue original research relevant to health. Consistent with the mandate and objectives of the Faculty of Health Sciences (FHS) mission, the program will introduce students to interdisciplinary approaches to research that will encourage them to develop cross-disciplinary research skills.

Areas of disciplinary emphasis in the faculty include: social science, epidemiology, biostatistics, policy analysis, ethics and laboratory-based biomedical science. Research areas in the faculty are interdisciplinary and include: global health; environmental health and toxicology; maternal and child health, epidemiology and disease prevention; chronic and infectious diseases; population and public health; mental health and addiction; social inequities and health outcomes; adolescent and child development; reproductive health; and health policy.

Admission Requirements

Applicants will normally have previous training in a discipline relevant to their area(s) of interest in health sciences. Admission will depend on the availability of faculty to supervise the student. FHS requires applicants to identify from the faculty a senior supervisor who will agree to supervise the student, if accepted into the program.

To qualify for admission, applicants must satisfy all University admission requirements as outlined in the graduate general regulations, which include the following.

    a master's degree from a recognized university, or the equivalent, or

    a bachelor's degree with a cumulative grade point average of at least 3.5 (on a 4.33 scale) from a recognized university, or the equivalent, or

    completion of at least 75% of the course work units required for the relevant department's master's program with a cumulative grade point average of at least 3.5. All graduate courses, whether completed at this university or another, shall be considered in the calculation.

In addition to the above, evidence is submitted showing that the applicant is capable of undertaking substantial original research. Normally, such capability will be judged from letters of reference from qualified referees, and the completion of a master's thesis, projects, published papers, or other scholarly work.

In addition, international students from countries where English is not the primary language must provide test scores from the Test of Written English (TWE), the Test of English as a Foreign Language (TOEFL), or International English Language Testing System (IELTS) examinations. Minimum scores are indicated in graduate general regulation 1.3.12.

Admission is competitive. Meeting these minimum standrads does not guarantee admission to the program.

Application

All applicants, except those transferring from a Faculty of Health Sciences master of science program or a master of public health program (for these, see below) must submit the following documents.

  all post-secondary transcripts

  a short curriculum vitae providing evidence of scholarships and awards, academic performance, publications, and relevant research and work experience

  a statement of intent describing how the program fits the applicant's research interests and career objectives. This statement must articulate the student's background and expertise, and will ideally evidence commitment to interdisciplinary scholarship.

  three referees from academics/researchers who have first-hand knowledge of the applilcant's research capabilities and academic training

  applicants whose first language is not English, and whose previous education has been conducted in another language, are required to submit official results of TOEFL and TWE or IELTS examsthat were taken in the last two years

  students who have completed their undergraduate degree at an academic institution outside of North America may wish to supply the results of the graduate record examination (GRE)that was taken within five years of the applilcation date

  Before admission can be finalized, a senior supervisor must be identified, and that individual must complete a supervisory committee form and submit a letter attesting to a willingness to act in this capacity. This letter must also indicate funding commitments, or if funding is not available, a statement explaining how the student will be funded in their program of study, and where relevant, commitments to obtaining that funding. Note that while applicants may apply to the program without identifying a senior supervisor, a final decision to admit depends on the commitment by a faculty member to serve in this capacity.

Student Supervision

By the end of the first term, and in consultation with the senior supervisor, students must have formed and met with their supervisory committee whose composition must be approved by the Faculty of Health Sciences graduate studies committee in accordance with Simon Fraser University policy.

The supervisory committee will comprise the senior supervisor and a minimum of two additional faculty members whose expertise will complement the student's research and program goals. The role of the supervisory committee is to oversee student curricular planning and progress, and to assess student performance on the comprehensive examination, the thesis proposal and defence, the thesis research and the thesis defence.

At least once each year, the supervisory committee will report on the student's progress and plans for the upcoming year, including course work. The annual report will be submitted for approval by the graduate studies committee with a copy to the student. Students are required to demonstrate adequate progress toward the degree as judged by their committee, and meet the minimum standards as described in graduate general regulation 1.5.4.

Transferring to the PhD Program

Master of science (MSc) or master of public health (MPH) students who show exceptional abilities may apply to transfer to the PhD program only if the student can demonstrate their ability to carry out innovative, independent and original PhD level research in that field, has obtained high academic standing in previous university work, and has the support of their master's supervisor. All University regulations governing transfers must be met (see graduate general regulation 1.3.4). Transfers are only permitted when

the student has been in the master's program for two but not more than five terms. Transfer applications must be approved by the student's supervisory committee, the FHS graduate studies committee, and the dean of graduate studies. Students transferring from the master's program will be eligible to earn only the PhD degree. Students will not be eligible to transfer to the PhD program beyond six terms of full-time equivalant course work in the MSc program.

Program Requirements

Students complete all of

HSCI 902 - Interdisciplinary Seminar in Health Sciences I (3)
HSCI 903 - Interdisciplinary Seminar in Health Sciences II (3)

Candidates will normally register in HSCI 902 followed by HSCI 903 during their first year of residence. Students who entered the PhD program from the Faculty of Health Sciences master's programs (MPH, MSc), and who have completed HSCI 902 and 903 need not repeat the courses, provided that they achieve a grade of A- or higher in each.

It is expected that most students will be required to complete additional course work or directed studies which will be determined by the student, together with the supervisory committee. A student's annual progress report includes the course work plans, and must be approved by the Faculty of Health Sciences graduate studies committee on an annual basis.

In addition to the required courses shown above, and as soon as the student commences preparation for the comprehensive exam, the student will register in

HSCI 983 - Comprehensive Exam and Thesis Proposal (6)

Once thesis research commences, the student enrols in

HSCI 990 - Thesis Research (6)

When the student begins writing the thesis, they must register in

HSCI 998 - PhD Thesis Preparation and Defence (6)

Comprehensive Examination

The student must pass a comprehensive examination that consists of an oral defence of a major written paper, the topic of which will be determined by the supervisory comiittee. Details about the conduct of the exam are published in the PhD handbook and are found on the Faculty of Health Sciences website.

The comprehensive examination is normally completed by the end of the fourth term. There are four possible outcomes: pass, pass with minor comment and revision, pass with major revision and a requirement to rewrite and re-defend, and fail.

The comprehensive exam may be retaken only once. If a student fails the comprehensive exam, progress in the program is considered to be unsatisfactory and will trigger a review by the faculty's graduate studies committee as outlined in graduate general regulation 1.8.2, and the student will be required to withdraw from the program.

Doctoral Thesis Proposal

The candidate will prepare a written research proposal that integrates theory, current research, and methods in fields related to the selected research problem.

The proposal will be organized and evaluated in accordance with policies and procedures established by the faculty's graduate studies committee. Briefly, these policies specify that the proposal reviews the relevant research literature; reflects original work; and describes methodology that is appropriate to the principal research question(s).

PhD candidates will normally submit the thesis proposal in their second year. The proposal and oral defence will be graded on the same basis, with the same possible outcomes as the comprehensive exam.

In some cases, and depending on the judgment of the supervisory committee, the comprehensive examination and the thesis proposal presentation and defence may be combined into a single presentation and defence.

Thesis

Doctoral Thesis

A written thesis is based on the candidate's original contribution to research in the field of his/her expertise, and is the final requirement for the PhD program. The topic must be approved by the student's supervisory committee.

The thesis may take two forms: the traditional document which outlines the research undertaken, methods, results, and discussion; and the three-paper option in which the candidate submits three published or publishable papers bookended by introductory and concluding chapters.

Candidates must obtain human subject ethics approvals, relevant animal handling approvals, and/or bio-safety hazards approvals prior to conducting research, and must list approval numbers in the thesis.

Thesis Defence

All candidates must pass a formal thesis defence that is conducted in accordance with graduate general regulation 1.9.4. The candidate will be awarded the PhD degree upon the submission and successful defence of a doctoral thesis that describes the results of independent research.

Committee Composition

Normally the student's supervisory committee will conduct the doctoral comprehensive examination and thesis proposal defence.

In addition, for the doctoral thesis defence, and in consultation with the senior supervisor, the candidate will choose an internal examiner who is a member of faculty at the University, or a person otherwise suitably qualified who is not a member of the candidate's supervisory committee, and an external examiner who shall be specifically qualified in the field of the thesis and is not a member of faculty at the University, in accordance with graduate general regulation 1.9.3.

Residency Requirement

The candidate must be registered and in residence at Simon Fraser University for the minimum number of terms, as described in graduate general regulation 1.7.

The program requires a minimum of three years of full-time study, and the faculty will generally provide funding for only three years. Depending upon the student's prior training in the health sciences, and whether the student completed core courses while in Simon Fraser University's master of public health or master of science program, the length of study will generally vary from three to five years.

Academic Requirements within the Graduate General Regulations

All graduate students must satisfy the academic requirements that are specified in the Graduate General Regulations, as well as the specific requirements for the program in which they are enrolled.

Health Sciences

DOCTOR OF PHILOSOPHY

Description of Program

This doctor of philosophy (PhD) in Health Sciences program trains students in advanced research in health sciences, and provides them with the skills, content area expertise, and analytical and critical thinking capabilities required to pursue original research relevant to health. Consistent with the mandate and objectives of the Faculty of Health Sciences (FHS) mission, the program will introduce students to interdisciplinary approaches to research that will encourage them to develop cross-disciplinary research skills.

Areas of disciplinary emphasis in the faculty include: social science, epidemiology, biostatistics, policy analysis, ethics, and laboratory-based biomedical science. Research areas in the faculty are interdisciplinary and include: global health; environmental health and toxicology; maternal and child health, epidemiology and disease prevention; chronic and infectious diseases; population and public health; mental health and addiction; social inequities and health outcomes; adolescent and child development; reproductive health; and health policy.

Admission Requirements

Applicants must satisfy the University admission requirements as stated in Graduate General Regulations 1.3 and the requirements on the Faculty of Health Sciences website.

See Graduate General Regulation 1.3.4 iii transfer from master's to PhD, which is possible for exceptional students in the first 6 semesters of their master's.

Supervision

An FHS faculty member who has agreed to serve as the applicant's senior supervisor must be identified prior to submitting an application for admission. Applicants who do not have a confirmed senior supervisor at the application deadline will not be considered.

Program Requirements

This program consists of course work, a comprehensive exam and thesis proposal, research, and a thesis for a minimum of 24 units.

Students must complete all of
HSCI 902 - Interdisciplinary Seminar in Health Sciences I (3)
HSCI 903 - Interdisciplinary Seminar in Health Sciences II (3)

and a comprehensive exam and thesis proposal
HSCI 983 - Comprehensive Exam and Thesis Proposal (6)

and thesis research
HSCI 990 - Thesis Research (6)

and a thesis
HSCI 998 - PhD Thesis Preparation and Defence (6)

Course Work
A student may be advised to complete additional course work by his/her senior supervisor in consultation with the supervisory committee commensurate with the research interests of the student and within the scope of the student's curricular focus.

Students who enter the PhD program from FHS MSc, and who receive an A- or higher in 902 or 903 do not need to repeat the courses.

Comprehensive Examination
The comprehensive examination may be retaken only once. If a student fails the comprehensive examination, progress in the program is considered unsatisfactory and will trigger a review by the faculty's graduate studies committee as outlined in Graduate General Regulation 1.8.2.

Doctoral Thesis Proposal
PhD candidates will normally submit the thesis proposal in their second year. The proposal and oral defence will be graded on the same basis, with the same possible outcomes as the comprehensive exam

Program Length
Faculty of Health Sciences PhD candidates are expected to complete in 3-5 years.

Academic Requirements within the Graduate General Regulations
All graduate students must satisfy the academic requirements that are specified in the Graduate General Regulations, as well as the specific requirements for the program in which they are enrolled.