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CRITERION 2.0 – INSTRUCTIONAL PROGRAMS

INTRODUCTION

The Faculty of Health Sciences (FHS) at Simon Fraser University (SFU) defines its unit of accreditation as consisting of the personnel and resources that comprise, deliver, and support the professional MPH degree and its specialty concentrations as well as the academic BA and BSc degrees.

Master's Degree in Public Health

The Master's Degree in Public Health has been designed to prepare graduates for all three Tiers¹ within public health practice by integrating core public health knowledge with the professional skills that public health practitioners require. The degree began in 2005 as an MSc degree with two streams, a research-focused thesis stream, and a practice-focused stream. In 2008, the practice-based degree was renamed the "Master's Degree in Public Health."

There are four options for study within the MPH: 1) an interdisciplinary concentration in Population Health, which permits students to take courses across a breadth of public health disciplines; 2) a concentration in Global Health; 3) a concentration in Environmental and Occupational Health (which began enrolling students in 2010); and 4) a concentration in Social Inequities and Health (which began enrolling students in 2010).

The "MPH – Population Health" concentration (formerly termed a "generalist" option) focuses on health policy and planning for health care delivery, health promotion and disease prevention, and applied methods for assessing population health. The Population Health concentration offers a choice of elective courses, permitting flexibility in themes.

The "MPH – Global Health" concentration is intended to prepare professionals and graduates to become agents of change prepared to mitigate health inequities in a global context. The Global Health concentration adapts and applies the skills and knowledge of population and public health to work across various health infrastructures including resource-challenged contexts.

The "MPH- Environmental and Occupational Health" concentration is intended to train practitioners for practice and research positions dedicated 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.

The "MPH – Social Inequities and Health" concentration is intended 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 inequality. 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.

¹ See: The Council on Linkages Between Academia and Public Health Practice. (Adopted 2010, May 3). *Tier 1, Tier 2 and Tier 3 Core Competencies for Public Health Professionals*. Retrieved from: http://www.phf.org/resourcestools/documents/core_public_health_competencies_iii.pdf

Research-based MSc and PhD degree programs in Health Sciences began enrolling students in 2009/10 and 2012/2013 respectively. These degrees are **NOT** included in our unit of accreditation.

Undergraduate Degrees in Health Sciences

The FHS at SFU offers two undergraduate degrees – Bachelor of Sciences in Health Sciences and Bachelor of Arts in Health Sciences. The two degrees emphasize different disciplines in the health sciences but both include a focus on population and public health. By sharing parts of the curriculum, students from both degrees benefit from their exposure to different sub-disciplines, and thus become trained in a truly interdisciplinary manner.

While graduates of the BA and BSc degree programs will attain a basic level of expertise in population and public health and related topics in the health sciences and will thus be able to compete for a number of entry-level positions in the health system and/or private industry, the degree programs are also intended to prepare students for future research or professional degree training. Neither has been developed as a professional program in public health.

Bachelor of Arts Degree in Health Sciences (BA)

In 2006, the Faculty launched a Bachelor of Arts degree in Health Sciences focused principally on social and policy applications. This BA program has been specifically designed to incorporate multidisciplinary approaches to the study of health, illness, and disease in human communities. The program draws upon the biological, social, behavioral, and policy sciences, and focuses on the determinants of health, health promotion, disease prevention, health care systems, and health policy. Students are provided with a core foundation in public health disciplines and issues in preparation for further study in population and public health areas. Positioned within the FHS and its dedication to public health programming at the Master's level, the BA benefits from an organizational structure and culture that embraces the vision, goals, and values of public health and which specializes in an interdisciplinary conceptualization and approach to understanding of health and disease prevention. In 2013, a joint major (BA) with Philosophy was created.

Bachelor of Science Degree in Health Sciences (BSc)

In 2007, the Faculty launched a Bachelor of Sciences degree concentrated on the life sciences, and on quantitative applications in the health sciences. As with the Bachelor of Arts (BA) in Health Sciences, the Bachelor of Science (BSc) degree in Health Sciences incorporates multidisciplinary approaches to the study of health, illness, and disease in human communities.

The BSc in Health Sciences is unique in its interdisciplinary approach to the biological and social determinants of health and disease. Graduates have laboratory skills comparable to those from basic biomedical science programs, and gain strong interdisciplinary experience in social science settings. They exhibit employable skills such as group problem solving, statistical and computational skills, communication and organizational skills. BSc students are trained within the practical framework of knowledge and concepts in molecular biology, immunology, toxicology, epidemiology, statistics, and public and population health. In 2010, the BSc adopted two streams: life sciences and population and quantitative health sciences.

CRITERION 2.1 MASTER OF PUBLIC HEALTH DEGREE

The program shall offer instructional programs reflecting its stated mission and goals, leading to the Master of Public Health (MPH) or equivalent professional masters degree. The program may offer a generalist MPH degree or an MPH with areas of specialization. The program, depending upon how it defines the unit of accreditation, may offer other degrees, professional and academic, if consistent with its mission and resources.

Instructional Matrix

2.1.a An instructional matrix presenting all of the program's degree programs and areas of specialization, including undergraduate, masters and doctoral degrees, as appropriate. If multiple areas of specialization are available, these should be included. The matrix should distinguish between professional and academic degrees and identify any programs that are offered in distance learning or other formats. Non-degree programs, such as certificates or continuing education, should not be included in the matrix.

	Academic	Professional
Bachelors Degrees		
Bachelor of Arts in Health Sciences	X	
Bachelor of Science in Health Sciences	X	
Bachelor of Arts Joint Major – Health Sciences and Philosophy (since 2013/2014)	X	
Masters Degrees		
Master's Degree in Public Health – Environmental & Occupational Health Concentration		X
Master's Degree in Public Health – Global Health Concentration		X
Master's Degree in Public Health – Population Health Concentration		X
Master's Degree in Public Health – Social Inequities in Health Concentration		X

University Publications

2.1.b The bulletin or other official publication, which describes all curricula offered by the program. If the university does not publish a bulletin or other official publication, the program must provide for each degree and area of specialization identified in the instructional matrix a printed description of the curriculum, including a list of required courses and their course descriptions.

The SFU Calendar is the official University publication describing the Public Health programs offered by the FHS. The Calendar is available from SFU's website <http://www.sfu.ca/students/calendar/2014/fall.html> as an interactive electronic version. This site also contains PDF versions which can be downloaded as well as requests for print copies.

Current graduate program descriptions are provided on the Faculty website: <http://www.fhs.sfu.ca/graduate-programs>. Graduate course outlines can be found at: <http://www.fhs.sfu.ca/graduate-programs/course-outlines>. Undergraduate course outlines are provided at: <http://www.sfu.ca/fhs/current-students/undergraduates.html> Health Sciences course descriptions can also be found on the University's Registrar's website at <http://www.sfu.ca/students/calendar/2014/fall/courses/hsci.html>. All course syllabi are provided in the Resource

file. See 2.1.b.i for graduate course outlines. See 2.1.b.ii for undergraduate course outlines.

Criterion Assessment

2.1.c Assessment of the extent to which this criterion is met.

Strengths

- The FHS offers a Master's Degree in Public Health with four specializations: population health, environmental and occupational health, global health, and social inequities and health. In addition, two baccalaureate level academic degrees are offered: Bachelor of Arts in Health Sciences and Bachelor of Science in Health Sciences. The former offers a joint major with the Department of Philosophy. The latter degree program offers two streams: Life Sciences and Population and Quantitative Health Sciences. The curriculum is described in the official Calendar of SFU and is publicly available. Further, detailed level course descriptions and course content outlines are available publicly through the FHS website.

Weaknesses

- Our recruitment target for the MPH over the last three intakes has been set at 40-45 students, down from approximately 50-55 students before that. This new level has allowed us to better achieve appropriate supervisory loads for our Faculty and small enough class sizes for more interactive learning approaches. Our goal has been to recruit balanced numbers of students across our four MPH concentrations, allowing for build up to this situation for our two new concentrations, Environmental and Occupational Health (EOH) and Social Inequities in Health (SIH). The Global Health and Population Health concentrations continue to remain very popular and we regularly turn away high quality students that wish to join these concentrations. The SIH concentration took two years to consolidate and has now stabilized at approximately 10 students each year. Our EOH concentration, however, has not yet managed to reach a steady state, with less than five students entering this program each year.

Plans

- An enhanced recruitment strategy is being implemented to improve intake into the EOH concentration for the next cohort of MPH students. Our plans are to review the impact of these strategies after our next admission cycle to decide if we will continue with a separate EOH concentration or, instead, focus on a cross-cutting approach to build EOH content and approaches into the three remaining concentrations. Recruitment of MSc and PhD students with EOH interests has been successful to date but we will continue to build upon these strengths.
- We are also reviewing additional focus areas for stronger scaffolding across the curriculum to allow students within concentrations to achieve more specialized training. Our first attempt will be to develop a Health Promotion focus, by establishing clear linkages and learning goals across key courses, the practicum and capstone. These include two Health Promotion courses; an Advocacy, Communication and Knowledge Translation course; and the Program Planning and Evaluation course.

This Criterion is met.

CRITERION 2.2 – PROGRAM LENGTH

An MPH degree program or equivalent professional masters degree must be at least 42 semester credit units in length.

Credit Definition

2.2.a Definition of a credit with regard to classroom/contact hours.

Within the FHS at SFU, one credit hour = 13 classroom contact hours. Our current curriculum asks students to complete 46 credit hours; 49 credit hours if a student prepares a thesis. All students complete the 13-week (full-time) practicum and receive 3 academic credits for their work plus an additional 3 “academic progress units” of credit. Thus, students completing a capstone project receive 49 credits while students completing a thesis receive 52 credits. Using the metric typically applied in the U.S., where 1 unit = 15 contact hours, the Public Health programs each still exceed the 42 credit hour minimum (49 SFU units = 42.5 U.S. units) required by the CEPH.

Degree Requirements

2.2.b Information about the minimum degree requirements for all professional degree curricula shown in the instructional matrix. If the program or university uses a unit of academic credit or an academic term different than the standard semester or quarter, this should be explained and an equivalency presented in a table or narrative.

SFU has a trimester system of instruction. As a consequence, the calendar year is divided into three academic terms of 16 weeks each (13 weeks each of faculty-student contact). Academic courses each run for one semester. Further, to increase the accessibility of the summer program (May-August) to teachers and others, the summer term is enriched by two, two-month sessions called intersession (May-June) and summer session (July-August). These programs are offered in addition to a regular four month summer term. The FHS Public Health programs are able to utilize this combination of terms to maximize effective participation by, and engagement of, practicing health professionals and community practitioners in the programming of the Faculty.

Following is a specific description of the degree requirements for each of the Public Health program Degrees captured under our unit of accreditation.

Master’s Degree in Public Health

Core Course Requirements for all Concentrations (22 credits):

All of:

- HSCI 801-4: Biostatistics for Public Health Practice I
- HSCI 802-4: Principles of Epidemiology for Public Health
- HSCI 803-3: Qualitative and Survey Research Methods
- HSCI 845-3: Environmental and Occupational Health
- HSCI 880-3: Practicum
- HSCI 897-3: Master’s Project
- HSCI 900-2: Core Concepts and Practice for Public Health I
- HSCI 901-2: Core Concepts and Practice for Public Health II

The Master's Project (HSCI 897)

Normally, in the term following completion of the practicum, students will enroll in HSCI 897: Master's Project. Students work with their senior supervisors (and occasionally an additional faculty member) to develop the final culminating project, which is reviewed by an external reader and defended before a supervisory faculty committee.

The Thesis Option (HSCI 898)

Instead of a master's project, students may elect to complete a Master's thesis in addition to the practicum. Students electing this option enroll in HSCI 898 Master's Thesis, and continue to enroll in this course until the thesis is completed and successfully defended after review by an external examiner. MPH thesis students are required to extend their enrollment in the MPH program to at least seven semesters in total to allow successful completion the Master's Thesis.

The Practicum (HSCI 880)

The MPH curriculum has been designed to permit students to complete their practicum during the summer term (June to August) of their first year though it may be completed later in the student's program provided that course prerequisites are met. Before beginning their practicum placements, students are required to complete HSCI 900 and 901 as practicum preparation courses. In addition, students are recommended to complete HSCI 801, 802, and 803. For the 2013 cohort, we have relaxed the requirement to complete HSCI 801 and 802 before the practicum to allow students who wish to focus on a health promotion-oriented practice exposure to take two health promotion courses (HSCI 830 and 855), a course on Program Planning and Evaluation (HSCI 826), and one on Advocacy and Communication (HSCI 825) prior to embarking on the practicum. .

MPH Concentration in Environmental and Occupational Health Requirements:

In addition to the core courses (above) students must complete the following.

All of:

- HSCI 815-3 Concepts of Population and Public Health Practice
- HSCI 847-3 Risk Assessment and Communication for Human Health
- HSCI 849-3 Environmental and Occupational Epidemiology

and one of

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

and one of

- HSCI 830-3 Health Promotion in Partnership: Catalyzing Change
- HSCI 835-3 Social and Behavioral Contexts of Health and Disease

and one of

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

and two electives.

The following three 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 the senior supervisor.

- HSCI 804-3 Biostatistics for Population Health Practice II
- HSCI 850-3 Air Pollution and Human Health
- HSCI 855-3 Health Promotion in Practice: The Canadian Context

MPH Concentration in Global Health Requirements:

In addition to the core courses described above, students must complete the following:

All of:

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

and a minimum of one methods or skills course chosen from

- HSCI 804-3 Biostatistics for Population Health Practice II
- HSCI 805-3 Intermediate Epidemiologic Methods
- HSCI 806-3 Principles of Demographic Analysis
- HSCI 825-3 Advocacy and Communication
- HSCI 826-3 Program Planning and Evaluation

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 three additional courses selected from

- HSCI 822-3 Globalization and Health
- HSCI 823-3 Health, Gender and Development
- HSCI 825-3 Advocacy and Communication
- HSCI 826-3 Program Planning and Evaluation
- HSCI 828-3 Health, Human Security, Social Justice
- HSCI 829-3 Health Policy-making in a Global Context
- HSCI 855-3 Health Promotion in Practice: The Canadian Context

or, with the approval of the senior supervisor, a student may substitute two courses from this list with electives drawn from the list of HSCI graduate courses, or from other departments and faculties.

MPH Concentration in Population Health Requirements:

In addition to the core courses above, students in this concentration must complete the following courses:

All of

- HSCI 815-3 Concepts of Population and Public Health Practice
- HSCI 827-3 Analysis of the Canadian Health Care Delivery System
- HSCI 835-3 Social and Behavioural Contexts of Health and Disease
- HSCI 855-3 Health Promotion in Practice: The Canadian Context

A minimum of one methods or skills course chosen from the following list:

- HSCI 804-3: Biostatistics for Public Health Practice II
- HSCI 805-3: Intermediate Epidemiological Methods
- HSCI 806-3: Principles of Demographic Analysis for Health Researchers
- HSCI 825-3: Advocacy and Communication
- HSCI 826-3: Program Planning and Evaluation
- or a course providing appropriate methods/skills, chosen from HSCI offerings, or from another Department or Faculty, with the permission of the senior supervisor and the Graduate Program Director

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

MPH Concentration in Social Inequities and Health

In addition to the core courses described above, students must complete the following:

All of:

- HSCI 807-3 Researching Health Inequities
- HSCI 815-3 Concepts of Population and Public Health Practice
- HSCI 835-3 Social and Behavioral Contexts of Health and Disease
- HSCI 838-3 Theorizing Social Inequities and Health
- HSCI 839-3 Strategies for Reducing Health Inequities

and one of

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

and one of

- HSCI 822-3 Globalization and Health Inequities
- HSCI 823-3 Health, Gender and Development
- HSCI 829-3 Health Policy Making in a Global Context

With the approval of their senior supervisor and the MPH Program Chair, students can choose to substitute one course from this list with an HSCI elective, or a course offered by another department or faculty, and one additional elective course from HSCI course offerings or from relevant course offerings in other faculties and departments with permission of the senior supervisor and Graduate Program Director. This includes taking courses through the Western Canadian Deans' Agreement (WDA) that allows students to take courses at each other's institutions for credit towards their degrees. SFU, FHS allows MPH students to take a maximum of three WDA courses during their program of study. This excludes students taking core courses through this arrangement.

Degrees Awarded (less than 42 semester credit hours)

2.2.c Information about the number of MPH degrees awarded for less than 42 semester credit units, or equivalent, over each of the last three years. A summary of the reasons should be included.

No students enrolled in a Public Health programs at SFU are awarded degrees by the FHS with less than 42 semester credit units or their equivalent. Students enrolled in the Master's Degree in Public Health receive 46 credit units for a practicum based degree and 49 credit units for a thesis based degree.

Criterion Assessment

2.2.d Assessment of the extent to which this criterion is met.

Summary

- The FHS and SFU have clearly defined credit requirements that exceed the minimum credit hours required by the CEPH.
- There are clearly defined and publicly articulated minimum degree requirements identifying all course expectations for each of the Public Health programs.
- No MPH degrees have been awarded for less than 42 semester credit units.

This Criterion is met.

CRITERION 2.3 PUBLIC HEALTH CORE KNOWLEDGE

All professional degree students must demonstrate an understanding of the public health core knowledge.

Core Knowledge Assurance

2.3.a Identification of the means by which the program assures that all professional degree students have a broad understanding of the areas of knowledge basic to public health. If this means is common across the program, it need be described only once. If it varies by degree or specialty area, each must provide sufficient information to assess compliance.

Master's Degree in Public Health (all concentrations)

The FHS ensures that all students have a broad understanding of the core areas of knowledge basic to public health. Core public health knowledge is provided through core courses and reinforced throughout the curriculum with enhanced focus on particular disciplinary areas achieved through specialized courses. Competencies associated with the core areas of public health knowledge are identified in each course syllabus as primary or reinforcing, and learning objectives are mapped to these competencies.

Table 2.3.1 below shows the primary and reinforcing core course assignments for each of the five core areas of public health knowledge for the Master's Degree in Public Health within FHS at SFU.

Core Knowledge Area	Course Number & Title	Credits
Biostatistics	HSCI 801: Biostatistics I (P), HSCI 892: Principles of Epidemiology for Public Health (R), HSCI 803: Qualitative and Survey Research Methods (R)	4 credits per course
Epidemiology	HSCI 892: Principles of Epidemiology for Public Health (P), HSCI 801: Biostatistics I (R), Qualitative and Survey Research Methods (R)	4 credits per course
Environmental Health Sciences	HSCI 845: Environmental & Occupational Health	3
Social & Behavioral Sciences	HSCI 855: Health Promotion in Context: The Canadian Context (P), HSCI 835: Social and Behavioral Contexts of Health and Disease (P)	3 credits per course
Health Services Administration	HSCI 827: Analysis Canadian Health Care System (P)	3

Core Knowledge Area	Course Number & Title	Credits
Biostatistics	HSCI 801: Biostatistics I (P), HSCI 892: Principles of Epidemiology for Public Health (R), HSCI 803: Qualitative and Survey Research Methods (R)	4 credits per course
Epidemiology	HSCI 892: Principles of Epidemiology for Public Health (P), HSCI 801: Biostatistics I (R), Qualitative and Survey Research Methods (R)	4 credits per course
Environmental Health Sciences	HSCI 845: Environmental & Occupational Health (R)	3
Social & Behavioral Sciences	HSCI 830: Health Promotion in Partnership: Catalyzing Change (P), HSCI 835: Social and Behavioral Contexts of Health and Disease (P)	3 credits per course

Health Services Administration	HSCI 824: Comparative Health Systems (R)	3
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Table 2.3.1 Required Courses Addressing Public Health Core Knowledge Areas for MPH (Social Inequities in Health Concentration) Degree

Core Knowledge Area	Course Number & Title	Credits
Biostatistics	HSCI 801: Biostatistics I (P), HSCI 892: Principles of Epidemiology for Public Health (R), HSCI 803: Qualitative and Survey Research Methods (R)	4 credits per course
Epidemiology	HSCI 892: Principles of Epidemiology for Public Health (P), HSCI 801: Biostatistics I (R), Qualitative and Survey Research Methods (R)	4 credits per course
Environmental Health Sciences	HSCI 845: Environmental & Occupational Health	3
Social & Behavioral Sciences	HSCI 835: Social and Behavioral Contexts of Health and Disease (P), HSCI 838: Theorizing Social Inequities in Health (P)	3 credits per course
Health Services Administration	HSCI 824: Comparative Health Systems (P) OR HSCI 827: Analysis Canadian Health Care System (P)	3

Table 2.3.1 Required Courses Addressing Public Health Core Knowledge Areas for MPH (Environmental Health Concentration) Degree

Core Knowledge Area	Course Number & Title	Credits
Biostatistics	HSCI 801: Biostatistics I (P), HSCI 892: Principles of Epidemiology for Public Health (R), HSCI 803: Qualitative and Survey Research Methods (R)	4 credits per course
Epidemiology	HSCI 892: Principles of Epidemiology for Public Health (P), HSCI 801: Biostatistics I (R), Qualitative and Survey Research Methods (R), HSCI 849: Environmental and Occupational Health Epidemiology (P)	4 credits per course
Environmental Health Sciences	HSCI 845: Environmental & Occupational Health (P), HSCI 847: Risk Assessment and Communication for Human Health (P)	3
Social & Behavioral Sciences	HSCI 855: Health Promotion in Practice: The Canadian Context, (P) OR HSCI 835: Social and Behavioral Contexts of Health and Disease (P)	3 credits per course
Health Services Administration	HSCI 824: Comparative Health Systems (P) OR HSCI 827: Analysis Canadian Health Care System (P)	3

Assessment of student achievement of public health core knowledge (all levels)

Assessment of knowledge and skill-based public health competencies is described in detail under Criterion 2.6. The Faculty ensures that all students have a broad understanding of the core public health knowledge areas through policies that support a high level of academic achievement. University policy requires an overall minimum cumulative GPA of 3.0 for each semester for graduate students to remain in good academic standing.

Criterion Assessment

2.3.b Assessment of the extent to which this criterion is met.

Strengths

- SFU's FHS has clearly demonstrable correspondence between its public health programs curriculum and the five core foundations of public health knowledge.
- All degree students are equipped with a broad understanding of knowledge basic to public health through the course content of a series of primary and reinforcing courses.

Weaknesses

- Public health within the five core foundations of practice continues to evolve. While our students achieve entry level competencies in these areas, we anticipate the need for higher levels of competencies as these core areas become more specialized.

Plans

- Focus areas, in addition to the established concentrations, are currently being explored to support students with specialized areas of interest within concentrations. As mentioned above, we are exploring approaches to highlight exposure to Health Promotion in our program. We have also initiated discussions to introduce a special focus on Epidemiology and Biostatistics.

This Criterion is met.

CRITERION 2.4 – PRACTICAL SKILLS

All graduate professional public health degree students must develop skills in basic public health concepts and demonstrate the application of these concepts through a practice experience that is relevant to the students' area of specialization.

Policies and Procedures for Practice Placements

2.4.a Description of the program's policies and procedures regarding practice placements, including selection of sites, methods for approving preceptors, approaches for faculty supervision of students, means of evaluating practice placement sites, preceptor qualifications and criteria for waiving the experience.

Practicum Overview

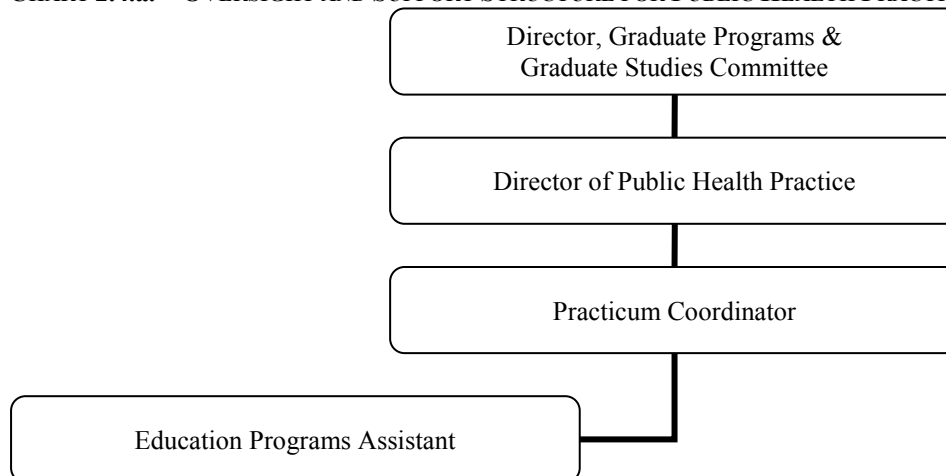
All students enrolled in a Master's Degree of Public Health within the FHS at SFU must undertake a Practicum as part of their graduate training.

The 13-week Practicum is designed as a unique opportunity for graduate students to learn how to apply public health concepts, methods, and theory in public health settings in Canada and globally. Designed to bridge theory and practice in a variety of public and community health settings, the Practicum is a planned, supervised and evaluated applied research or practice experience in which students are mentored and supported by qualified public health supervisors and faculty. The experience is designed to assist students in acquiring skills as a team player, problem solver, and effective communicator. Students will also have opportunities to apply the research process, to analyze qualitative and/or quantitative health data, and to deepen their knowledge in a particular area of interest or expertise.

Normally, students within an area concentration must complete a practicum that is relevant to that concentration. For example, Master's Degree in Public Health graduate students concentrated in Global Health preferably complete an international practicum, or undertake a practicum in a setting relevant to global health (e.g., an intergovernmental or bilateral organization, international NGO, etc.). Table 2.4.b (in the next section) lists practicum placements undertaken by students for the last two academic years.

Chart 2.4.a below outlines the oversight and support structure for the Practicum within the FHS.

CHART 2.4.a. – OVERSIGHT AND SUPPORT STRUCTURE FOR PUBLIC HEALTH PRACTICUM



Description of Policies and Procedures

The FHS, Master's Degree in Public Health programs, has created a comprehensive practicum guide that outlines the policies, procedures, requirements, logistics, responsibilities, required deliverables, and grading and assessment structures for the Practicum experience. A copy of this Guide is provided as Appendix 2.4.a.

Guiding Principles for Practicum

Seven overarching principles have been established to guide each Practicum experience. All seven principles must be exhibited in order for a student to receive credit for the Practicum as part of the requirements for fulfilling an MPH degree at SFU. The principles are that the practicum experience must:

- **Be Applied:** Students must have opportunities to apply and use knowledge and skills acquired through coursework and to gain experience pertinent to their interest in public health.
- **Be Competency-Based:** Students must have opportunities to strengthen their skills and deepen their expertise through active participation and other professional in an appropriate practice setting. Students identify the core competencies that they wish to achieve through their practicum experience.
- **Include Flexible and Appropriate Learning:** Practicum placements may include non-profit, public sector, government, and other organizations that are local, regional, national, or international in scope. Ideally, the organization should support the students' career plans in public health.
- **Allow Collaborative Learning:** Learning must be collaborative between agencies, the program, and students. Opportunities for knowledge exchange are encouraged.
- **Be Scholarly and Exhibit Professional Integrity:** All products of the practicum must demonstrate scholarly and professional integrity, including meeting requirements for ethics clearance from SFU and participating organizations.
- **Provide Useful/Job Preparation:** Students explore areas that coincide with academic goals while gaining the required competencies and proficiencies necessary for a career in public health.
- **Be Mutually Beneficial:** The work undertaken by the student will be useful to the host agency and will enhance the student's overall learning of public health knowledge.

Learning Outcomes for Practicum Experience

The Practicum experience for graduate students in the Master's Degree in Public Health within the FHS at SFU is intimately tied to the overall goals for acquisition of public health knowledge and the codified structure of knowledge competencies established for each public health concentration.

In general terms, students who fully prepare for, engage in, and complete the practicum experience will advance their professional development in one or more of the following ways:

- (1) Apply relevant theories, concepts, and skills learned through academic coursework in a practice setting relevant to their interests in public health;
- (2) Develop confidence in applying specific skills and relevant theory pertinent to their areas of interest, expertise and practice;
- (3) Conduct a systematic examination or inquiry of a public health issue/problem or an administrative, organizational, or professional practice concern;
- (4) Enhance research and/or program-related skills (e.g. program intervention, design, planning, evaluation) that can be applied in the future;
- (5) Develop an appreciation for public health practice while working in a professional environment;
- (6) Improve planning, organizational, and communication skills; and/or,
- (7) Demonstrate collaborative skills while working with colleagues in a professional practice setting.

Development of learning objectives and outcomes for each individual Practicum begins in the preparatory phase of the Practicum through the mandatory courses HSCI 900/901 "Core Concepts and Practice for Public Health I and II" and through the completion of pre-requisite courses. In addition to these formal preparatory courses, students are also required to complete a self-assessment of core competencies for public health professionals to help them

identify learning opportunities and knowledge strengths and deficiencies. This self-assessment enables students to develop a practicum strategy that is suited to their competencies, learning goals, and career aspirations. Students must then develop a Practicum Plan that specifically identifies core public health knowledge competencies linking goals, objectives, strategies and tasks to the proposed Practicum project and defines learning goals for the practicum.

Selection of Practicum Sites

Selection of a practicum site is a customized process for each student that brings together the student's learning goals and career aspirations together with the needs and opportunities of the public health sector locally, nationally or internationally. The Practicum Coordinator in the FHS keeps a list of potential practicum sites built through the partnerships, relationships, and understanding of the public health sector. The Practicum Coordinator actively works with the Director, Public Health Practice to identify potential new sites, evaluate the viability of a site as a future practicum placement opportunity, and establish formal agreements, as required, with practice site partners. Additionally, the Practicum Coordinator serves as a link and bridge between students, faculty members and practicum organizations, working to help develop a good fit between students and their faculty-preceptor matches.

Ultimately, however, the student must take responsibility in seeking out the best practicum site for their learning goals and career aspirations. While the Faculty of Health Science practicum list may serve as a starting point (and in fact may offer a site well-suited to a particular student), the student may identify other potential practicum sites through their own research, personal contacts, or the knowledge of potential new opportunities from faculty members and/or colleagues. Final selection of a practicum site occurs through a multi-tiered vetting of a developed Practicum Plan by the student's Senior Supervisor for the practicum, the potential Preceptor, the Practicum Coordinator, and the Director, Public Health Practice. The Graduate Program Director also reviews the practicum plans for any implications related to ethical research with human subjects. Only once all of these parties agree that the proposed Practicum will meet the core competency learning objectives set for practicum placements by the Public Health program in the FHS and be seen as substantially enhancing the student's public health knowledge and skills, will a practicum site be approved.

Preceptor Qualifications and Methods for Approving Preceptors

Preceptors are initially identified by the student in consultation with their Senior Supervisor and the practicum site organization. It must be demonstrated as part of the practicum plan submitted by the student to the Director, Public Health Practice, that the proposed preceptor has the necessary training, experience, capacity and willingness to provide supervision and mentorship to the student during the entire practicum experience. Furthermore, the practicum site must be equipped to provide the student with a coherent, organizationally efficient and productive learning environment. A full list of expectations and responsibilities for preceptors is provided on page 12 of the Practicum Guide 2014/15 (provided as Appendix 2.4.a). The Director, Public Health Practice examines the qualifications of the preceptor against this list of expectations at the time of practicum approval consideration.

Approaches for Faculty Supervision of Students

A Senior Supervisor has direct and primary responsibility for overseeing the academic aspects of the student's practicum project, and works with the Practicum Coordinator and Director of Public Health Practice to ensure that supervision and workplace experience meet the learning goals and academic requirements of the practicum. The goal is to ensure that the practicum reflects both professional and academic integrity, and is within the student's competence level to ensure that both the student and the host organization mutually benefit from the practicum experience.

The Senior Supervisor identifies, as appropriate, supplementary readings or projects to enhance the learning success of the practicum experience. Mentorship is extended through regular discussions and email exchanges with the student and in the thoughtful response to bi-weekly reports that the student contributes to the online Canvas course container. These are described below. Post-practice placement, the Senior Supervisor works with the student and preceptor to define the objectives and content of the student's practicum poster presentation. The Senior Supervisor, in consultation with the preceptor, also assigns a final grade (Satisfactory/Unsatisfactory) to the student for the practicum.

Assessment of Students

There is a comprehensive, multi-faceted, evaluation framework for the Practicum experience of students enrolled in the Master's Degree in Public Health. The following elements comprise the practicum evaluation framework:

- (1) Academic performance in HSCI 900/901, "Core Concepts and Practice for Public Health I and II";
- (2) Quality of practicum plan (requires meeting standards of, and must be approved by Senior Supervisor, Preceptor, and Director, Public Health Practice);
- (3) Bi-monthly progress reports on topics related to public health practice and an assessment of progress towards knowledge competency attainment, and realization of practicum goals and objectives;
- (4) Midway evaluation (preceptor evaluation);
- (5) Final practicum experience evaluation (preceptor and Senior Supervisor evaluation);
- (6) A poster presentation (see 'Resource not listed in Chapters' folder called Samples of Students Work) about the practicum experience highlighting practicum goals and objective and learning outcomes, as well as a capstone statement linking the significance of the practice experience to the culminating experience and,
- (7) Final grade by Senior Supervisor, in consultation with the preceptor.

Bi-monthly Reports and Journals

While students are on practicum they are required to complete a series of bi-monthly reports on topics related to public health practice (samples are provided in Appendix 2.4.a.ii). Students are encouraged to use journal writing and reflective practice to monitor their learning experience and to draw on these reflections for the bi-monthly reports. Samples of completed bi-monthly reports by students while on practicum are available in 'Resource not listed in Chapters' folder called Samples of Students Work.

To ensure consistency in summative student evaluation, the Master's Degree in Public Health programs have developed standardized evaluation forms for completion by the preceptor and the Senior Supervisor. Appendix 2.4.a.iii provides a copy of the student evaluation forms. Samples of completed evaluation forms are in Resource file 2.4.

We are currently exploring additional ways to assess student attainment of competencies during the practicum. We recently met with local preceptors from the 2014 practicum semester to discuss adding an assessment of student-specific competencies as part of the evaluation process. The preceptors recognized this as an important measure and were fully in support of including this assessment as part of their evaluation. These evaluations have been revised to include assessment of student progress to meet program competencies. This will be piloted for the current MPH student cohort embarking on practicums in the Summer 2015 semester. A copy of the revised preceptor evaluation form is included in Appendix 2.4.a.iv.

Practicum Debrief

Every year, students returning from practicum participate in a practicum debrief meeting with the Director of Public Health Practice and Practicum Coordinator to share their learning experiences and their assessment of the practicum site as a learning opportunity. This information is used to help guide future selection of sites and preceptors. In 2014, students were asked to complete a survey (see 'Resource not listed in Chapters' folder called Program Evaluation Surveys) to gather information about their practicum experience. Results from the 2014 practicum debrief survey (see Appendix 2.4.v) indicate that 90% of respondents said they would recommend their site to future students, 90% said they received adequate mentorship from the preceptors and 94% said they mostly or completely achieved their learning goals during their practicum. We intend to continue to use the practicum debrief survey and have identified new outcome measures about the practicum experience (see Table 2.7.b.i for more details) as part of our ongoing monitoring and evaluation.

Criteria for Waiving Practicum

SFU's Master's Degree in Public Health programs deem the practice experience a critical component of the learning process and the attainment of core learning competencies established for the program. As a consequence, we do not permit any waivers of the practice requirement. Students with work experience in public health are asked to

complete a practicum in a setting which introduces them to a different set of skills and experiences than is the case in their workplace.

Practice Experience Placements

2.4.b Identification of agencies and preceptors used for practice experiences for students, by specialty area, for the last two academic years.

Year	Concentration	Title	Site & Location	Preceptor
2013	PH	Evaluation of BC Take Home Naloxone (THN) Program	BC Centre for Disease Control, BC, Canada	Dr. Jane Buxton -- Lead, Harm Reduction Unit
2013	PH	Developing Aboriginal Youth Suicide Communication Protocols for the Fraser Health Authority	Fraser Health Authority, BC, Canada	Brian Muth -- Community Engagement Coordinator, Aboriginal Health
2013	PH	Young Professionals for the Millennium Development Goals Program: Faces, Voices, Places Initiative, Pan American Health Organization (PAHO): Belize	National Drug Abuse Control Council, Belize	Ivan Cabb -- Technical Advisor on Mental Health and Disaster Risk Reduction
2013	GH	The Link Between Tobacco, Stroke and Cardiovascular Disease	World Health Organization, Switzerland	Dr. Lubna Bhatti -- Epidemiologist, CIC, Prevention of Noncommunicable Diseases
2013	PH	Rural Injury Prevention	Vancouver Coastal Health, BC, Canada	Laurie Leith -- Director
2013	GH	Participating in Community Outreach for the Joining Hands Initiative in Tanzania	Aga Khan Health Services, Tanzania	Anitah Muruve -- Project Manager, Joining Hands Initiative
2013	PH	Tobacco Free Initiative, World Health Organization	World Health Organization - Tobacco Free Initiative, China	Dr. Angela Pratt -- Technical Officer - Tobacco Free Initiative
2013	SIH	Scale Up of Prevention Services for Drug Related Overdoses.	Canadian Drug Policy Coalition, BC, Canada	Connie Carter -- Senior Policy Analyst
2013	GH	Faces, Voices, and Places of the Millennium Development Goals and the Intersectoriality, Health, and Municipal Development Initiative in Jinotega, Nicaragua	Pan American Health Organization, Nicaragua	Aida Mercedes Soto Bravo -- National Officer - Neglected Diseases, Zoonotic Diseases and Vector-borne diseases

Table 2.4.b Selected Practice Experience Placements by Specialty Area (see Appendix 2.4.b.i for a full list)				
Year	Concentration	Title	Site & Location	Preceptor
2013	PH	Health Equity and Prevention	Fraser Health Authority, BC, Canada	Victoria Lee -- Medical Health Officer, Samantha Tong -- Consultant, Population Health Strategy
2013	GH	World Health Organization, Tobacco Free Initiative	World Health Organization Western Pacific Regional Office, Philippines	James Rarick -- Technical Officer, Tobacco Free Initiative
2013	SIH	Social Determinants and Health Equity in Healthcare Commissioning in Poland	WHO Country Office, Poland, Poland	Paulina Miskiewicz - - Head of Country Office
2013	GH	Chatham House: Safe and Secure Biomaterials in Global Health Practicum	The Royal Institute of International Affairs, Chatham House, United Kingdom	Nigel Lightfoot -- Associate Fellow, Centre on Global Health Security
2013	GH	Health Equity Impact Assessment of Canada's Migrant Communities	Canadian Collaboration for Immigrant and Refugee Health (CCIRH), Ontario	Dr. Kevin Pottie -- Chair, CCIRH
2013	PH	Increasing the Uptake of Evidence-based Clinical Prevention Activities	Fraser Health Authority, BC, Canada	Rachel Douglas -- Project Coordinator, Clinical Prevention
2013	EOH	Workplace Musculoskeletal Injuries in British Columbia	BC Federation of Labour, BC, Canada	Nina Hansen -- Director, Occupational Health & Safety and Climate
2013	EOH	Assessment of Workplace Wellness in Healthcare Organizations	Fraser Health Authority, BC, Canada	Dave Keen -- Executive Director, Workplace Health
2013	PH	Aboriginal Primary Health Care Knowledge Exchange Initiative	Vancouver Coastal Health, BC, Canada	Peter Vlahos -- Regional Director, Aboriginal Health Strategic Initiatives, VCH
2013	GH	Promoting Knowledge Exchange and Community Engagement on Chagas Disease in Gran Chaco, Argentina	Instituto Nacional de Parasitologia Dr. Mario Fatała Chaben, Argentina	Ignacio Llovet -- Professor, Researcher
2013	SIH	Quality Improvement of Harm Reduction Service Delivery & Supplies Distribution	Vancouver Coastal Health, BC, Canada	Chris Buchner -- Regional Director of Prevention
2013	SIH	Knowledge Translation in the HIV/AIDS Context	Dr. Peter AIDS Foundation, BC, Canada	Patrick McDougall - - Knowledge Translation and Evaluation Officer

Table 2.4.b Selected Practice Experience Placements by Specialty Area (see Appendix 2.4.b.i for a full list)				
Year	Concentration	Title	Site & Location	Preceptor
2014	GH	BC Poverty Reduction Coalition	BC Poverty Reduction Coalition, BC, Canada	Trish Garner -- Community Organizer
2014	GH	Advocacy and Health: A Practicum Plan for Working with Medecins Sans Frontieres Access Campaign in India	Access Campaign, Medecins Sans Frontieres, India	Leena Menghaney -- Campaign Coordinator
2014	EOH	Fraser Health Workplace Wellness: Moving Forward	Fraser Health Authority, BC, Canada	Helena Swinkels -- Medical Health Officer, Dave Keen - - FH Workplace Health Executive Director
2014	SIH	Engaging Diverse Communities to Understand Cultural Values and Beliefs in Acute Care	Fraser Health Authority, BC, Canada	Sana Fakh -- Leader, Diversity Education
2014	PH	Build Healthy Communities	Fraser Health Authority, BC, Canada	Dr. Beth Snow -- Evaluation Specialist, Public Health
2014	GH	Sexual and Reproductive Health Internship, UNFPA Country Office, Mongolia	UNFPA Country Office, Mongolia	Iliza Azyei -- National Programme Officer
2014	EOH	Development and Implement Best Practice, Multi-media, Multi-lingual Educational Messages on TB Disease and Latent TB Infection for Use in a TB Clinic Waiting Room	BC Centre for Disease Control, BC, Canada	Dr. Maureen Mayhew -- Physician
2014	GH	United Nations High Commissioner for Refugees Malaysia	United Nations High Commissioner for Refugees, Malaysia	Dr. Susheela Balasundaram -- Head of the Individual Assistance Department, Wong Chun Ting
2014	SIH	LGBT Community Handbooks	Fraser Health Authority - Diversity Services, BC, Canada	Sana Fakh -- Leader, Diversity Education
2014	PH	Evaluation of Healthy Families BC's Online Breastfeeding Promotion Materials	BC, Canada Ministry of Health, BC, Canada	Carolyn Solomon -- Manager, Maternal and Women's Health

Table 2.4.b Selected Practice Experience Placements by Specialty Area (see Appendix 2.4.b.i for a full list)				
Year	Concentration	Title	Site & Location	Preceptor
2014	PH	Fraser Health Building Healthy Communities Initiative	Fraser Health Authority, BC, Canada	Samantha Tong -- Consultant, Population Health Strategy, Tobie Patterson -- Analyst, Public Health Initiatives
2014	SIH	Heart Healthy Children and Youth	Heart and Stroke Foundation, Ontario	Greg Killough -- Health Promotion Specialist
2014	EOH	Evaluation of Job Characteristics on Glycemic Control in Workers with Diabetes Mellitus Type 2	Baharloo Hospital (Center of Occupational Medicine), Iran	Dr. GholamReza Pouryaghoub -- Assistant Professor, Occupational Medicine
2014	SIH	Preparing the 2014 Survey on Drug Use among Harm Reduction Clients & Outlining Evaluation Objectives for the Transition from Methadone to Methadose	BC Centre for Disease Control, BC, Canada	Dr. Jane Buxton -- Physician Epidemiologist
2014	GH	Pamoja Tunaweza Women's Centre Community Outreach Programs and the Kilimanjaro Cervical Cancer Screening Project	Pamoja Tunaweza Women's Centre, Tanzania	Dr. Karen Yeates -- Director
2014	PH	BC Healthy Connections Project: An Evaluation of the Nurse-Family Partnership Fidelity Dataset	Ministry of Health, BC, Canada	Donna Jepsen -- Provincial Coordinator
2014	EOH	Data Analysis using Existing Data from a Survey on Knowledge regarding Latent TB Infection	BC Centre for Disease Control, BC, Canada	Dr. Maureen Mayhew -- Physician
2014	PH	Fostering Youth Participation in Sexual Health Research and Education	Planned Parenthood Toronto, Ontario	Cheryl Dobinson -- Director of Community Programming and Research
2014	PH	Air Quality and Noise Issues	World Health Organization European Center for Environment and Health, Germany	Marie-Eve Heroux -- Technical Officer
2014	PH	Physician Immunization Survey	Fraser Health Authority, BC, Canada	Dr. Michelle Murti - - Medical Health Officer

2.4.c Data on the number of students receiving a waiver of the practice experience for each of the last three years.

SFU's Master's Degree in Public Health deems the practice experience a critical component of the learning process and the attainment of core learning competencies established for the program. As a consequence, we do not permit any waivers of the practice requirement.

2.4.d Data on the number of preventive medicine, occupational medicine, aerospace medicine, and public health and general preventive medicine residents completing the academic program for each of the last three years, along with information on their practicum rotations.

SFU's Master's Degree in Public Health does not have any residents in preventive medicine, occupational medicine, aerospace medicine, or public health and general preventive medicine.

Criterion Assessment

2.4.e Assessment of the extent to which this criterion is met.

Strengths

- The FHS Master's Degree in Public Health programs has a well-developed framework for Practicum placements.
- The Practicum experience is built upon a foundation of seven guiding principles that ensure that core public health knowledge domains and core competencies are acquired through the experience.
- The Practicum experience is designed to strengthen collaborations, partnerships, and knowledge sharing between SFU's academic public health environment and the practice of public health in professional organizations such as non-profits, public sector, government and other organizations.
- The Practicum experience is fully developed in local, national, and international venues providing students with a rich, diverse, and rewarding range of practice-based experiences.
- The Practicum experience is situated within a strong framework of leadership, oversight and support thus ensuring that Practice experiences for students, faculty members and participating organizations are of the highest academic and professional quality.

Weaknesses

- The FHS Master's Degree in Public Health does not offer formal orientation and support for preceptors beyond providing a detailed Practicum Guide that includes a detailed description of the process including roles and responsibilities of the preceptors.
- Evaluating student competencies in the Practicum experience could be improved by asking preceptors to evaluate those competencies.

Plans

- We recently created an MPH Advisory Committee. As discussed below in Criterion 2.7, this committee will enable us to regularly engage with preceptors to support their mentorship of our students and receive important feedback about how better to prepare students for their practice experience.
- We are targeting repeat practicum sites for visits to consolidate our relationships (including developing memoranda of understanding), review practicum experiences and explore how we can provide more active orientation and support to preceptors and better prepare our students.
- Senior Supervisors are encouraged to visit practicum sites wherever possible, to engage with preceptors and review the learning experience to enable more direct support to the preceptors.
- We are revising our preceptor evaluation form for the 2015 practicum semester creating a new outcome measure for student achievement of competencies that will be part of our ongoing monitoring and evaluation.
- We will continue to use the practicum debrief survey to evaluate all practicum experience moving forward.

This Criterion is met.

CRITERION 2.5 – CULMINATING EXPERIENCE

All graduate professional degree programs identified in the instructional matrix shall assure that each student demonstrates skills and integration of knowledge through a culminating experience.

Culminating Experience Overview

2.5.a Identification of the culminating experience required for each degree program. If this is common across the program's professional degree programs, it need be described only once.

The culminating experience for students enrolled in the Master's Degree in Public Health is also the way in which students at SFU fulfill the University's graduation requirements. The University allows degree programs to determine the way in which the graduation requirement will be fulfilled. The FHS has established two routes for degree fulfillment by students enrolled in the Master's Degree in Public Health: the Master's Project or the Master's Thesis.

The Master's Project

The Master's Project has been designed to be a culminating experience which requires students to synthesize and integrate the knowledge they have acquired in coursework and other learning experiences (notably the Practicum experience) throughout their degree program. The culminating experience consists of the mentored preparation of a scholarly paper and successful presentation and defense of this paper before a Faculty committee. The Master's Project is mostly completed by the end of the sixth semester. Students typically begin work on the Master's Project in the fourth semester, upon return from the practicum. A copy of the guidelines for completing the Master's project (updated in 2011) are available in Appendix 2.5.a.ii or at:

<http://www.sfu.ca/fhs/future-students/graduate/master-of-public-health/master-project.html>

The Master's Project generally involves a critical investigation of a public health issue or problem based on original analysis and can include a critical literature review; a policy analysis; analysis of quantitative and/or qualitative data (occasionally collected or assembled during the practicum); the design of a program evaluation and / or analysis of data from an evaluation itself (again, to extend a practicum program evaluation experience); a critique of a project or program strategy/intervention; and the design of a public health intervention. The goal is for students to undertake a project that approximates what would be required of a public health scientist engaged in professional practice. The written product of this effort is a high quality scholarly paper ideally (but not necessarily) suitable for publication in a peer reviewed journal. The paper must demonstrate the student's ability to:

- succinctly define a public health issue or problem;
- discuss the public health problem within the context of public health practice and/or policy in Canada or globally;
- critically review the research literature of relevance to the topic;
- develop a persuasive, evidence-based argument;
- describe the methodology employed (e.g., data sources, data or policy analysis, case method analysis, program evaluation, etc.);
- explain findings in a style appropriate for public health practice or scholarly publication; and,
- analyze and interpret findings and make appropriate conclusions and recommendations for policy / practice.
- reflect on the learning experience of the capstone and how this has contributed to preparing the student for public health practice

The Master's Project must be submitted in a form that is amenable to examination and review. This means that the documentation of the research or inquiry process must be provided in a form that allows others to follow the line of reasoning and to evaluate the credibility of work. At minimum, the project must meet the criteria of content and presentation that are as rigorous as those applied to work done in the professional public health setting. However, if

the paper is to be submitted to a peer-reviewed scientific journal, the student and committee may agree that additional standards are appropriate.

Each student has a Supervisory Committee to oversee and provide mentorship for the Master's Project. The Supervisory Committee is comprised of the student's senior academic supervisor and occasionally an additional faculty committee member (typically from SFU, but a faculty member from another university may be approved). Before presenting their Master's Project, the student must obtain the approval from his/her Supervisory Committee members stating that they believe the Project meets the standards of the Master's Degree in Public Health, the FHS, and SFU.

When determined "ready to present" by the Supervisory Committee, the student submits the Master's Project to an External Reader. External readers must be familiar with the area of research or the problem being addressed, but cannot have any prior input into the development of the Master's Project. The external reader formally becomes a member of the supervisory committee at this point. The senior supervisor presides over the student presentation which follows the University's Rules for Defenses (the SFU General Graduate Regulations are available at <http://www.sfu.ca/students/calendar/2015/spring/fees-and-regulations/grad-regulation.html>).

The student presentation of the MPH Project itself is typically 1.5 to 2.0 hours in length and is open to all members of the university community and must be formally advertised. The student makes a 20 minute presentation and then is questioned by the external reader, any other members of the supervisory committee, and the senior supervisor. After the supervisory committee has completed their questioning, the remaining members of the audience may ask questions and make comments. Upon conclusion of questioning, the supervisory committee will ask the student and audience to leave and will arrive at one of four decisions: (1) pass without revisions, (2) pass on condition of revisions completed to the satisfaction either of the senior supervisor (minor revisions) or evaluating committee as a whole (major revisions), (3) defer judgment pending review of revisions, or (4) fail. The Supervisory Committee's decision is based on a review of the student's work and knowledge base in the context of the Master's Project objectives (see Appendix 2.5.a.iii for Master's Project Assessment Tool).

The final, approved Master's Project is lodged in the FHS archives and is available to current and future students to review to support their own capstone project work.

See Appendix 2.5.a.i for a three year listing of all Masters Projects completed by students enrolled in the Master's Degree in Public Health in the FHS at SFU. Samples of exemplar Masters Projects are provided in Resource 2.5.

The Master's Thesis

Students may elect to undertake a Master's Thesis instead of the Master's Project as a culminating experience for the Master's Degree in Public Health. The thesis option enables the student to develop and implement original research that addresses a research problem in public health from an interdisciplinary perspective. The requirements for selecting a thesis topic include:

- the research plan must be feasible given the student's skills and resources,
- the research must contribute to the knowledge base of public health, and,
- the thesis must demonstrate the student's integration of core public health knowledge and understanding achieved through practice-based experiences in professional public health environments.

The Master's Thesis normally takes at least additional 2-3 semesters to complete. The process of written thesis preparation, defense presentation, and supervisory and evaluating committee membership and evaluation is the same as for Master's Projects outlined above with the following exceptions. First, it is required that there are at least two members of the supervisory committee, excluding the external examiner. Second, the student presentation of the final thesis is a typical Master's thesis defense with an external examiner and is chaired by the Director of the MPH Program. Third, the final approved thesis is formally bound and lodged in the SFU library as a scholarly

contribution. The guidelines for preparation and defence of a Master’s thesis at SFU are described by the General Graduate Regulations (link provided above).

Table 2.5.a.ii provides a list of Master Thesis completed within the MPH programs of the FHS over the past three years.

Table 2.5.a.ii. MPH Program Student Master's Theses - 2011/12 to 2013/14		
Student's Name	Thesis Title	Senior Supervisor
2011/2012		
Ellen Randall	In Search of Attachment: The Experiences of Chronically Ill Women Transitioning between Family Physicians in Rural Ontario	Dr. Valorie Crooks
Laura Cotton	Investigation of Host and Viral Genetic Factors Influencing HIV-1 Evolution across North America: Implications for Vaccine Design	Dr. Zabrina Brumme
2012/2013		
Krystyna Adams	Something to Think About: Informing Canadians about Ethical Concerns in Medical Tourism	Dr. Jeremy Snyder
2013/2014		
Susann Camus	The Rise and Fall of the Occupational Health and Safety Agency for Healthcare (OHSAH) in British Columbia, 1999 – 2010	Dr. John Calvert
Kaitlin J Lauridsen	Use of a School-based Audit Tool to Guide Anti-racism Education in Schools: A Pilot Assessment	Dr. Marina Morrow
Karen Spring	Understanding the Limitations of Employer Prevention Programs in Transnational Settings: A Case Study of Women Workers in Canadian-Owned Maquiladoras in Honduras	Dr. John Calvert

Criterion Assessment

2.5.b Assessment of the extent to which this criterion is met.

Strengths

- The Master’s Degree in Public Health in the FHS at SFU ensures that each student demonstrates integration of knowledge and skills from the breadth and depth of the course of study through an evaluated culminating experience. The University offers two options for students to obtain this culminating experience – a Master’s Project or a Master’s Thesis.
- The evaluation process for the Master’s culminating experience is rigorous with extremely high performance standards expected.
- The evaluation process provides for a public presentation (capstone) and formal defense (thesis) that ensures the student has competence and thorough understanding of the public health research topic or problem that s/he has investigated.
- Members of the supervisory committee, including the external examiner / reader complete a Capstone Assessment for every presentation. This is intended to assess that the learning objectives of the capstone are met for each presentation. Three items from this assessment are reported as outcome measures of student achievement Criterion 2.7.
- The performance expectations and evaluation processes for the culminating experience are informed by the core MPH competencies. Students are expected to demonstrate they have met the learning objectives mapped to these core competencies.

Weaknesses

- MPH Master’s projects have varied greatly over the years with respect to depth, rigour and excellence. While a range for performance should be expected for any academic output, there is concern that some students are not obtaining a rich enough learning experience sufficient to prepare them for public health

practice. Student attainment of core competencies through completing the culminating experience needs to be more extensive.

- Students have requested earlier guidance about MPH Project expectations to supplement the guidelines already provided.
- Students that do not link the culminating experience to the practicum often extend their time in the program leading to delayed graduation.

Plans

- In 2014, we initiated efforts to better integrate the practicum and culminating experience. Students are asked to reflect on this during the practicum and upon completion of the practicum are asked to prepare a capstone statement to help them link the significance of the practice experience to their culminating experience. We will continue to associate these two learning experiences and build preparatory steps for the capstone into the practicum.
- There have been previous attempts to provide a dedicated Capstone Preparation Course on return from the practicum but these were not well received by the students. We are currently reviewing this now that we have more formally linked the practicum and capstone experiences.
- The assessment tool for the culminating experience is being revised to more deeply explore the extent to which the capstone helps achieve the core competencies.

This Criterion is met.

CRITERION 2.6 – REQUIRED COMPETENCIES

For each degree program and area of specialization within each program identified in the instructional matrix, there shall be clearly stated competencies that guide the development of educational programs.

Core Public Health Competencies

2.6.a Identification of core public health competencies that all MPH or equivalent professional masters degree students are expected to achieve through their courses of study.

The Core Competencies developed for the Master’s Degree in Public Health programs in the FHS refer to the essential knowledge and skills required for the successful application and practice of public health. In most cases the competencies transcend the boundaries of specific disciplines. They provide the building blocks for effective public health practice, and, for undergraduates, constitute the fundamentals of a public health approach or perspective.

We have organized our core competencies into *four broad categories*: basic population and public health sciences; fundamentals of public health practice; the population and public health perspective; and the organization of population and public health systems and services. The definitions of these categories are as follows:

Basic Population Health Sciences: Students will acquire the required foundation level knowledge, thinking skills and perspectives necessary for competent entry-level public health practice. This includes knowledge about the health status of populations, inequities in health, the determinants of health and illness, strategies for health promotion, disease and injury prevention, and health protection. The basic population health sciences include epidemiology, biostatistics, the social and health policy sciences, and environmental public health.

[Core competencies 1-5]

Fundamentals of Public Health Practice: Students will integrate the core concepts and evidence generated by the basic population health sciences to inform decision-making regarding health policies and programs. Effective practice entails the ability to identify and justify program and policy options, design public health programs, identify and work with institutional and community partners, and to communicate effectively with diverse stakeholders.

[Core competencies 6-8]

The Population Health Perspective: Students will know and apply the fundamentals of a population health approach. The population health approach aims to improve the health of the entire population and to reduce health inequities among population groups by examining, studying, and acting upon the broad range of factors and conditions that have a strong influence on health. The population health perspective has two important characteristics: an ability to assess critically how various aspects or markers of social location affect health outcomes, access to health care, and program design and implementation; and an ability to think critically at a systems level, recognizing the interrelationships among and between factors that affect the health of populations.

[Core competencies 9-11]

The Organization of Population and Public Health Systems and Services: Students will be able to identify and explain the organization of the population and public health system, both in Canada, as well as in a more global context. This involves understanding the interdependencies of health systems, ranging from the tertiary services characteristic of health care to institutions that promote and protect health through policy, regulation, surveillance, and community-level programming.

[Core competencies 9 & 12]

Concentrations: All students will gain additional knowledge and expertise afforded by in depth study in one of the following four areas of concentration:

- **Environmental and Occupational Health:** 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.
- **Global Health:** Adapts and applies the skills and knowledge of population and public health to work in resource-challenged contexts, with a commitment to promoting better and more equitable health worldwide.
- **Population Health:** Health policy and planning for health care delivery, health promotion and disease prevention, and applied methods for assessing population health.
- **Social Inequities and Health:** Critical and reflexive research and practice that addresses health inequities related to poverty, racism, colonialism, sexism and other forms of structural inequality.

Table 2.6.a. – Core Competencies – All Concentrations

***Basic Population Health Sciences:** Students will acquire the required foundation level knowledge, thinking skills and perspectives necessary for competent entry-level public health practice. This includes knowledge about the health status of populations, inequities in health, the determinants of health and illness, strategies for health promotion, disease and injury prevention, and health protection. The basic population health sciences include epidemiology, biostatistics, the social and health policy sciences, and environmental public health.*

CC1: ***Epidemiology:*** Explain and apply the theories, concepts and methods of descriptive and analytic epidemiologic approaches for improving population and public health and reducing health inequalities from local to global levels.

Course-level learning objectives include the following:

- Explain the role of epidemiology in improving population health and reducing health inequities.
- Display and explain graphical and tabular representations of epidemiological data to inform understanding of population health status and health inequalities.
- Use traditional public health and health equity perspectives to generate descriptive and analytic research questions and hypotheses.
- Identify sources and limitations of provincial, national and international surveillance data on population health status and health inequalities.
- Use basic methods for investigating outbreaks of health problems in communities using concepts of disease variation by time, person and place.
- Explain the strengths, limitations and appropriate uses of major epidemiological study designs for understanding upstream and downstream causes of disease.
- Calculate and interpret basic epidemiology measures of disease occurrence, disease association, and public health screening program effectiveness.
- Define and interpret the roles of chance, bias, confounding, effect modification and criteria for causal inference in the critical evaluation of quantitative population and public health literature.
- Synthesize epidemiological data to provide a rationale for population health programs, policy decisions, and advocacy.

CC2. ***Biostatistics:*** Apply statistical reasoning and methods in addressing, analyzing, and solving problems of population and public health.

Course-level Learning Objectives:

- Describe basic concepts of probability, random variation, and commonly used statistical probability distributions.
- Describe preferred methodological alternatives to commonly used statistical methods when assumptions are not met.

- Distinguish among the different measurement scales, data types, and study designs and determine the implications for the selection of statistical methods to be used based on these distinctions.
- Apply descriptive techniques commonly used to summarize population and public health data.
- Apply common statistical methods for inference, including hypothesis-testing and estimation.
- Apply basic informatics techniques with vital statistics and population and public health records in the description of population health characteristics and in population health research and evaluation.
- Interpret results of statistical analyses found in population and public health literature.
- Perform common statistical analyses with a computer software package and interpret the results.

CC3. *Methods of Population and Public Health Assessment, Diagnosis, and Analysis:* Determine population and public health concerns through analysis and diagnosis of communities and populations using a variety of quantitative and qualitative methodologies.

Course-level Learning Objectives:

- Describe the components and methods of effective disease surveillance systems and existing disease reporting networks
- Describe the components of effective infectious disease emergency preparedness response systems
- Distinguish high-risk, population-based, and other approaches to improve population health and health equity.
- Be able to conduct a population or community health assessment through the use of relevant/appropriate data/information sources.
- Critically assess different approaches to prevent and control disease taking into account contextual factors
- Differentiate between qualitative and quantitative methods of data collection in relation to their strengths, limitations, and appropriate uses, and emphases on reliability and validity.
- Recognize how data both elucidate and are constrained by ethical, political, scientific, economic, and overall public health issues.
- Be able to apply evidence in recommending policies and programs that promote population health and health equity.

CC4. *Environmental and Occupational Health:* Identify the main environmental factors that affect the health of workers and communities, and explain common methods of risk reduction and mitigation.

Course-Level Learning Objectives:

- Identify the main environmental factors that affect the health of a community.
- Describe the direct and indirect human, ecological, and safety effects of major environmental /occupational agents and challenges.
- Describe governmental regulatory programs, guidelines, and authorities that control environmental and occupational health issues, both domestically and internationally.
- Specify approaches for assessing, preventing, and controlling environmental hazards that pose risks to human health and safety.
- Be able to define and apply the concepts of risk, susceptibility, and resilience to environmental agents, changes and/or stressors.
- Identify the workplace-based determinants of health.

CC5. *Social Sciences:* Explain the basic theories, concepts and models from a range of social and policy sciences that are used in population and public health research and practice.

Course-Level Learning Objectives:

- Explain and be able to apply the basic theories, concepts and models from a range of social and behavioral sciences disciplines that are used in population and public health research and practice.

- Identify the characteristics of social systems and structural barriers that affect population and public health and be able to explain how these become embodied in the production of health inequities.
- Describe the role of political, economic, social, and community factors in both the onset and solution of population and public health problems.
- Identify and apply strategies for positive changes to improve population and public health and reduce health inequities at macro-, meso-, and micro-levels.
- Describe the ethical principles that are applied to population and public health program planning, implementation, and evaluation.
- Explain and apply methods of social and policy analysis towards healthy public policy
- Explain the interconnections between social policies and population and public health policies and outcomes.

Fundamentals of Public Health Practice: Students will integrate the core concepts and evidence generated by the basic population health sciences to inform decision-making regarding health policies and programs. Effective practice entails the ability to identify and justify program and policy options, design public health programs, identify and work with institutional and community partners, and to communicate effectively with diverse stakeholders.

CC6. *Partnerships, Professionalism, Collaboration and Advocacy*: Identify appropriate partners in addressing population and public health issues; identify and analyze ethical considerations in public health programs; and devise appropriate strategies for mobilizing communities around a public health issue.

Course-Level Learning Objectives:

- Describe the role of community development, policy advocacy, and communication strategies to promote public health.
- Distinguish between population and individual ethical considerations in relation to the benefits, costs, and burdens of population and public health programs.
- Describe the importance of working collaboratively with diverse communities and constituencies.

CC7. *Communication*: Demonstrate effective communication with and mobilization of individuals, families, groups, communities, and colleagues to improve population and public health.

Course-Level Learning Objectives:

- Describe how the population and public health infrastructure is used to collect, process, maintain, and disseminate data.
- Describe how social, organizational, and individual factors influence and are influenced by public health communications.
- Use information technology to access, evaluate, and interpret public health data.
- Critically assess the role of communication in education and advocacy for change in population and public health, from individual, to community, to population levels.
- Demonstrate effective written and oral skills for communicating with difference audiences in the context of population and public health activities.

CC8. *Policy and Program Planning, Implementation, and Evaluation*: Identify program and policy options relevant to population and public health issues, design and implement population and public health programs, and develop appropriate methods of monitoring and evaluation.

Course-Level Learning Objectives:

- Use a population health perspective in assessing health issues and in planning, implementing and evaluating prevention and control programs

<ul style="list-style-type: none"> • Develop a population health program plan and logic model, including goals, outcomes, process objectives, and implementation steps. • Be able to monitor and evaluate the implementation of programs, policies, and interventions • Be able to develop and conduct a population health needs assessment.
<p>The Population Health Perspective: Students will know and apply the fundamentals of a population health approach. The population health approach aims to improve the health of the entire population and to reduce health inequities among population groups by examining, studying, and acting upon the broad range of factors and conditions that have a strong influence on health. The population health perspective has two important characteristics: an ability to assess critically how various aspects or markers of social location affect health outcomes, access to health care, and program design and implementation; and an ability to think critically at a systems level, recognizing the interrelationships among and between factors that affect the health of populations.</p>
<p>CC9: <i>Core Concepts in Population and Public Health</i>: Explain the history, paradigms, basic theories, concepts, frameworks, and models of population and public health, and as pertinent from local to global levels.</p> <p>Course-Level Learning Objectives:</p> <ul style="list-style-type: none"> • Explain the historical development, structure, and interaction of population and public health and health care systems from local to global levels. • Explain and apply the concepts of the health status of populations; determinants of health and illness; health promotion and disease prevention; and factors influencing the use of and decisions about health services. • Identify, analyze, and be prepared to challenge structures that produce poverty, inequity, and disease. • Describe primary, secondary and tertiary prevention activities and apply them to public health problems.
<p>CC10. <i>Systems Thinking</i>: Recognize system level properties that result from dynamic interactions among human and social systems, from local to global, and from cell to society.</p> <p>Course-Level Learning Objectives Include:</p> <ul style="list-style-type: none"> • Identify unintended consequences produced by changes made to a population and public health system. • Analyze interrelationships among systems, from local to global, that influence the quality of life of people in their communities. • Explain the effects of political, social and economic policies on population and public health systems at the local, province/state, national, and international levels.
<p>CC11. <i>Gender, Culture, and Social Location</i>: Explain how gender, culture and diverse markers of social location are related to health outcomes; access to and delivery of health services; and program planning.</p> <p>Course-Level Learning Objectives:</p> <ul style="list-style-type: none"> • Recognize how gender, ethnicity, race, class and other markers of social location are related to health outcomes. • Apply the basic concepts, skills, and strategies required for community engagement and empowerment among diverse communities. • Develop and adapt policies and program delivery that are responsive to diverse populations and groups.
<p>The Organization of Population and Public Health Systems and Services: Students will be able to identify and explain the organization of the population and public health system, both in Canada, as well as in a more global context. This involves understanding the interdependencies of health systems, ranging from the tertiary services characteristic of health care to institutions that promote and protect health through policy, regulation, surveillance, and community-level programming.</p>

CC12. *Health Systems*: identify the factors that determine the quality, accessibility, organization, performance, costs, and outcomes of health services for individuals, communities and populations.

Course-Level Learning Objectives:

- Identify and analyze contemporary problems in Canadian and/or global health care systems and policy.
- Explain the role of the health care system in contributing to population and public health.
- Explain how methods of financing, provider payment regulation, historical, and social/cultural factors affect the accessibility, quality, organization, performance, and outcomes of the health care system.
- Identify the roles played by both contemporary and historic political and economic factors on the accessibility, quality, organization, performance and outcomes of the health care system.
- Describe how ethical values relate to and inform the organization and reform of health care systems.
- Be able to apply methods for health care system design, improvement, and evaluation.

2.6.b Identification of a set of competencies for each concentration, major or specialization identified in the instructional matrix including professional and academic graduate degree curricula and baccalaureate public health degree curricula.

Our undergraduate program was previously described with respect to competencies in our self-study of 2009. Our decision to seek accreditation through the standalone baccalaureate option is supported by Section 2.8 in this self-study in accordance with 4.0 (Curriculum) as defined in the Accreditation Criteria for Standalone Baccalaureate Programs.

Learning Matrix

2.6.c A matrix that identifies the learning experiences by which the competencies in 2.6.a and 2.6.b are met. If this is common across the program, a single matrix will suffice. If it varies by degree or specialty area, sufficient information must be provided assess compliance by each.

Table 2.6.b.i - Matrix of Core Competencies: MPH Concentration in Environmental and Occupational Health																					
Course Number:	Core MPH Requirements								Concentration Requirements			And one of...	And one of..	And one of...	And two off						
	HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 815	HSCI 847	HSCI 849	HSCI 824	HSCI 827	HSCI 830	HSCI 835	HSCI 846	HSCI 848	HSCI 804	HSCI 850	HSCI 855	
Course Title:	Biostat I	Principles of Epidemiology	Qualitative and Survey Res Methods	Environ & Occup Hlth Practicum		Master's Project	Core Concepts & Practice 1	Core Concepts & Practice 2	Concepts & Princ Pop Pub Hlth	Risk Assessment and Commun	Env and Occup Epidemiology	Comp Hlth Systems	Canadian Hlth Systems	Health Promotion	Soc Behav Context Hlth Dis	Env Hlth Exposure Assess & Analysis	Toxicology, Suscept & Env Hlth	Biostat II	Air Poll Hum Hlth	Dis Prev & Control	
Competencies																					
CC1: <i>Epidemiology</i> : Explain and apply the theories, concepts and methods of descriptive and analytic epidemiologic approaches for improving population and public health and reducing health inequalities from local to global levels.	R	P									R										
CC2: <i>Biostatistics</i> : Apply statistical reasoning and methods in addressing, analyzing, and solving problems of population and public health.	P	R																P			

Table 2.6.b.i - Matrix of Core Competencies: MPH Concentration in Environmental and Occupational Health																				
Course Number:	Core MPH Requirements								Concentration Requirements			And one of...	And one of..	And one of...	And two off					
	HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 815	HSCI 847	HSCI 849	HSCI 824	HSCI 827	HSCI 830	HSCI 835	HSCI 846	HSCI 848	HSCI 804	HSCI 850	HSCI 855
Course Title:	Biostat I	Principles of Epidemiology	Qualitative and Survey Res Methods	Environ & Occup Hlth Practicum		Master's Project	Core Concepts & Practice 1	Core Concepts & Practice 2	Concepts & Princ Pop Pub Hlth	Risk Assessment and Commun	Env and Occup Epidemiology	Comp Hlth Systems	Canadian Hlth Systems	Health Promotion	Soc Behav Contex Hlth Dis	Env Hlth Exposure Assess & Analysis	Toxicology, Suscept & Env Hlth	Biostat II	Air Poll Hum Hlth	Dis Prev & Control
CC3. <i>Methods of Population and Public Health Assessment, Diagnosis, and Analysis:</i> Determine population and public health concerns through analysis and diagnosis of communities and populations using a variety of quantitative and qualitative methodologies.		R	P		R				P	P	R	P		R		P				
CC4. <i>Environmental and Occupational Health:</i> Identify the main environmental factors that affect the health of workers and communities, and explain common methods of risk reduction and mitigation.				P						R	R					R	R		R	R
CC5. <i>Social Sciences:</i> Explain the basic theories, concepts and models from a range of social and policy sciences that are used in population and public health research and practice.														P	P					

Table 2.6.b.i - Matrix of Core Competencies: MPH Concentration in Environmental and Occupational Health																				
Course Number:	Core MPH Requirements								Concentration Requirements			And one of...		And one of..		And one of...		And two off		
	HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 815	HSCI 847	HSCI 849	HSCI 824	HSCI 827	HSCI 830	HSCI 835	HSCI 846	HSCI 848	HSCI 804	HSCI 850	HSCI 855
Course Title:	Biostat I	Principles of Epidemiology	Qualitative and Survey Res Methods	Environ & Occup Hlth	Practicum	Master's Project	Core Concepts & Practice 1	Core Concepts & Practice 2	Concepts & Princ Pop Pub Hlth	Risk Assessment and Commun	Env and Occup Epidemiology	Comp Hlth Systems	Canadian Hlth Systems	Health Promotion	Soc Behav Contex Hlth Dis	Env Hlth Exposure Assess & Analysis	Toxicology, Suscept & Env Hlth	Biostat II	Air Poll Hum Hlth	Dis Prev & Control
CC6. <u>Partnerships, Professionalism, Collaboration and Advocacy</u> : Identify appropriate partners in addressing population and public health issues; identify and analyze ethical considerations in public health programs; and devise appropriate strategies for mobilizing communities around a public health issue.					P				P	P	R			P	R					
CC7. <u>Communication</u> : Demonstrate effective communication with and mobilization of individuals, families, groups, communities, and colleagues to improve population and public health.		P			P / R	P			P	P				P						
CC8. <u>Policy and Program Planning, Implementation, and Evaluation</u> : Identify program and policy options relevant to population and public health issues, design and implement population and public health programs, and develop appropriate methods of monitoring and evaluation.			R		R			R	P			P	P	R						

Table 2.6.b.i - Matrix of Core Competencies: MPH Concentration in Environmental and Occupational Health																				
Course Number:	Core MPH Requirements								Concentration Requirements			And one of...		And one of..		And one of...		And two off		
	HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 815	HSCI 847	HSCI 849	HSCI 824	HSCI 827	HSCI 830	HSCI 835	HSCI 846	HSCI 848	HSCI 804	HSCI 850	HSCI 855
Course Title:	Biostat I	Principles of Epidemiology	Qualitative and Survey Res Methods	Environ & Occup Hlth Practicum		Master's Project	Core Concepts & Practice 1	Core Concepts & Practice 2	Concepts & Princ Pop Pub Hlth	Risk Assessment and Commun	Env and Occup Epidemiology	Comp Hlth Systems	Canadian Hlth Systems	Health Promotion	Soc Behav Contex Hlth Dis	Env Hlth Exposure Assess & Analysis	Toxicology, Suscept & Env Hlth	Biostat II	Air Poll Hum Hlth	Dis Prev & Control
CC9: <i>Core Concepts in Population and Public Health</i> : Explain the history, paradigms, basic theories, concepts, frameworks, and models of population and public health, and as pertinent from local to global levels.		P	R						P		R	R			R					
CC10. <i>Systems Thinking</i> : Recognize system level properties that result from <i>dynamic interactions</i> among human and social systems, from local to global, and from cell to society.									R			P	R		P					
CC11. <i>Gender, Culture, and Social Location</i> : Explain how gender, culture and diverse markers of social location are related to health outcomes; access to and delivery of health services; and program planning.										R	P	R	R	P	P					
CC12. <i>Health Systems</i> : identify the factors that determine the quality, accessibility, organization, performance, costs, and outcomes of health services for individuals, communities and populations.									R			P	P							

Table 2.6.b.i - Matrix of Core Competencies: MPH Concentration in Environmental and Occupational Health																				
Course Number:	Core MPH Requirements								Concentration Requirements			And one of...	And one of..	And one of...	And two off					
	HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 815	HSCI 847	HSCI 849	HSCI 824	HSCI 827	HSCI 830	HSCI 835	HSCI 846	HSCI 848	HSCI 804	HSCI 850	HSCI 855
Course Title:	Biostat I	Principles of Epidemiology	Qualitative and Survey Res Methods	Environ & Occup Hlth Practicum		Master's Project	Core Concepts & Practice 1	Core Concepts & Practice 2	Concepts & Princ Pop Pub Hlth	Risk Assessment and Commun	Env and Occup Epidemiology	Comp Hlth Systems	Canadian Hlth Systems	Health Promotion	Soc Behav Contex Hlth Dis	Env Hlth Exposure Assess & Analysis	Toxicology, Suscept & Env Hlth	Biostat II	Air Poll Hum Hlth	Dis Prev & Control
EOHC1. Identify route(s) of and factors that influence exposure of humans to environmental toxicants and apply to formulating appropriate exposure reduction strategies.										R	P					P				
EOHC2. Demonstrate the ability to provide an overview of the molecular and genetic mechanisms involved in response to environmental contaminants with the use of examples from modern primary sources.				P							R					R	P			
EOHC3. Describe the advantages and disadvantages of measurements and models for assessing exposure in epidemiology and risk assessment and, based on this assessment, design appropriate exposure assessment strategies for various pollutants, routes of exposure, and exposure scenarios.				P						R	P					R				
EOHC4. Describe the main steps in environmental risk assessment, be able to apply these steps to a number of risk situations, and identify the strengths and weaknesses of current approaches to risk assessment.				P						P	R									

Table 2.6.b.i - Matrix of Core Competencies: MPH Concentration in Environmental and Occupational Health																				
Course Number:	Core MPH Requirements							Concentration Requirements			And one of...	And one of..	And one of...	And two off						
	HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 815	HSCI 847	HSCI 849	HSCI 824	HSCI 827	HSCI 830	HSCI 835	HSCI 846	HSCI 848	HSCI 804	HSCI 850	HSCI 855
Course Title:	Biostat I	Principles of Epidemiology	Qualitative and Survey Res Methods	Environ & Occup Hlth Practicum		Master's Project	Core Concepts & Practice 1	Core Concepts & Practice 2	Concepts & Princ Pop Pub Hlth	Risk Assessment and Commun	Env and Occup Epidemiology	Comp Hlth Systems	Canadian Hlth Systems	Health Promotion	Soc Behav Contex Hlth Dis	Env Hlth Exposure Assess & Analysis	Toxicology, Suscept & Env Hlth	Biostat II	Air Poll Hum Hlth	Dis Prev & Control
EOHC5. Be able to present and defend findings with the support of external or internal evidence and to assess validity and quality of experimental endpoints.				R							P					R				

Table 2.6.b.ii - Matrix of Core Competencies: MPH Concentration in Global Health																						
Course Number:	Core MPH Requirements							Concentration Requirements			Select one of....			Select two additional (inclusive of 825 & 826)								
	HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 821	HSCI 822	HSCI 824	HSCI 830	HSCI 804	HSCI 805	HSCI 806	HSCI 825	HSCI 826	HSCI 823	HSCI 828	HSCI 829	HSCI 855	HSCI 870
Course Title:	Biostat I	Principles of Epidemiology	Qualitative and Survey Res Methods	Environ & Occup Hlth Practicum	Master's Project	Core Concepts & Practice 1	Core Concepts & Practice 2	Core Concepts & Practice 3	Problems in Global Health	Globalization and Health	Comparative Health Systems	Health Promotion	Biostat II	Intermed Epi	Demog Analysis	Advocacy & Commun	Prog Planning & Eval	Hlth, Gender, Dev	Hlth Hum Sec, Social Justice	Hlth policy in global context	Dis Prev & Control	Global Hlth Int'l Affairs
Competencies																						
CC1: <i>Epidemiology</i> : Explain and apply the theories, concepts and methods of descriptive and analytic epidemiologic approaches for improving population and public health and reducing health inequalities from local to global levels.	R	P																				
CC2: <i>Biostatistics</i> : Apply statistical reasoning and methods in addressing, analyzing, and solving problems of population and public health.	P	R																				
CC3: <i>Methods of Population and Public Health Assessment, Diagnosis, and Analysis</i> : Determine population and public health concerns through analysis and diagnosis of communities and populations using a variety of quantitative and qualitative methodologies.	R	P		R				P		P	P											

Table 2.6.b.ii - Matrix of Core Competencies: MPH Concentration in Global Health																							
Course Number:	Core MPH Requirements							Concentration Requirements			Select one of....			Select two additional (inclusive of 825 & 826)									
	HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 821	HSCI 822	HSCI 824	HSCI 830	HSCI 804	HSCI 805	HSCI 806	HSCI 825	HSCI 826	HSCI 823	HSCI 828	HSCI 829	HSCI 855	HSCI 870	
Course Title:	BioStat I	Principles of Epidemiology	Qualitative and Survey Res Methods	Environ & Occup Hlth Practicum	Master's Project	Core Concepts & Practice 1	Core Concepts & Practice 2	Problems in Global Health	Globalization and Health	Comparative Health Systems	Health Promotion	BioStat II	Intermed Epi	Demog Analysis	Advocacy & Commun	Prog Planning & Eval	Hlth, Gender, Dev	Hlth Hum Sec, Social Justice	Hlth policy in global context	Dis Prev & Control	Global Hlth Int'l Affairs		
Competencies																							
CC4. <i>Environmental and Occupational Health</i> : Identify the main environmental factors that affect the health of workers and communities, and explain common methods of risk reduction and mitigation.				P					R													R	
CC5. <i>Social Sciences</i> : Explain the basic theories, concepts and models from a range of social and policy sciences that are used in population and public health research and practice.									P	P	P	P			R	P		P	R	P			P
CC6. <i>Partnerships, Professionalism, Collaboration and Advocacy</i> : Identify appropriate partners in addressing population and public health issues; identify and analyze ethical considerations in public health programs; and devise appropriate strategies for mobilizing communities around a public health issue.					P						P					P							

Table 2.6.b.ii - Matrix of Core Competencies: MPH Concentration in Global Health																						
Course Number:	Core MPH Requirements							Concentration Requirements			Select one of....			Select two additional (inclusive of 825 & 826)								
	HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 821	HSCI 822	HSCI 824	HSCI 830	HSCI 804	HSCI 805	HSCI 806	HSCI 825	HSCI 826	HSCI 823	HSCI 828	HSCI 829	HSCI 855	HSCI 870
Course Title:	Biostat I	Principles of Epidemiology	Qualitative and Survey Res Methods	Environ & Occup Hlth	Practicum	Master's Project	Core Concepts & Practice 1	Core Concepts & Practice 2	Problems in Global Health	Globalization and Health	Comparative Health Systems	Health Promotion	Biostat II	Intermed Epi	Demog Analysis	Advocacy & Commun	Prog Planning & Eval	Hlth, Gender, Dev	Hlth Hum Sec, Social Justice	Hlth policy in global context	Dis Prev & Control	Global Hlth Int'l Affairs
Competencies																						
CC7. <u>Communication</u> : Demonstrate effective communication with and mobilization of individuals, families, groups, communities, and colleagues to improve population and public health.		P			P / R	P			P		P	P				P						
CC8. <u>Policy and Program Planning, Implementation, and Evaluation</u> : Identify program and policy options relevant to population and public health issues, design and implement population and public health programs, and develop appropriate methods of monitoring and evaluation.			R		R			R			P	R					P					
CC9: <u>Core Concepts in Population and Public Health</u> : Explain the history, paradigms, basic theories, concepts, frameworks, and models of population and public health, and as pertinent from local to global levels.		P	R						P		R											

Table 2.6.b.ii - Matrix of Core Competencies: MPH Concentration in Global Health																						
Course Number:	Core MPH Requirements							Concentration Requirements			Select one of....				Select two additional (inclusive of 825 & 826)							
	HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 821	HSCI 822	HSCI 824	HSCI 830	HSCI 804	HSCI 805	HSCI 806	HSCI 825	HSCI 826	HSCI 823	HSCI 828	HSCI 829	HSCI 855	HSCI 870
Course Title:	Biostat I	Principles of Epidemiology	Qualitative and Survey Res Methods	Environ & Occup Hlth	Practicum	Master's Project	Core Concepts & Practice 1	Core Concepts & Practice 2	Problems in Global Health	Globalization and Health	Comparative Health Systems	Health Promotion	Biostat II	Intermed Epi	Demog Analysis	Advocacy & Commun	Prog Planning & Eval	Hlth, Gender, Dev	Hlth Hum Sec, Social Justice	Hlth policy in global context	Dis Prev & Control	Global Hlth Int'l Affairs
Competencies																						
CC10. <i>Systems Thinking</i> : Recognize system level properties that result from <i>dynamic interactions</i> among human and social systems, from local to global, and from cell to society.									P	P	P							R	R	P		P
CC11. <i>Gender, Culture, and Social Location</i> : Explain how gender, culture and diverse markers of social location are related to health outcomes; access to and delivery of health services; and program planning.									P	P	R	P						P	P	R		R
CC12. <i>Health Systems</i> : identify the factors that determine the quality, accessibility, organization, performance, costs, and outcomes of health services for individuals, communities and populations.									R		P							R	R			R

Table 2.6.b.ii - Matrix of Core Competencies: MPH Concentration in Global Health																							
Course Number:	Core MPH Requirements							Concentration Requirements			Select one of....			Select two additional (inclusive of 825 & 826)									
	HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 821	HSCI 822	HSCI 824	HSCI 830	HSCI 804	HSCI 805	HSCI 806	HSCI 825	HSCI 826	HSCI 823	HSCI 828	HSCI 829	HSCI 855	HSCI 870	
Course Title:	Biostat I	Principles of Epidemiology	Qualitative and Survey Res Methods	Environ & Occup Hlth	Practicum	Master's Project	Core Concepts & Practice 1	Core Concepts & Practice 2	Problems in Global Health	Globalization and Health	Comparative Health Systems	Health Promotion	Biostat II	Intermed Epi	Demog Analysis	Advocacy & Commun	Prog Planning & Eval	Hlth, Gender, Dev	Hlth Hum Sec, Social Justice	Hlth policy in global context	Dis Prev & Control	Global Hlth Int'l Affairs	
Competencies																							
GH1: Identify, define, and critically analyze historical, current and emerging issues in global health; identify the major stakeholders and policymakers in global health; the key areas of interest and attributes of the major governmental and nongovernmental organizations involved in global health; and the role that Canada plays in global health.									P	P													
GH2: Identify how global political economic processes have shaped the international public health agenda.									P	P													
GH3: Analyze the role of public and private sectors in promoting public health and providing health services in comparative, global context. Outline the impact of privatization and government restructuring on health outcomes.									P	P	P												

Table 2.6.b.ii - Matrix of Core Competencies: MPH Concentration in Global Health																						
Course Number:	Core MPH Requirements							Concentration Requirements			Select one of....				Select two additional (inclusive of 825 & 826)							
	HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 821	HSCI 822	HSCI 824	HSCI 830	HSCI 804	HSCI 805	HSCI 806	HSCI 825	HSCI 826	HSCI 823	HSCI 828	HSCI 829	HSCI 855	HSCI 870
Course Title:	Biostat I	Principles of Epidemiology	Qualitative and Survey Res Methods	Environ & Occup Hlth	Practicum	Master's Project	Core Concepts & Practice 1	Core Concepts & Practice 2	Problems in Global Health	Globalization and Health	Comparative Health Systems	Health Promotion	Biostat II	Intermed Epi	Demog Analysis	Advocacy & Commun	Prog Planning & Eval	Hlth, Gender, Dev	Hlth Hum Sec, Social Justice	Hlth policy in global context	Dis Prev & Control	Global Hlth Int'l Affairs
Competencies																						
GH4: Explain theories of development in historical and political-economic context and identify the means by which development policies and programs have affected global health inequities.									R	P												
GH5: Comprehend and be able to apply formal and informal ethics, including principles of justice, in global health.									P		P											
GH6: Identify and explain the theories underlying population health promotion as relevant to global contexts, including measures enabling people and communities to increase control over their health and its determinants.									R			P										

Table 2.6.b.ii - Matrix of Core Competencies: MPH Concentration in Global Health																						
Course Number:	Core MPH Requirements							Concentration Requirements			Select one of....			Select two additional (inclusive of 825 & 826)								
	HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 821	HSCI 822	HSCI 824	HSCI 830	HSCI 804	HSCI 805	HSCI 806	HSCI 825	HSCI 826	HSCI 823	HSCI 828	HSCI 829	HSCI 855	HSCI 870
Course Title:	BioStat I	Principles of Epidemiology	Qualitative and Survey Res Methods	Environ & Occup Hlth	Practicum	Master's Project	Core Concepts & Practice 1	Core Concepts & Practice 2	Problems in Global Health	Globalization and Health	Comparative Health Systems	Health Promotion	BioStat II	Intermed Epi	Demog Analysis	Advocacy & Commun	Prog Planning & Eval	Hlth, Gender, Dev	Hlth Hum Sec, Social Justice	Hlth policy in global context	Dis Prev & Control	Global Hlth Int'l Affairs
Competencies																						
GH7: Analyze, critique and problem-solve for links between global health and international finance institutions, multilaterals, international trade organizations, militarization, and humanitarian aid.									R	P												
GH8: Analyze and explain the role of transnational networks and global institutions in the adoption and enforcement of international laws, conventions, agreements, and standards that affect health and safety, including the domains of security, trade, labor, food supply, the environment, pharmaceuticals, international development aid, human rights and conflict.									P	P												

Table 2.6.b.ii - Matrix of Core Competencies: MPH Concentration in Global Health																						
Course Number:	Core MPH Requirements							Concentration Requirements			Select one of....			Select two additional (inclusive of 825 & 826)								
	HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 821	HSCI 822	HSCI 824	HSCI 830	HSCI 804	HSCI 805	HSCI 806	HSCI 825	HSCI 826	HSCI 823	HSCI 828	HSCI 829	HSCI 855	HSCI 870
Course Title:	Biostat I	Principles of Epidemiology	Qualitative and Survey Res Methods	Environ & Occup Hlth	Practicum	Master's Project	Core Concepts & Practice 1	Core Concepts & Practice 2	Problems in Global Health	Globalization and Health	Comparative Health Systems	Health Promotion	Biostat II	Intermed Epi	Demog Analysis	Advocacy & Commun	Prog Planning & Eval	Hlth, Gender, Dev	Hlth Hum Sec, Social Justice	Hlth policy in global context	Dis Prev & Control	Global Hlth Int'l Affairs
Competencies																						
GH9: From an international comparative perspective, explain how methods of financing, provider payment, organization, regulation, historical, and social/cultural factors affect the performance and accessibility of the health system. Evaluate Canada's role with respect to foreign aid, international trade agreements and overseas investment promotion.									R		P											
GH10: Identify the roles played by global political and economic factors, including international/regional trade policies, structural adjustment programs and the role of international institutions such as the World Bank, International Monetary Fund, and the World Trade Organization on the performance and accessibility of health systems.									R	R	P											

Table 2.6.b.iii - Matrix of Core Competencies: MPH Concentration in Population Health																
Course Number:	Core MPH Requirements								Concentration Requirements				Select one of....			
	HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 815	HSCI 827	HSCI 835	HSCI 855	HSCI 804	HSCI 805	HSCI 806	HSCI 825
Course Title:	Biostat I	Principles of Epidemiology	Qualitative and Survey Res Methods	Environ & Occup Hlth	Practicum	Master's Project	Concepts & Practice 2	Concepts & Practice 2	Canadian Hlth Care System	Soc & Behv Context Hlth Dis	Dis Prev & Control	Biostat II	Intermed Epi	Demog Analysis	Advocacy & Commun	Prog Planning & Eval
Competencies																
CC1: <u>Epidemiology</u> : Explain and apply the theories, concepts and methods of descriptive and analytic epidemiologic approaches for improving population and public health and reducing health inequalities from local to global levels.	R	P														
CC2: <u>Biostatistics</u> : Apply statistical reasoning and methods in addressing, analyzing, and solving problems of population and public health.	P	R														
CC3: <u>Methods of Population and Public Health Assessment, Diagnosis, and Analysis</u> : Determine population and public health concerns through analysis and diagnosis of communities and populations using a variety of quantitative and qualitative methodologies.		R	P		R			P								
CC4: <u>Environmental and Occupational Health</u> : Identify the main environmental factors that affect the health of workers and communities, and explain common methods of risk reduction and mitigation.				P							R					

Table 2.6.b.ii - Matrix of Core Competencies: MPH Concentration in Global Health																										
Competencies	Course Title:	Course Number:	Core MPH Requirements					Concentration Requirements			Select one of....			Select two additional (inclusive of 825 & 826)												
			HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 821	HSCI 822	HSCI 824	HSCI 830	HSCI 804	HSCI 805	HSCI 806	HSCI 825	HSCI 826	HSCI 823	HSCI 828	HSCI 829	HSCI 855	HSCI 870		
	Biostat I																									
	Principles of Epidemiology																									
	Qualitative and Survey Res Methods																									
	Environ & Occup Hlth																									
	Practicum																									
	Master's Project																									
	Core Concepts & Practice 1																									
	Core Concepts & Practice 2																									
	Problems in Global Health																									
	Globalization and Health																									
	Comparative Health Systems																									
	Health Promotion																									
	Biostat II																									
	Intermed Epi																									
	Demog Analysis																									
	Advocacy & Commun																									
	Prog Planning & Eval																									
	Hlth, Gender, Dev																									
	Hlth Hum Sec, Social Justice																									
	Hlth policy in global context																									
	Dis Prev & Control																									
	Global Hlth Int'l Affairs																									
CC5. <i>Social Sciences</i> : Explain the basic theories, concepts and models from a range of social and policy sciences that are used in population and public health research and practice.													P													

Table 2.6.b.ii - Matrix of Core Competencies: MPH Concentration in Global Health																										
Competencies	Course Title:	Course Number:	Core MPH Requirements					Concentration Requirements			Select one of....			Select two additional (inclusive of 825 & 826)												
			HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 821	HSCI 822	HSCI 824	HSCI 830	HSCI 804	HSCI 805	HSCI 806	HSCI 825	HSCI 826	HSCI 823	HSCI 828	HSCI 829	HSCI 855	HSCI 870		
<p>CC6. <u>Partnerships, Professionalism, Collaboration and Advocacy</u>: Identify appropriate partners in addressing population and public health issues; identify and analyze ethical considerations in public health programs; and devise appropriate strategies for mobilizing communities around a public health issue.</p>	BioStat I																									
	Principles of Epidemiology																									
	Qualitative and Survey Res Methods																									
	Environ & Occup Hlth																									
	Practicum																									
	Master's Project																									
	Core Concepts & Practice 1																									
	Core Concepts & Practice 2																									
	Problems in Global Health																									
	Globalization and Health																									
	Comparative Health Systems																									
	Health Promotion																									
	BioStat II																									
	Intermed Epi																									
	Demog Analysis																									
	Advocacy & Commun																									
Prog Planning & Eval																										
Hlth, Gender, Dev																										
Hlth Hum Sec, Social Justice																										
Hlth policy in global context																										
Dis Prev & Control																										
Global Hlth Int'l Affairs																										

Table 2.6.b.ii - Matrix of Core Competencies: MPH Concentration in Global Health																								
Competencies	Course Number:	Core MPH Requirements						Concentration Requirements			Select one of....			Select two additional (inclusive of 825 & 826)										
		HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 821	HSCI 822	HSCI 824	HSCI 830	HSCI 804	HSCI 805	HSCI 806	HSCI 825	HSCI 826	HSCI 823	HSCI 828	HSCI 829	HSCI 855	HSCI 870	
Course Title:																								
	Biostat I																							
	Principles of Epidemiology																							
	Qualitative and Survey Res Methods																							
	Environ & Occup Hlth																							
	Practicum																							
	Master's Project																							
	Core Concepts & Practice 1																							
	Core Concepts & Practice 2																							
	Problems in Global Health																							
	Globalization and Health																							
	Comparative Health Systems																							
	Health Promotion																							
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	Intermed Epi																							
	Demog Analysis																							
	Advocacy & Commun																							
	Prog Planning & Eval																							
	Hlth, Gender, Dev																							
	Hlth Hum Sec, Social Justice																							
	Hlth policy in global context																							
	Dis Prev & Control																							
	Global Hlth Int'l Affairs																							
CC7. <i>Communication</i> : Demonstrate effective communication with and mobilization of individuals, families, groups, communities, and colleagues to improve population and public health.		P				P/R		P																
CC8. <i>Policy and Program Planning, Implementation, and Evaluation</i> : Identify program and policy options relevant to population and public health issues, design and implement population and public health programs, and develop appropriate methods of monitoring and evaluation.			R			R			R		P													P

Table 2.6.b.ii - Matrix of Core Competencies: MPH Concentration in Global Health																							
Competencies	Course Number:	Core MPH Requirements							Concentration Requirements			Select one of....			Select two additional (inclusive of 825 & 826)								
		HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 821	HSCI 822	HSCI 824	HSCI 830	HSCI 804	HSCI 805	HSCI 806	HSCI 825	HSCI 826	HSCI 823	HSCI 828	HSCI 829	HSCI 855	HSCI 870
Course Title:	BioStat I	Principles of Epidemiology	Qualitative and Survey Res Methods	Environ & Occup Hlth	Practicum	Master's Project	Core Concepts & Practice 1	Core Concepts & Practice 2	Problems in Global Health	Globalization and Health	Comparative Health Systems	Health Promotion	BioStat II	Intermed Epi	Demog Analysis	Advocacy & Commun	Prog Planning & Eval	Hlth, Gender, Dev	Hlth Hum Sec, Social Justice	Hlth policy in global context	Dis Prev & Control	Global Hlth Int'l Affairs	
CC9: <i>Core Concepts in Population and Public Health</i> : Explain the history, paradigms, basic theories, concepts, frameworks, and models of population and public health, and as pertinent from local to global levels.		P	R							P			R										
CC10. <i>Systems Thinking</i> : Recognize system level properties that result from <i>dynamic interactions</i> among human and social systems, from local to global, and from cell to society.										R	R		P										
CC11. <i>Gender, Culture, and Social Location</i> : Explain how gender, culture and diverse markers of social location are											R		P										

Table 2.6.b.ii - Matrix of Core Competencies: MPH Concentration in Global Health																						
Course Number:	Core MPH Requirements							Concentration Requirements			Select one of....			Select two additional (inclusive of 825 & 826)								
	HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 821	HSCI 822	HSCI 824	HSCI 830	HSCI 804	HSCI 805	HSCI 806	HSCI 825	HSCI 826	HSCI 823	HSCI 828	HSCI 829	HSCI 855	HSCI 870
Course Title:	BioStat I	Principles of Epidemiology	Qualitative and Survey Res Methods	Environ & Occup Hlth Practicum	Master's Project	Core Concepts & Practice 1	Core Concepts & Practice 2	Core Concepts & Practice 3	Problems in Global Health	Globalization and Health	Comparative Health Systems	Health Promotion	BioStat II	Intermed Epi	Demog Analysis	Advocacy & Commun	Prog Planning & Eval	Hlth, Gender, Dev	Hlth Hum Sec, Social Justice	Hlth policy in global context	Dis Prev & Control	Global Hlth Int'l Affairs
Competencies																						
related to health outcomes; access to and delivery of health services; and program planning.																						
CC12. <i>Health Systems</i> : identify the factors that determine the quality, accessibility, organization, performance, costs, and outcomes of health services for individuals, communities and populations.									R		P											

Table 2.6.b.ii - Matrix of Core Competencies: MPH Concentration in Global Health																									
Competencies	Course Title:	Course Number:	Core MPH Requirements					Concentration Requirements			Select one of....			Select two additional (inclusive of 825 & 826)											
			HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 821	HSCI 822	HSCI 824	HSCI 830	HSCI 804	HSCI 805	HSCI 806	HSCI 825	HSCI 826	HSCI 823	HSCI 828	HSCI 829	HSCI 855	HSCI 870	
	Biostat I		Principles of Epidemiology	Qualitative and Survey Res Methods	Environ & Occup Hlth	Practicum	Master's Project	Core Concepts & Practice 1	Core Concepts & Practice 2	Problems in Global Health	Globalization and Health	Comparative Health Systems	Health Promotion	Biostat II	Intermed Epi	Demog Analysis	Advocacy & Commun	Prog Planning & Eval	Hlth, Gender, Dev	Hlth Hum Sec, Social Justice	Hlth policy in global context	Dis Prev & Control	Global Hlth Int'l Affairs		
PH1. Develop additional expertise in methods of population health data collection and analysis, including one or more of the following: demographic methods for public health, epidemiological methods, intermediate biostatistics, and other areas as identified.																		P	P	P					
PH2. Develop additional expertise in areas of population and public health applications, including one or more of the following: health promotion, program planning and evaluation, advocacy and communication, and population health policy.																					P		P		

	Core MPH Requirements							Concentration Requirements			Select one of....			Select two additional (inclusive of 825 & 826)								
Course Number:	HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 821	HSCI 822	HSCI 824	HSCI 830	HSCI 804	HSCI 805	HSCI 806	HSCI 825	HSCI 826	HSCI 823	HSCI 828	HSCI 829	HSCI 855	HSCI 870
Course Title:	Biostat I	Principles of Epidemiology	Qualitative and Survey Res Methods	Environ & Occup Hlth	Practicum	Master's Project	Core Concepts & Practice 1	Core Concepts & Practice 2	Problems in Global Health	Globalization and Health	Comparative Health Systems	Health Promotion	Biostat II	Intermed Epi	Demog Analysis	Advocacy & Commun	Prog Planning & Eval	Hlth, Gender, Dev	Hlth Hum Sec, Social Justice	Hlth policy in global context	Dis Prev & Control	Global Hlth Int'l Affairs
Competencies																						
PH3. Develop a broad approach to population and public health practice by taking additional specialization courses offered in the Faculty.																	P	P	P	P		P

Table 2.6.b.iv - Matrix of Core Competencies: MPH Concentration in Social Inequities and Health																			
Course Number:	Core MPH Requirements								Concentration Requirements					Select one of....		And one of...			
	HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 807	HSCI 815	HSCI 835	HSCI 838	HSCI 839	HSCI 824	HSCI 827	HSCI 822	HSCI 823	HSCI 829	SA 855
Course Title:	Biostat I	Principles of Epidemiology	Qualitative and Survey Res Methods	Environ & Occup Hlth	Practicum	Master's Project	Core Concepts & Practice 1	Core Concepts and Practice 2	Res Hlth Inequities	Concepts & Princ Pop Pub Hlth	Soc & Behv Context Hlth Dis	Theorizing Soc Inequities & Health	Strat for Reducing Soc Ineq Hlth	Comp Hlth Systems	Canadian Hlth System	Globalization Hlth Ineq	Hlth Gender Dev	Hlth Policy-Making Global Context	Adv Quant Meth women's health & policy Canada
Competencies																			
CC1: <i>Epidemiology</i> : Explain and apply the theories, concepts and methods of descriptive and analytic epidemiologic approaches for improving population and public health and reducing health inequalities from local to global levels.	R	P							R										
CC2: <i>Biostatistics</i> : Apply statistical reasoning and methods in addressing, analyzing, and solving problems of population and public health.	P	R																	P
CC3: <i>Methods of Population and Public Health Assessment, Diagnosis, and Analysis</i> : Determine population and public health concerns through analysis and diagnosis of communities and populations using a variety of quantitative and qualitative methodologies.		R	P		R				P					P					
CC4: <i>Environmental and Occupational Health</i> : Identify the main environmental factors that affect the health of workers and communities, and explain common methods of risk reduction and mitigation.				P															

Table 2.6.b.iv - Matrix of Core Competencies: MPH Concentration in Social Inequities and Health																				
Course Number:	Core MPH Requirements								Concentration Requirements					Select one of....		And one of...				
	HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 807	HSCI 815	HSCI 835	HSCI 838	HSCI 839	HSCI 824	HSCI 827	HSCI 822	HSCI 823	HSCI 829	SA 855	HSCI 891
Course Title:	Biostat I	Principles of Epidemiology	Qualitative and Survey Res Methods	Environ & Occup Hlth	Practicum	Master's Project	Core Concepts & Practice 1	Core Concepts and Practice 2	Res Hlth Inequities	Concepts & Princ Pop Pub Hlth	Soc & Behv Context Hlth Dis	Theorizing Soc Inequities & Health	Strat for Reducing Soc Ineq Hlth	Comp Hlth Systems	Canadian Hlth System	Globalization Hlth Ineq	Hlth Gender Dev	Hlth Policy-Making Global Context	Adv Quant Meth women's hlth & policy Canada	
Competencies																				
CC5. <u>Social Sciences</u> : Explain the basic theories, concepts and models from a range of social and policy sciences that are used in population and public health research and practice.										P				P	P	P	P	P	P	
CC6. <u>Partnerships, Professionalism, Collaboration and Advocacy</u> : Identify appropriate partners in addressing population and public health issues; identify and analyze ethical considerations in public health programs; and devise appropriate strategies for mobilizing communities around a public health issue.					P					P	R		P							
CC7. <u>Communication</u> : Demonstrate effective communication with and mobilization of individuals, families, groups, communities, and colleagues to improve population and public health.		P			P/R	P				P				P	P					

Table 2.6.b.iv - Matrix of Core Competencies: MPH Concentration in Social Inequities and Health																				
Course Number:	Core MPH Requirements								Concentration Requirements					Select one of....		And one of...				
	HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 807	HSCI 815	HSCI 835	HSCI 838	HSCI 839	HSCI 824	HSCI 827	HSCI 822	HSCI 823	HSCI 829	SA 855	HSCI 891
Course Title:	Biostat I	Principles of Epidemiology	Qualitative and Survey Res Methods	Environ & Occup Hlth	Practicum	Master's Project	Core Concepts & Practice 1	Core Concepts and Practice 2	Res Hlth Inequities	Concepts & Princ Pop Pub Hlth	Soc & Behv Context Hlth Dis	Theorizing Soc Inequities & Health	Strat for Reducing Soc Ineq Hlth	Comp Hlth Systems	Canadian Hlth System	Globalization Hlth Ineq	Hlth Gender Dev	Hlth Policy-Making Global Contex	Adv Quant Meth women's health & policy	Canada
Competencies																				
CC8. <u>Policy and Program Planning, Implementation, and Evaluation:</u> Identify program and policy options relevant to population and public health issues, design and implement population and public health programs, and develop appropriate methods of monitoring and evaluation.			R		R			R		P			P	P	R			P		
CC9. <u>Core Concepts in Population and Public Health:</u> Explain the history, paradigms, basic theories, concepts, frameworks, and models of population and public health, and as pertinent from local to global levels.		P	R							P	R			R						
CC10. <u>Systems Thinking:</u> Recognize system level properties that result from <i>dynamic interactions</i> among human and social systems, from local to global, and from cell to society.									P	R	P	P		P	P	P	P	P		R
CC11. <u>Gender, Culture, and Social Location:</u> Explain how gender, culture and diverse markers of social location are related to health outcomes; access to and delivery of health services; and program planning.									P		P	P	P	R	R	P	P	R		P

Table 2.6.b.iv - Matrix of Core Competencies: MPH Concentration in Social Inequities and Health																				
Course Number:	Core MPH Requirements								Concentration Requirements					Select one of....		And one of...				
	HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 807	HSCI 815	HSCI 835	HSCI 838	HSCI 839	HSCI 824	HSCI 827	HSCI 822	HSCI 823	HSCI 829	SA 855	HSCI 891
Course Title:	Biostat I	Principles of Epidemiology	Qualitative and Survey Res Methods	Environ & Occup Hlth	Practicum	Master's Project	Core Concepts & Practice 1	Core Concepts and Practice 2	Res Hlth Inequities	Concepts & Princ Pop Pub Hlth	Soc & Behv Context Hlth Dis	Theorizing Soc Inequities & Health	Strat for Reducing Soc Ineq Hlth	Comp Hlth Systems	Canadian Hlth System	Globalization Hlth Ineq	Hlth Gender Dev	Hlth Policy-Making Global Contex	Adv Quant Meth women's health & policy	Canada
Competencies																				
CC12. <i>Health Systems</i> : identify the factors that determine the quality, accessibility, organization, performance, costs, and outcomes of health services for individuals, communities and populations.										R	R			P	P		R	R		R
SIH1. Critically assess theories that explain constructions of gender and sex, race and ethnicity, social class, and other markers of social location with attention to their intersections, historical and contemporary contexts, and relationships to health equity.					R	P			R		R	P	R	R	R	R	P			R
SIH2. Identify frameworks and theories that shape the conceptualization and implementation of research and practice addressing health inequities.		R			R	P			P			P	P	P	P	P	R		R	R
SIH3. Engage in self-reflection about one's own social position relative to others and discuss implications of one's positionality for research and practice addressing health inequities.			R		R	R			R			P	P			R	R	R		R

Table 2.6.b.iv - Matrix of Core Competencies: MPH Concentration in Social Inequities and Health																				
Course Number:	Core MPH Requirements								Concentration Requirements					Select one of....		And one of...				
	HSCI 801	HSCI 802	HSCI 803	HSCI 845	HSCI 880	HSCI 897	HSCI 900	HSCI 901	HSCI 807	HSCI 815	HSCI 835	HSCI 838	HSCI 839	HSCI 824	HSCI 827	HSCI 822	HSCI 823	HSCI 829	SA 855	HSCI 891
Course Title:	Biostat I	Principles of Epidemiology	Qualitative and Survey Res Methods	Environ & Occup Hlth	Practicum	Master's Project	Core Concepts & Practice 1	Core Concepts and Practice 2	Res Hlth Inequities	Concepts & Princ Pop Pub Hlth	Soc & Behv Context Hlth Dis	Theorizing Soc Inequities & Health	Strat for Reducing Soc Ineq Hlth	Comp Hlth Systems	Canadian Hlth System	Globalization Hlth Ineq	Hlth Gender Dev	Hlth Policy-Making Global Context	Adv Quant Meth women's health & policy Canada	
Competencies																				
SIH4. Critically assess the strengths, limitations and issues pertinent to the application of quantitative and qualitative study designs, methods and approaches used in research on health inequities.		P	R			R			P			R	R				R		P	
SIH5. Discuss ethical issues pertinent to research on health inequities in diverse populations including the politics of research and how study findings represent and impact the populations studied.			R		R	R			P			R	R	P		P	R	R	R	R
SIH6. Compare and contrast a range of policy, intervention and practice approaches, strategies and techniques for addressing social and structural change to promote health equity.												P	R							
SIH7. Discuss strategies for addressing the politics of practice aimed at promoting health equity.					R	P				R		R	P	R	P	P	P	P		R
SIH8. Critically apply evidence to inform policy and practice initiatives aimed at promoting health equity.		P	R		R	P			P			R	P		P		P	P		

Specialty Area Competencies

2.6.d Identification of a set of competencies for each specialty area identified in the instructional matrix, including professional and academic degree curricula.

Table 2.6.c.i – Core Competencies Specific to the MPH Concentration in Environmental and Occupational Health
EOHC1. Identify route(s) of and factors that influence exposure of humans to environmental toxicants and apply to formulating appropriate exposure reduction strategies.
EOHC2. Demonstrate the ability to provide an overview of the molecular and genetic mechanisms involved in response to environmental contaminants with the use of examples from modern primary sources.
EOHC3. Describe the advantages and disadvantages of measurements and models for assessing exposure in epidemiology and risk assessment and, based on this assessment, design appropriate exposure assessment strategies for various pollutants, routes of exposure, and exposure scenarios.
EOHC4. Describe the main steps in environmental risk assessment, be able to apply these steps to a number of risk situations, and identify the strengths and weaknesses of current approaches to risk assessment.
EOHC5. Be able to present and defend findings with the support of external or internal evidence and to assess validity and quality of experimental endpoints.

Table 2.6.c.ii – Core Competencies Specific to the MPH Concentration in Global Health
GH1: Identify, define, and critically analyze historical, current and emerging issues in global health; identify the major stakeholders and policymakers in global health; the key areas of interest and attributes of the major governmental and nongovernmental organizations involved in global health; and the role that Canada plays in global health.
GH2: Identify how global political economic processes have shaped the international public health agenda.
GH3: Analyze the role of public and private sectors in promoting public health and providing health services in comparative, global context. Outline the impact of privatization and government restructuring on health outcomes.
GH4: Explain theories of development in historical and political-economic context and identify the means by which development policies and programs have affected global health inequities.
GH5: Comprehend and be able to apply formal and informal ethics, including principles of justice, in global health.
GH6: Identify and explain the theories underlying population health promotion as relevant to global contexts, including measures enabling people and communities to increase control over their health and its determinants.
GH7: Analyze, critique and problem-solve for links between global health and international finance institutions, multilaterals, international trade organizations, militarization, and humanitarian aid.
GH8: Analyze and explain the role of transnational networks and global institutions in the adoption and enforcement of international laws, conventions, agreements, and standards that affect health and safety, including the domains of security, trade, labor, food supply, the environment, pharmaceuticals, international development aid, human rights and conflict.

GH9: From an international comparative perspective, explain how methods of financing, provider payment, organization, regulation, historical, and social/cultural factors affect the performance and accessibility of the health system. Evaluate Canada's role with respect to foreign aid, international trade agreements and overseas investment promotion.
GH10: Identify the roles played by global political and economic factors, including international/regional trade policies, structural adjustment programs and the role of international institutions such as the World Bank, International Monetary Fund, and the World Trade Organization on the performance and accessibility of health systems.

Table 2.6.c.iii – Core Competencies Specific to the MPH Concentration in Population Health
PH1. Develop additional expertise in methods of population health data collection and analysis, including one or more of the following: demographic methods for public health, epidemiological methods, intermediate biostatistics, and other areas as identified.
PH2. Develop additional expertise in areas of population and public health applications, including one or more of the following: health promotion, program planning and evaluation, advocacy and communication, and population health policy.
PH3. Develop a broad approach to population and public health practice by taking additional specialization courses offered in the Faculty.

Table 2.6.c.iv – Core Competencies Specific to the MPH Concentration in Social Inequities and Health
SIH1. Critically assess theories that explain constructions of gender and sex, race and ethnicity, social class, and other markers of social location with attention to their intersections, historical and contemporary contexts, and relationships to health equity.
SIH2. Identify frameworks and theories that shape the conceptualization and implementation of research and practice addressing health inequities.
SIH3. Engage in self-reflection about one's own social position relative to others and discuss implications of one's positionality for research and practice addressing health inequities.
SIH4. Critically assess the strengths, limitations and issues pertinent to the application of study designs, methods and approaches used in research on health inequities.
SIH5. Discuss ethical issues pertinent to research on health inequities in diverse populations including the politics of research and how study findings represent and impact the populations studied.
SIH6. Compare and contrast a range of policy, intervention and practice approaches, strategies and techniques for addressing social and structural change to promote health equity.
SIH7. Discuss strategies for addressing the politics of practice aimed at promoting health equity.
SIH8. Critically apply evidence to inform policy and practice initiatives aimed at promoting health equity.

Competency Development Process, Use and Availability

2.6.e A description of the manner in which competencies are developed, used and made available to students.

Process Used to Develop the MPH Core Competencies

The structure and content of our core competencies were approved by the Faculty Executive Committee on April 2, 2009. Subsequent to a consultation visit from CEPH on April 17, 2009, we further revised the core competencies, “rolling them up” into program-level statements. The core competencies have been posted to the FHS website since October 2008 so that students interested in applying for our MPH program appreciate the goals of the program. The core competencies are emphasized for students during their orientation to the Public Health program and are revisited in detail during practicum planning (for their reference in developing the learning objectives for their practicum experience). This is followed up with detailed reflections during and after the practicum to help identify and define learning areas to inform choices of final course offerings and the culminating capstone project. Students also engage the competencies in each of their course syllabi where primary and reinforcing competencies, mapped to learning objectives, are emphasized. In addition, we highlight the competencies for practicum preceptors to assist mentorship of students during this learning experience.

Our current assessment of the approach we took to blend the Public Health Agency of Canada (PHAC) and ASPH competency statements confirms our view that these are framed at very different levels of specificity and are intended for different practice contexts. PHAC competencies are oriented principally to the needs for successful professional practice, and are contextualized within the workplace domain (i.e., many refer to organizational and community-based experiences and practices which a student would not likely have had). As an educational program, we can familiarize and prepare, but we cannot necessarily provide the experiential component of the core competencies that is specified by PHAC beyond what might be an outcome of a 13-week practicum and service-learning experiences that are integrated into specific courses. The ASPH document, on the other hand, tends to emphasize classroom-based training in specific content areas. Further, while PHAC frames skills and abilities in terms of integration of knowledge, processes of evidence appraisal, data collection, and application, and higher-level needs for culturally-sensitive and ethically-based practice and leadership, the ASPH core competencies are positioned closer to course-specific learning objectives, though their “cross-cutting” competencies tend to merge with PHAC’s in key areas (e.g., ethical practice).

We continue to believe that it is important to adhere to the greatest extent possible to the Canadian standards for population and public health practice, and so endorse, in principle, application of the PHAC core competencies to the Public Health programs in the FHS at SFU. Secondly, where the PHAC competencies are deemed to lack specificity, especially with regards to the more academic features of public health training (i.e., the core disciplines of population and public health), we believe we have been able to draw profitably on the ASPH core competencies.

Process Used to Develop the BA/BSc Core Competencies

Undergraduate core competencies were developed by the Undergraduate Studies Committee over the 2008/2009 academic year. After reviewing the core competencies for several other undergraduate programs, the committee elected to adapt the graduate level competencies to the undergraduate program. The core competencies were ratified by the Faculty Executive on April 2, 2009. The core competencies in the undergraduate program are listed in course syllabi and reviewed by the Undergraduate Studies Committee for new courses or course changes. In 2010, the FHS redeveloped the BSc major into two streams (concentrations) (Life Sciences and Population & Quantitative Health Sciences), which obviated the need for more specific competencies since these concentrations are more broadly defined than the three previous concentrations (General Studies, Environmental & Occupational Health, and Infectious Diseases).

Assessment of Public Health Practice Needs

2.6.f Description of the manner in which the program periodically assesses the changing needs of public health practice and uses this information to establish the competencies for its educational programs.

Currency of the core competencies is maintained by the following four practices and processes:

First, as described in our evaluation plan (section 1.2 of this self-study), we assess student preparedness and performance in practice settings (i.e., the practicum experience). These assessment are reviewed by the MPH Committee, and if necessary, action. This committee may recommend changes to the core competencies, or changes to program curriculum.

Second, surveys of alumni are conducted to assess whether their training in the Public Health program at SFU provided them with the appropriate skills and knowledge to perform their current duties (for those employed in population and public health settings). Again, these assessments are reviewed by the MPH Committee for graduates of the Master's Degree in Public Health or by the Undergraduate Studies for BA and BSc students for possible action.

Third, we have created an external MPH advisory committee for the Faculty. Membership on this committee includes practicum preceptors from various domains of public health practice in the NGO and governmental sectors; representatives from BC Regional Health Authorities and the Ministry of Health; and representatives from our sister public health tertiary institutions in BC. This committee is a sounding board to the MPH the program and will help to review the currency of the core competencies.

Fourth, most of our faculty members are involved in national and international organizations in public health. Thus FHS is exposed to and is able to assess emerging trends in the fields of public health in which we offer specialized training. A number of our faculty are members of, and regularly attend meetings of, the American Public Health Association, the Canadian Public Health Association (CPHA), the Public Health Agency of BC (PHABC) and the BC Health Officer's Council (BCHOC). As part of the CPHA, the various Canadian schools and programs of public health meet to share experiences and review curriculum approaches. The Network of Schools and Programs of Public Health (NSPPPH) have very recently established a work group to review core competencies (Core Competencies and MPH Guidelines). FHS is a member of this working group. Global health faculty are involved in other, relevant professional organizations, such as the Canadian Coalition for Global Health Research, and the Global Health Council. In these contexts faculty members are exposed to emerging trends in the different fields of public health.

Criterion Assessment

2.6.g Assessment of the extent to which this criterion is met.

Strengths

- Core competencies have been developed and are clearly stated for the MPH degree program and the concentrations. These competencies have been mapped to learning objectives for all courses offered in the program. The FHS actively participates in national and regional forums in which public health competencies are reviewed and has put in place a variety of assessment and evaluation procedures to ensure that the core competencies are relevant and are kept up-to-date.

Weaknesses

- The MPH degree is still a relatively new qualification in the Canadian public health environment and remains an uncertified training in Canada. This requires more focused and ongoing discussion about core competencies than might be the case in the US environment in which certified MPH trainees can present credentials that are more easily engaged by the practice environment. This requires ongoing discussions between public health practice and the MPH program to ensure that our competency statements and the

learning objectives associated with these competencies are valued and lead to uptake into the public health workforce.

Plans

- Engagement with the practice environment through the opportunities mentioned above will be sustained and strengthened.
- An MPH Advisory Committee, comprised of representatives from public health practice, our sister training institutions and the Ministry of Health, was recently established to help strengthen the saliency of our competency areas and recommend how these can be profiled to the practice environment.

This Criterion is met.

CRITERION 2.7 – ASSESSMENT PROCEDURES

There shall be procedures for assessing and documenting the extent to which each student has demonstrated competence in the required areas of performance.

Monitoring and Evaluation of Student Progress

2.7.a Description of the procedures used for monitoring and evaluating student progress in achieving the expected competencies.

The FHS Public Health programs have developed a strategic review framework for evaluating student progress in achieving the curricular competencies set out under Criterion 2.6 above. This framework consists of the following evaluative tools for individual achievement:

Successful Completion of Required Courses

As required by the academic standards of SFU, all undergraduate students in the baccalaureate public health programs must maintain a good academic standing consisting of a minimum cumulative grade point average (CGPA) of 2.0 out of 4.33. Students in the Master's Degree in Public Health programs must maintain a cumulative grade point average (CGPA) of 3.0 out of 4.33. As course curriculum is derived directly from the Public Health programs' mission, goals, objectives, and learning competencies, achieving high academic performance is taken as one indication that Public Health program participants are acquiring the core curricular competencies, knowledge, and understanding of the five core disciplines of public health.

Successful Completion of Practicum Experiences

A second strategy used by the Public Health programs to ensure that students achieve core learning competencies is a multifaceted, multi-party review process of the Practicum experience. The Practicum experience is reviewed by the Student, the Preceptor, the Senior Supervisor, and the Director of Public Health Practice. Prior to the Practicum, each student's Practicum Plan is reviewed by the Senior Supervisor, the Practicum Coordinator, the Director of Public Health Practice, the Graduate Program Chair, and the Practicum site Preceptor. The Practicum experience is reviewed regularly throughout the Practicum term by the Senior Supervisor, Practicum Coordinator, and the Director of Public Health Practice through bi-weekly progress reports submitted by the student, as well as by both midway review and a culminating review submitted by the Preceptor. Students produce practicum deliverables, based on measurable objectives stated in the Practicum Plan that affirm achievement of selected core competencies and learning goals defined at the beginning of the practicum. Through a final public poster presentation, students further demonstrate that they have achieved measurable objectives linked to selected core competencies and attained their learning goals. Samples of student poster presentations are available in 'Resource not listed in Chapters' folder called Samples of Students' Work.

Successful Completion of Culminating Experience

Designed as one of the MPH program's core mechanisms to have students demonstrate that they are able to synthesize and integrate knowledge acquired in coursework and other learning experiences and to apply theory and principles in a situation that approximates aspects of professional practice, the culminating experience is a critically important component to our ability to assess whether the student has mastered a body of knowledge and can demonstrate proficiency in the required public health knowledge competencies. The culminating experience takes the form of Master's Project or Master's Thesis. Full details of the review process for the culminating experiences are provided under Criterion 2.5 above.

Student Achievement Outcomes

2.7.b Identification of outcomes that serve as measures by which the program will evaluate student achievement in each degree program, and presentation of data assessing the program's performance against those measures for each of the last three years.

The FHS at SFU has developed a series of key outcome measures by which each level of Public Health program (graduate and undergraduate) will evaluate student achievement. These outcomes are derived directly from the mission, goals and objectives governing the Public Health programs. Additional outcome measures directly related to the specific programs' objectives for student enrolment, student participation in research and other areas of student activity, are outlined in the corresponding criterion later in this self-study report.

Outcome measures in Table 2.7.b.i below are derived from the following overarching objectives for student achievement at the Master's Level:

1. Student academic performance will be of the highest level.
2. Students will be provided with training in the core knowledge, functions and strategies of population and public health.
3. Students will receive high-quality practicum experiences in appropriate public health settings in order to facilitate the integration of theory, methods and practice relevant to population and public health strategies.
4. Students will complete a culminating experience in the form of a Master's Project or Thesis that demonstrates their ability to integrate competencies across multiple public health disciplines to address a population and public health problem.
5. Students engaging in a Master's Thesis will be equipped with the mentorship, knowledge and ability to make new insights in the field of public health research.
6. Graduates of the Master's Degree in Public Health will be equipped with the knowledge and competencies to influence the factors that shape population and public health at local to global levels.
7. Graduates of the Master's Degree in Public Health will express overall satisfaction with their program of study and their overall learning experience.

Table 2.7.b.i – Student Achievement Outcomes by Public Health Program Level – Masters of Public Health					
Student Achievement Outcomes - MPH					
Objective	Outcome Measure	Target	2011/12	2012/13	2013/14
Student academic performance will be of the highest level	Assessment of course grades and grading distributions	90% of students will achieve an overall CGPA of A-	96%	91%	92%
Student academic performance will be of the highest level	Proportion of students who complete their degree in the expected degree completion timeframe ^a	80% graduation rate	94.4% (6 yr) 75.5% (2 yr)	90% (6 yr) 70.2% (2 yr)	92.7% (6 yr) 66.7% (2 yr)
Student academic performance will be of the highest level	Average semesters to complete ^b	7	6.5	7.0	7.1

Table 2.7.b.i – Student Achievement Outcomes by Public Health Program Level – Masters of Public Health					
Student Achievement Outcomes - MPH					
Objective	Outcome Measure	Target	2011/12	2012/13	2013/14
Students will be provided with training in the core knowledge, functions and strategies of population and public health.	Graduates self-assessments of achievement in core competencies in exit surveys ^c	75% of students will report having achieved program core competencies at a satisfactory level	92% > 3 59% >4	98% > 3 43% >4	I/P
Graduates of the Master’s Degree in Public Health will be equipped with the knowledge and competencies to influence the factors that shape population and public health at local to global levels	Graduates self-assessment of achievement in stream-specific core competencies in exit surveys ^c	At least 60% in each stream will report that they achieved the necessary competencies in their specialty area	GH 100% >3 87% >4	100% >3 48% >4	IP
			PH 100% >3 78% >4	90% >3 50% >4	IP
			EOH 100% >3 100% > 4	100% >3 80% >4	IP
			SIH N/A	100% >3 100% > 4	IP
Graduates of the Master’s Degree in Public Health will express overall satisfaction with their program of study and learning experience	Proportion of graduates who report “very” or “somewhat” satisfied with their overall program of study and learning experience in exit surveys ^c	At least 70% will report that they are at least satisfied with their overall program of study and learning experience	52%	67%	IP
Students will have high-quality practicum experiences in appropriate public health settings in order to facilitate the integration of theory, methods and practice relevant to population and public health strategies	Preceptors evaluation of the degree to which students attained competencies during practicum	New measure starting 2014/15	n/a	n/a	n/a

Table 2.7.b.i – Student Achievement Outcomes by Public Health Program Level – Masters of Public Health					
Student Achievement Outcomes - MPH					
Objective	Outcome Measure	Target	2011/12	2012/13	2013/14
Students will have high-quality practicum experiences in appropriate public health settings in order to facilitate the integration of theory, methods and practice relevant to population and public health strategies	Students evaluation of practicum experience (Practicum Debrief Survey)	80% of students reported that they met their practicum learning objectives	N/A	N/A	94%
Students will have high-quality practicum experiences in appropriate public health settings in order to facilitate the integration of theory, methods and practice relevant to population and public health strategies	Students evaluation of practicum experience (Practicum Debrief Survey)	80% of students would recommend their practicum site to future students	N/A	N/A	90%
Students will complete a culminating experience in the form of a Master's Project or Thesis that demonstrates their ability to integrate competencies across multiple public health disciplines to address a population and public health problem.	Evaluation of Master's Projects / Thesis by supervisors, external evaluators, and the chair ^d	Master's Projects are judged to meet learning objectives at least at a satisfactory level on key measures 85% of the time	Key Measures Discuss public health problem within the context of public health practice and /or policy in Canada or globally = 95% Critically review the research literature of relevance to the topic = 87% Analyze and interpret findings and draw appropriate conclusions and recommendations for policy/and or practice = 90%		
Graduates of the Master's Degree in Public Health will be equipped with the knowledge and competencies to influence the factors that shape population and public health at local to global levels	Proportion of graduates employed 1 year after graduation ^e	80%	86% data was available for 61% of graduates	86% data was available for 62% of graduates	64% data was available for 53 % of graduates. Only 8 months post-graduation

Table 2.7.b.i – Student Achievement Outcomes by Public Health Program Level – Masters of Public Health					
Student Achievement Outcomes - MPH					
Objective	Outcome Measure	Target	2011/12	2012/13	2013/14
Graduates of the Master’s Degree in Public Health will be equipped with the knowledge and competencies to influence the factors that shape population and public health at local to global levels	Among graduates who are employed, the proportion employed in population and public health positions ^c	80%	92%	83%	90%

^a Data are provided for two graduation timelines, 2 years and 6 years which is the maximum time to graduate.

^b Note that the average semesters to complete is an average over 3 years. For example, Year 11/12 is the average number of semesters from 2009 to 2012.

^c Graduates exit survey analysis. Data for 2013/14 entry cohort are in progress. Based on ratings of 3 and above on a scale of 1 to 5 with 5 being the highest.

^d Capstone Assessment Tool. Data are cumulative for all completed assessments and not annualized.

^e Data reported in each year is for previous years graduates i.e. data reported for 2011/12 is for the 2010/11 graduating year. Non-respondents not included in percentages.

Outcome measures in Table 2.7.b.ii below are derived from the following overarching objectives for student achievement at the Baccalaureate Level:

1. Student academic performance will be of the highest level.
2. Students will be provided with training in the core knowledge, functions and strategies of population and public health.
3. Graduates of the Baccalaureate level Health Sciences programs will be equipped with the knowledge and competencies relevant to make a contribution to health at local to global levels.
4. Graduates of the Baccalaureate level Health Sciences programs will be inspired to continue their academic training and pursue advanced study graduate Health Sciences program.
5. Graduates of the Baccalaureate level Health Sciences programs will express overall satisfaction with their program of study and overall learning experience.

Table 2.7.b.ii - Student Achievement Outcomes – Baccalaureate Level Public Health Programs (BA, BSc)					
Student Achievement Outcomes – BA and BSc Degrees in Health Sciences					
Objective	Outcome Measure	Target	2011/12	2012/13	2013/14
Student academic performance will be of the highest level	Assessment of course grades and grading distributions	100% of students will achieve an overall CGPA of C or better	100%	100%	100%
Student academic performance will be of the highest level	Proportion of students placed on Academic Probation	At or below the SFU annual average for students placed on academic probation	7% SFU 9.6%	16.5% SFU 14%	23% SFU 18%
Student academic performance will be of the highest level	Proportion of students who complete their degree in the expected	Graduation rate at or above SFU graduation rates for all programs BA 4 yr grad	36%	48% 67% IP	27% IP IP

Table 2.7.b.ii - Student Achievement Outcomes – Baccalaureate Level Public Health Programs (BA, BSc)

Student Achievement Outcomes – BA and BSc Degrees in Health Sciences					
Objective	Outcome Measure	Target	2011/12	2012/13	2013/14
	degree completion timeframe ^a	BA 5 yr grad BA 6 yr grad BSc 4 yr grad BSc 5 yr grad BSc 6 yr grad SFU 4 yr grad SFU 5 yr grad SFU 6 yr grad	52% 57% 43% 57% 61% 26% 45% 58%	37% 52% IP 28% 47% IP	31% IP IP 28% IP IP
Graduates of the Baccalaureate level Health Sciences programs will be inspired to continue their academic training and pursue advanced study in an accredited Masters of Public Health program	Proportion of Baccalaureate level Health Sciences program students who intend to continue their academic training in a relevant Health Sciences graduate program in the next 5 years	New measure starting 2014/15 (data to be collected through exit surveys)	N/A	N/A	N/A
Graduate of the Baccalaureate level Health Sciences programs will report overall satisfaction with their program of study and learning experience	Proportion of graduates who report “very satisfied” or “satisfied” with their overall program of study and learning experience ^b	At least 70%	52%	67%	IP

^aData Source: Graduation matrix from IRP.

^bData Source: SFU Undergrad Student Survey Fall 2011, 2012, 2013 (HSCI).

Degree Completion

2.7.1 Graduation Rates for the Public Health Program.

MPH DEGREE COMPLETION

As noted in Table 2.7.1 below, and presented earlier as part of the student achievement outcome measures, 2 year graduation rates for MPH students in the previous 3 academic years were 75%, 70% and 66%. The six year graduation rates (the Maximum Time to Graduate) were 94%, 90% and 93% respectively. It is important to note that the two year graduates rates include students in the thesis option. These students on average take an additional 2-3 semester to complete their degree. This must be considered when reviewing the graduation rates.

	Cohort of students	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
2005/06	# Students entered / continuing at beginning of this school year	18								
	# Students withdrew, dropped, etc.	1								
	# Students graduated	0								
	Cumulative graduation rate	0.0%								
2006/07	# Students entered / continuing at beginning of this school year	17	40							
	# Students withdrew, dropped, etc.	0	1							
	# Students graduated	14	0							
	Cumulative graduation rate	77.8%	0.0%							
2007/08	# Students entered / continuing at beginning of this school year	3	39	55						
	# Students withdrew, dropped, etc.	0	1	1						
	# Students graduated	0	24	0						
	Cumulative graduation rate	77.8%	60.0%	0.0%						
2008/09	# Students entered / continuing at beginning of this school year	3	14	54	62					
	# Students withdrew, dropped, etc.	0	0	0	2					

	# Students graduated	2	6	28	0					
	Cumulative graduation rate	88.9%	75.0%	50.9%	0.0%					
2009/10	# Students entered / continuing at beginning of this school year	1	8	26	60	53				
	# Students withdrew, dropped, etc.	0	0	1	4	4				
	# Students graduated	1	5	15	23	0				
	Cumulative graduation rate	94.4%	87.5%	78.2%	37.1%	0.0%				
2010/11	# Students entered / continuing at beginning of this school year		3	10	33	49	47			
	# Students withdrew, dropped, etc.		2	1	0	1	4			
	# Students graduated		0	3	20	26	0			
	Cumulative graduation rate	94.4%	87.5%	83.6%	69.4%	49.1%	0.0%			
2011/12	# Students entered / continuing at beginning of this school year		1	6	13	22	43	54		
	# Students withdrew, dropped, etc.		0	0	0	1	2	4		
	# Students graduated		1	3	7	14	22	0		
	Cumulative graduation rate	94.4%	90.0%	89.1%	80.6%	75.5%	46.8%	0.0%		
2012/13	# Students entered / continuing at beginning of this school year			3	6	7	19	50	50	
	# Students withdrew, dropped, etc.			0	1	0	0	3	0	
	# Students graduated			0	3	4	11	24	0	
	Cumulative graduation rate	94.4%	90.0%	89.1%	85.5%	83.0%	70.2%	44.4%	0.0%	
2013/14	# Students entered / continuing at beginning of this school year			3	2	3	8	23	50	38
	# Students withdrew, dropped, etc.			0	0	0	0	1	0	0
	# Students graduated			2	1	0	4	12	27	0
	Cumulative graduation rate	94.4%	90.0%	92.7%	87.1%	83.0%	78.7%	66.7%	54.0%	0.0%

Notes:										
a) Data includes students in the following programs:										
Master of Public Health										
Master of Science in Population and Public Health (including Special Arrangements)										
Master of Arts in Global Health (students in this program later transferred to MScPPH)										
b) Students who transferred into the MPH from the graduate diploma program are included in the data. (8 students total)										
The cohort is based on the start date of the diploma program.										
c) Students who transferred from the MPH to the Health Sciences MSc program are excluded from the data. (7 students total)										
d) In this report, year is defined as the academic year, which consists of the fall, spring and summer terms.										
e) The cohort is based on the first term the student enrolled in classes. Students who were admitted but withdrew before the										
end of the third week of classes in the first term are excluded.										
f) Year of withdrawal is based on the date the program was discontinued in SIMS.										
g) Year of graduation is based on the completion term of the program, rather than the date of convocation.										

BA AND BSC DEGREE COMPLETION

**Table 2.7.b.ii:
Students in BA Degree in HSCI, By Cohort, Entering Between 2007/08 and 2013/14**

		Cohort of Students							
Follow-up Year		2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
2006/07	# Students entered	183							
	# Students withdrew, dropped, etc.	5							
	# Students graduated	0							
	Cumulative graduation rate	0.0%							
2007/08	# Students entered	178	206						
	# Students withdrew, dropped, etc.	17	3						
	# Students graduated	0	0						
	Cumulative graduation rate	0.0%	0.0%						
2008/09	# Students continuing at beginning of this school year	161	203	173					
	# Students withdrew, dropped, etc.	18	24	3					
	# Students graduated	11	1	0					
	Cumulative graduation rate	6.0%	0.5%	0.0%					
2009/10	# Students continuing at beginning of this school year	132	178	170	295				
	# Students withdrew, dropped, etc.	9	20	11	12				
	# Students graduated	42	3	2	0				
	Cumulative graduation rate	29.0%	1.9%	1.2%	0.0%				
2010/11	# Students continuing at beginning of this school year	81	155	157	283	143			
	# Students withdrew, dropped, etc.	11	16	17	45	3			
	# Students graduated	22	16	8	1	0			
	Cumulative graduation rate	41.0%	9.7%	5.8%	0.3%	0.0%			
2011/12	# Students continuing at beginning of this school year	48	123	132	237	140	120		
	# Students withdrew, dropped, etc.	5	4	6	43	15	2		
	# Students graduated	21	54	30	4	0	0		
	Cumulative graduation rate	52.5%	35.9%	23.1%	1.7%	0.0%	0.0%		

2012/13	# Students continuing at beginning of this school year	22	65	96	190	125	118	106	
	# Students withdrew, dropped, etc.	2	8	4	24	25	10	5	
	# Students graduated	6	33	43	23	4	3	0	
	Cumulative graduation rate	55.7%	51.9%	48.0%	9.5%	2.8%	2.5%	0.0%	
2013/14	# Students continuing at beginning of this school year	14	24	49	143	96	105	101	136
	# Students withdrew, dropped, etc.	0	2	0	23	7	15	16	2
	# Students graduated	3	11	34	52	24	13	1	0
	Cumulative graduation rate	57.4%	57.3%	67.6%	27.1%	19.6%	13.3%	0.9%	0.0%

**Table 2.7.b.iii:
Students in BSc Degree in HSCI, By Cohort, Entering Between 2007/08 and 2013/14**

		Cohort of Students							
Follow-up Year		2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	
2007/08	# Students entered	290							
	# Students withdrew, dropped, etc.	9							
	# Students graduated	0							
	Cumulative graduation rate	0.0%							
2008/09	# Students continuing at beginning of this school year	281	197						
	# Students withdrew, dropped, etc.	28	6						
	# Students graduated	2	0						
	Cumulative graduation rate	0.7%	0.0%						
2009/10	# Students continuing at beginning of this school year	251	191	234					
	# Students withdrew, dropped, etc.	20	27	7					
	# Students graduated	24	0	0					
	Cumulative graduation rate	9.0%	0.0%	0.0%					
2010/11	# Students continuing at beginning of this school year	207	164	227	198				
	# Students withdrew, dropped, etc.	16	21	27	5				
	# Students graduated	34	9	1	0				

	Cumulative graduation rate	20.7%	4.6%	0.4%	0.0%			
2011/12	# Students continuing at beginning of this school year	157	134	199	193	145		
	# Students withdrew, dropped, etc.	9	7	37	28	5		
	# Students graduated	65	14	7	0	0		
	Cumulative graduation rate	43.1%	11.7%	3.4%	0.0%	0.0%		
2012/13	# Students continuing at beginning of this school year	83	113	155	165	140	140	
	# Students withdrew, dropped, etc.	8	11	24	27	13	5	
	# Students graduated	40	50	13	4	0	0	
	Cumulative graduation rate	56.9%	37.1%	9.0%	2.0%	0.0%	0.0%	
2013/14	# Students continuing at beginning of this school year	35	52	118	134	127	135	171
	# Students withdrew, dropped, etc.	2	4	12	17	17	13	2
	# Students graduated	13	30	52	9	7	0	0
	Cumulative graduation rate	61.4%	52.3%	31.2%	6.6%	4.8%	0.0%	0.0%

Notes for Tables 2.7.b.ii-iii

Students entering

- Number of students who entered into the program at SFU in a particular year or transferred from another program or between BA and BSc programs.
- The first term of registration in a student's first undergraduate degree program was used to define entering year.

Students withdrew, dropped, etc.

- A student is defined as having dropped out of SFU if they have not yet graduated, and they have not registered at SFU for 3 terms in a row. Note that because students are only followed to the end of the 2013/14 Academic Year, drop-outs in 2013/14 may be undercounted.
- Students who transferred out of this degree and into another school or program at SFU.

Students graduated

- The number of students from the entering cohort who successfully completed the requirements for graduation.
- The graduation year is based on the completion term, not the convocation term.

Students continuing at beginning of this school year

- The number of students from the entering cohort who remained enrolled after subtracting out those who graduated
- and those who withdrew.
- Students who transferred out of this degree or left SFU, and then returned to the program, are treated as continuing the entire time.

Cumulative graduation rate

- The percentage of the original cohort who have graduated by a particular year.
- Students who withdrew from the program (through official notice or failure to enroll) are counted in the denominator of this calculation.

Overall SFU Completion Rates*

Admission in 2006/07:

4-year grad rate: 28%

5-year grad rate: 48%

6-year grad rate: 60%

7-year grad rate: 65%

Admission in 2007/08:

4-year grad rate: 26%

5-year grad rate: 45%

6-year grad rate: 58%

7-year grad rate: data not yet available

Admission in 2008/09:

4-year grad rate: 28%

5-year grad rate: 47%

6-year grad rate: data not yet available

7-year grad rate: data not yet available

Admission in 2009/10:

4-year grad rate: 28%

5-year grad rate: data not yet available

6-year grad rate: data not yet available

7-year grad rate: data not yet available

*Rates based on 4-7 years and the equivalent semester progress; *i.e.* 7 years = 21 semesters, which differs from the calculation used in Tables 2.7.bii-iii which is based on cohort analysis.

The FHS graduation rates for undergraduate majors are comparable to the graduation rates across SFU. The extended time frame for graduation at SFU and within FHS itself is driven by a set of factors that are common to students from all the Faculties. These factors include participating in cooperative education (co-op), students switching majors, students opting for lower course loads each semester, increasing level of students working while attending SFU, as well as difficulty in coordinating class schedules for students taking courses among the different faculties or units. The last factor is certainly something that can be managed better and is an area that the FHS and SFU is striving to improve.

Destination of Graduates
2.7.2.i Job Placement Rates Masters of Public Health Degree.

<i>Graduation Year</i>	<i>2010/11</i>
ALL CONCENTRATIONS	
Employed	30 (76%)
Continuing education/training (not employed)	7 (17%)
Actively seeking employment	2 (5%)
Not seeking employment (not employed, not continuing education/training by choice)	0
Unknown, or lost to follow-up ²	10
TOTAL	49

²Non-respondents are not included in percentages.

Information regarding job placement/destination was available for 39 of the 49 students who graduated (80%) in 2010-11.

<i>Graduation Year</i>	<i>2011/12</i>
ALL CONCENTRATIONS	
Employed	25 (86%)
Continuing education/training (not employed)	3 (10%)
Actively seeking employment	1 (3%)
Not seeking employment (not employed, not continuing education/training by choice)	0
Unknown, or lost to follow-up ²	18
TOTAL	47

²Non-respondents are not included in percentages.

Information regarding job placement/destination was available for 29 of the 47 students who graduated (61%) in 2011-12.

<i>Graduation Year</i>	<i>2012/13</i>
ALL CONCENTRATIONS	
Employed	23 (86%)
Continuing education/training (not employed)	3 (12%)
Actively seeking employment	0
Not seeking employment (not employed, not continuing education/training by choice)	0
Unknown, or lost to follow-up ²	16
TOTAL	42

²Non-respondents are not included in percentages.

Information regarding job placement/destination was available for 26 of the 42 students who had graduated (62%) in 2012-13.

<i>Graduation Year</i>	<i>2013/14*</i>
ALL CONCENTRATIONS	
Employed	18(64%)
Continuing education/training (not employed)	4 (14%)
Actively seeking employment	2 (7%)
Not seeking employment (not employed, not continuing education/training by choice)	
Unknown, or lost to follow-up ²	17
TOTAL	45

*Job placement information for graduates of 2013/14 was collected in Feb 2015 and therefore was not a full year post graduation. Information regarding job placement/destination was available for 28 (53%) of the 45 students who graduated in 2014.

²Non-respondents are not included in percentages.

2.7.2.ii Job Placement Rates BA and BSc Degree Programs.

The Public Health program has not previously collected job placement data for BA and BSc degree program due to staff capacity issues. However, in 2014 a new position entitled “Coordinator or Recruitment, Retention and Engagement” was formed. Part of this new portfolio, includes building a vital alumni engagement process. Undergraduate alumni surveys will be administered six months before graduation and again two years after graduation. Data collected in these surveys includes employment status, employment sector, relationship between major and job, job characteristics, pursuit of graduate or professional degrees, community involvement, and satisfaction with FHS including advising and career counseling services.

The province of BC conducted a survey of all 2011 Baccalaureate graduates (see Resource folder 1.2). The valid response rate for BA and BSc in the Public Health Programs at SFU was 52%. The results indicated that 73% of our BA and BSc graduands are in the workforce. This is comparable with to 88% of all SFU undergraduate degree graduands. Of those who identify as being in the workforce (i.e. not continuing education), 76% are employed and 24% are unemployed. The rates for SFU overall are 93% and 7% respectively.

Methods used to collect job placement data

2.7.c An explanation of the methods used to collect job placement data and of graduates’ response rates to these data collection efforts.

Alumni surveys (see Resource folder 1.2 sample graduate survey forms) were conducted in 2011, 2013 and 2015 for graduates of the 2010, 2012 and 2014 MPH cohorts. The response rates were 80 %, 61% and 36% respectively. In 2014 and 2015, we used LinkedIn to identify job placement data for the 2013 and 2014 graduates. We were able to capture destination data for 62 % of the 2013 cohort and 53% of the 2014 cohorts. It should be noted that data collection of job placement rate for the 2015 cohort was not one full year past graduation. We conducted the survey and LinkedIn search in February, 8 months post-graduation.

We anticipate greater reliance on using LinkedIn to capture this information and intend to use LinkedIn as an important portal for ongoing engagement with Alumni. Alumni receive multiple requests from FHS and SFU to complete surveys. Using LinkedIn will minimize our need to conduct surveys which we hope will improve receptivity to future requests when surveys are the only way to gather information.

The methods used to collect job placement data for Undergraduates is described above in 2.7.2.ii.

Professional Competence Certification

2.7.d In public health fields where there is certification of professional competence, data on the performance of the program's graduates on these national examinations for each of the last three years.

SFU's Master's Degree in Public Health does not offer areas of specialization where there is a requirement for certification of professional competence.

Assessment from Alumni and Employers of Graduates

2.7.e Data describing results from periodic assessments of alumni and employers of graduates regarding the ability of the program's graduates to effectively perform the competencies in a practice setting.

Graduates of the Master's Degree in Public Health were surveyed in 2013 and 2014 as part of our efforts to conduct online Alumni surveys (see Resource folder 1.2 for sample graduate survey forms). Graduates were asked to identify which competencies from the MPH program were most and least relevant to their current practice or work experiences. See table 2.7.e.i below for the responses to this question from the 2014 and 2013 Alumni surveys.

Table 2.7.e.i: Relevance of core competencies – 2014	
Core Competency	Ranking
Most relevant core competencies	
Communication	1
Communication	2
Health Systems	3
Policy/Program Planning	4
Partnerships	5
Least relevant core competencies	
Environmental and Occupational Health	1
Social Sciences	2
Core Concepts in Public Health	3
Gender, Culture and Social Location	4
Biostatistics	5

Table 2.7.e.i Relevance of core competencies - 2013	
Core Competency	Ranking
Most relevant core competencies	
Communication	1
Partnerships	2
Policy/Program Planning	3
Health Systems	4
Methods	5
Least relevant core competencies	
Environmental and Occupational Health	1
Biostatistics	2

Social Sciences	3
Epidemiology	4
Systems Thinking	5

We are exploring additional means to gather information about our graduates' performance in practice settings in addition to the alumni self-assessment measures reported here. We have concluded a focus group discussion with selected practicum preceptors at our 2014 practicum poster event to explore willingness to complete more in-depth practicum assessments that would include review of core competencies. We intend to repeat this focus group discussion with preceptors on an annual basis, including individual interviews with preceptors in the global health environment.

In addition, the MPH advisory committee is comprised of selected practicum preceptors, and representatives of local public health agencies and organizations. Not only do these sites host our students in practicums, they also employ our graduates. We anticipate that this advisory committee will provide a suitable forum to regularly receive feedback about how our graduates are performing and provide an important feedback mechanism into our curricula revisions to ensure we are meeting the needs of the public health practice community.

We do not, and have no plans to, survey employers of graduates. There are simply too many logistical difficulties and the resource demands are too high, for us to do so at this point. Further, Freedom of Information / Protection of Privacy legislation in British Columbia introduces a variety of unique difficulties and sensitivities in capturing performance assessment data on individuals. Should placement tracking data identify a core set of employers it may be possible to obtain generalized data and impressions of the core competencies of alumni but this is not a short term prospect, and aggregated data of this nature presents its own interpretive challenges. Our thoughts at this stage are to conduct pilot interviews with key employers that have hired our students to gather general information about new public health trainee recruits (not specifically our own alumni) and their readiness for practice.

Criterion Assessment

2.7.f Assessment of the extent to which this criterion is met.

Strengths

- A detailed and multifaceted review framework has been established for the Public Health programs at SFU. Several of these review processes have demonstrated overall strength and high quality of students and the educational experience afforded to them.
- The Public Health programs in the FHS have developed a comprehensive survey strategy to solicit feedback and competency progression of students over the course of their educational experience and beyond as they move into public health professions.
- There are University-level supporting evaluative tools that will help provide the baccalaureate Public Health programs with understanding about the student learning experience, the quality of the educational environment, and career outcomes of students.
- The FHS MPH program graduation rates are approaching target.
- The majority of graduates of the MPH degree are employed 1 year post graduation in public health positions
- The undergraduate BA and BSc majors are popular majors and have grown rapidly from their original development.
- Undergraduate student performance is meeting baseline objectives of target graduating CGPA minimum.
- Undergraduate students are rating their satisfaction with the program very high and have exceeded the target originally set for the program.
- Graduation rates for the undergraduate majors in the FHS are better than the overall rate for SFU undergraduates, though the completion times across the University are trending longer.

Weaknesses

- Reliance on student self-assessment of MPH graduate performance in practice settings.
- The FHS does not currently engage in, or have plans to pursue in the immediate future, a survey of employers of graduates from its Public Health programs.
- A sizable number of undergraduate majors in the FHS have been on academic probation during their degree and this fraction has been increasing. This same trend is found throughout SFU, though FHS rates exceed the average.
- Currently, data is lacking on the number of undergraduate majors in FHS who continue their academic training in a relevant Health Sciences graduate program.

Plans

- Academic probation is a system governed by University-level policies and procedures. Students on academic probation receive support through the 'Back on Track' program, which is a three term program focusing on academic and learning skill development with concurrent credit course enrolment. This program supports student success and re-entry into majors with good academic standing.
- Undergraduate alumni will complete an exit survey to gather information about their future plans for additional training in related Health Sciences professional and graduate programs in order to establish a target for ongoing assessment. In addition, undergraduate alumni surveys will be administered to gather data on employment status, employment sector, relationship between major and job, job characteristics, community involvement, and satisfaction with FHS.
- A combined undergraduate-graduate concurrent degree (BA/BSc→MPH/MSc) has recently been approved and will be effective for the Fall 2015 semester to streamline education and training for FHS majors interested in pursuing advanced degrees in this field.
- We are currently exploring the use of using LinkedIn to build a more meaningful engagement strategy with our post-graduate alumni audience to help improve survey response rates and establish opportunities to elicit feedback on work experiences in relation to training in our program.
- The MPH advisory committee will be asked to provide feedback on our MPH graduates and consulted with to ensure we are meeting the needs of the public health practice community.
- We continue to look for effective ways to capture the feedback of alumni, particularly through the recent creation of a position entitled "Coordinator or Recruitment, Retention and Engagement.
- Focus group discussions with preceptors will become an annual activity alongside our practicum poster day.
- We will conduct pilot interviews with key employers that have hired our students to gather general information about new public health trainee recruits (not specifically our own alumni) and their readiness for practice.

This Criterion is only partially met.

CRITERION 2.8 – ACADEMIC DEGREES

If the program also offers curricula for academic degrees, students pursuing them shall obtain a broad introduction to public health, as well as an understanding about how their discipline-based specialization contributes to achieving the goals of public health.

Identification of Academic Degree programs

N.B. THIS SECTION IS COMPLETED AS OUTLINED IN THE STANDALONE BACCALAUREATE PROGRAMS CRITERION 4.0

4.1. A list of the coursework required for the program's degree(s), including the total number of credits required for degree completion.

SFU's FHS offers two academic degree programs at the Baccalaureate level – the Bachelor of Arts in Health Sciences and the Bachelor of Science in Health Sciences. The Bachelor of Science degree offers either a Life Sciences stream or a Population & Quantitative Health Sciences stream.

Course Requirements for the BA in Health Sciences

The Bachelor of Arts in Health Sciences requires a minimum 120 units, which includes at least 45 units of upper division coursework. An Honors designation is also possible and requires completion of a thesis and 132 units.

Note: Students enrolled in **HSCI major or minor programs must have a grade of C- or better** in all required and pre-requisite courses. Courses taken in other departments (e.g. Statistics) may require higher than C-. Please be aware of the Writing/Quantitative/Breadth (WQB) requirements when choosing electives.

Lower Division Degree Requirements

All of:

- HSCI 100-3 Human Biology
- HSCI 130-4 Foundations of Health Sciences

And one of:

- SA 101-4 Introduction to Anthropology
- SA 150-4 Introduction to Sociology

And at least one of:

- HSCI 120-3 Introduction to Human Sexuality and Sexual Behavior
- HSCI 140-3 Complementary and Alternative Medicine
- HSCI 150-3 Current Topics in Human Sexuality
- HSCI 160-3 Global Perspectives on Health
- HSCI 170-3 Working for Health
- HSCI 180-3 Drugs and Society
- HSCI 199-3 Special Topics in Health Sciences

And one of:

- STAT 201-3 Statistics for the Life Sciences
- STAT 203-3 Introduction to Statistics for the Social Sciences

And at least four of:

- HSCI 211-3 Perspectives on Cancer, Cardiovascular and Metabolic Diseases
- HSCI 212-3 Perspectives on Infectious and Immunological Diseases
- HSCI 214-3 Perspectives on Mental Health and Illness
- HSCI 215-3 Perspectives on Disability and Injury

- HSCI 216-3 Ecological Determinants of Human Growth, Development and Health

Upper Division Degree Requirements

Students complete 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
- PHIL 319W-3 Applied Health Ethics
- HSCI 327-3 Global Health Ethics

and one of:

- HSCI 481-3 Senior Seminar in Social Health Science
- HSCI 482-3 Senior Seminar in Infectious Disease
- 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

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

BA - Honors Program

A minimum CGPA of 3.00 on all relevant measures (CGPA, upper division grade point average, Health Sciences major grade point average) is required for entry and must be maintained for graduation with honors.

Students who obtain both a program and graduation GPA of 3.5 are eligible for the designation first class.

Entry into the honors program requires sponsorship by a mentor from among Health Sciences faculty and approval of the Undergraduate Studies Committee. Students must complete at least 132 units and meet all the requirements for the major. Also required are 9 to 12 course credit hours for a research-based honors thesis carried out under the direction of a faculty Supervisor, as follows:

Unit Requirements

Both of:

- HSCI 490-3 Research Proposal
- HSCI 492-3 Honours Research Thesis

and one of

- HSCI 491-3 Independent Research
- HSCI 493-6 Extended Independent Research

Course Requirements for the BSc in Health Sciences

The Bachelor of Science degree requires 120 units of required, which includes at least 45 units of upper division coursework. The degree has a choice of a concentration in Life Sciences or a concentration in Population and Quantitative Health Sciences. Note: Students enrolled in HSCI major and minor programs must have a grade C- or better in required and prerequisite courses. Courses taken in other departments may require higher than C-.

Note: Students should be aware of the Writing/Quantitative/Breadth (WQB) requirements when choosing electives.

Life Sciences Area of Emphasis

Lower Division Requirements

Students complete all of:

- BISC 101-4 General Biology I
- BISC 102-4 General Biology II
- BISC 202-3 Genetics
- CHEM 121-4 General Chemistry and Laboratory I
- CHEM 122-2 General Chemistry II
- CHEM 281-4 Organic Chemistry I
- CHEM 282-2 Organic Chemistry II
- HSCI 130-4 Foundations of Health Science
- MATH 154-3 Calculus I for the Biological Sciences
- MATH 155-3 Calculus II for the Biological Sciences
- MBB 222-3 Biochemistry and Molecular Biology
- MBB 231-3 Cellular Biology and Biochemistry
- PHYS 101-3 Physics for the Life Sciences I

and one of:

- STAT 201-3 Statistics for the Life Sciences
- STAT 203-3 Introduction to Statistics for the Social Sciences

and two of:

- HSCI 211-3 Perspectives on Cancer, Cardiovascular Disease and Metabolic Diseases
- HSCI 212-3 Perspectives on Infectious and Immunological Diseases
- HSCI 214-3 Perspectives on Mental Health and Addiction
- HSCI 215-3 Perspectives on Disability and Injury
- HSCI 216-3 Ecological Determinants of Human Growth, Development and Health

Upper Division Requirements

Students complete all of:

- HSCI 305-3 The Canadian Health System
- HSCI 324-3 Human Population Genetics and Evolution
- HSCI 330-3 Exploratory Strategies in Epidemiology
- HSBI 321-3 Human Pathophysiology
- 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
- PHIL 319W-3 Applied Health Ethics
- HSCI 327-3 Global Health Ethics

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

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

- CHEM 360-3 Thermodynamics and Chemical Kinetics
- CHEM 371-3 Chemistry of the Aqueous Environment
- CHEM 372-3 Chemistry of the Atmospheric Environment
- HSCI 323-3 Principles of Pharmacology and Toxicology#
- HSCI/MBB 426-4 Immune System I: Basis of Innate and Adaptive Immunity#
- HSCI/MBB 427-3 Immune System II: Immune Response 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 443-3 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 Disease*
- KIN 305-3 Human Physiology I
- KIN 306-3 Human Physiology II
- 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 Diseases
- 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

Population and Quantitative Health Sciences Area of Emphasis

Lower Division Requirements

Students complete all of:

- BISC 101-4 General Biology I
- BISC 102-4 General Biology II
- BISC 202-3 Genetics
- HSCI 130-4 Foundations of Health Sciences
- MATH 154-3 Calculus I for the Biological Sciences

And at least five of:

- CHEM 121-4 General Chemistry and Laboratory I
- CHEM 122-2 General Chemistry II
- CHEM 281-4 Organic Chemistry I
- CHEM 282-2 Organic Chemistry II
- CMPT 126-3 Introduction to Computer Science and Programming
- ECON 104-3 Economics and Government
- MATH 155-3 Calculus II for the Biological Sciences
- PHYS 101-3 Physics for the Life Sciences I

and one of:

- ENGL 199-3 Introduction to University Writing
- PHIL 120-3 Introduction to Moral Philosophy

and one of:

- STAT 201-3 Statistics for the Life Sciences
- STAT 203-3 Introduction to Statistics for the Social Sciences

and at least three of:

- HSCI 211-3 Perspectives on Cancer, Cardiovascular and Metabolic Diseases
- HSCI 212-3 Perspectives on Infectious and Immunological Diseases
- HSCI 214-3 Perspectives on Mental Health and Addiction
- HSCI 215-3 Perspectives on Disability and Injury
- HSCI 216-3 Ecological Determinants of Human Growth, Development and Health

Upper Division Requirements

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
- PHIL 319W-3 Applied Health Ethics
- HSCI 320-3 Global 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 Disease#
- 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)

Note: Students enrolled in HSCI major or minor programs must have a grade of C- or better in all required and prerequisite courses. Required courses from other departments may require higher than C-.

BSc - Honors Program

A minimum of 3.00 on all relevant measures (CGPA, upper division grade point average, Health Sciences major grade point average) is required for entry and must be maintained for graduation with honors.

Students who obtain both a program and graduation GPA of 3.5 are eligible for the designation first class.

Entry into the honors program requires sponsorship by a mentor from among Health Sciences faculty and approval of the Undergraduate Studies Committee. Students must complete at least 132 units and meet all the requirements for the major. Also required are 9 to 15 course credit hours for a research-based honors thesis carried out under the supervision of the a faculty Supervisor, as follows:

Credit Hour Requirements

- HSCI 490-3 Research Proposal
- HSCI 491-3 Independent Research or HSCI 493-6 Extended Independent Research
- HSCI 492-3 Honors Thesis

Or

- HSCI 490-3 Research Proposal
- HSCI 494-9 Independent Laboratory Research
- HSCI 492-3 Honors Thesis

Health Sciences & Philosophy Joint Major Requirements

Courses used toward the upper division philosophy requirements may not be used as part of health sciences credit requirements, and vice versa. Any lower division course that counts toward the separate requirements for philosophy and health sciences may be counted toward both.

Students are required to satisfy the prerequisites of all courses (upper and lower division) that are taken within this joint major and should consult regularly with the program advisors regarding course selection.

Students complete 120 units, as specified below.

Lower Division Health Sciences Requirements

Students complete a minimum of 15 units, including all of

- HSCI 100 - Human Biology (3)
- HSCI 130 - Foundations of Health Science (4)

and at least two of

- HSCI 211 - Perspectives on Cancer, Cardiovascular, and Metabolic Diseases (3)
- HSCI 212 - Perspectives on Infectious and Immunological Diseases (3)
- HSCI 214 - Perspectives on Mental Health and Illness (3)
- HSCI 215 - Perspectives on Disability and Injury (3)
- HSCI 216 - Ecological Determinants of Human Growth, Development and Health (3)

and one of

- STAT 201 - Statistics for the Life Sciences (3)
- STAT 203 - Introduction to Statistics for the Social Sciences (3)

Lower Division Philosophy Requirements

In selecting lower division courses, students are advised to consider the prerequisite structure for upper division courses in philosophy.

Students complete a minimum of 12 units, including at least one of

- PHIL 100W - Knowledge and Reality (3)
- PHIL 120W - Introduction to Moral Philosophy (3)
- PHIL 144 - Introduction to the Philosophy of Natural and Social Science (3)
- PHIL 150 - History of Philosophy I (3)
- PHIL 151 - History of Philosophy II (3)

and one of

- PHIL 110 - Introduction to Logic and Reasoning (3)
- PHIL 210 - Natural Deductive Logic (3)

and both of

- PHIL 201 - Epistemology (3)
- PHIL 203 - Metaphysics (3)

Upper Division Health Sciences Requirements

Students complete a minimum of 18 upper division health sciences units, including all of

- HSCI 305 - The Canadian Health System (3)
- HSCI 319W - Applied Health Ethics (3)
- HSCI 327 - Global Health Ethics (3)
- HSCI 330 - Exploratory Strategies in Epidemiology (3)
- HSCI 340 - Social Determinants of Health (3)

and three additional upper division health sciences units.

Upper Division Philosophy Requirements

Students complete a total of 19 upper division philosophy units, including at least one of

- PHIL 320 - Social and Political Philosophy (3)
- PHIL 321 - Topics in Moral Philosophy (3)
- PHIL 322 - History of Ethics (3)

and at least one of

- PHIL 302 - Topics in Epistemology and Metaphysics (3)
- PHIL 341 - Philosophy of Science (3)
- PHIL 343 - Philosophy of Mind (3)

- PHIL 344 - Philosophy of Language (3)
- and at least one of
- PHIL 322 - History of Ethics (3) *
 - PHIL 350 - Ancient Philosophy (3)
 - PHIL 352 - 17th Century Philosophy (3)
 - PHIL 356 - 18th Century Philosophy (3)
 - PHIL 357 - Topics in the History of Philosophy (3)
- and at least one 400 division philosophy course.
* if not taken in satisfaction of requirement above

Public Health Orientation to Academic Degrees

4.2 Official documentation of the required components and total length of the degree, in the form of an institutional catalog or online resource. Provide hyperlinks to documents if they are available online, or include in the resource file electronic copies of any documents that are not available online.

Online Calendar of SFU

<http://www.sfu.ca/students/calendar/2014/fall.html>

Online Calendar of the Education Programs in the FHS

<http://www.sfu.ca/students/calendar/2014/fall/areas-of-study/health-sciences.html>

4.3 A matrix, in the format of Template K, that indicates the experience(s) that ensure that students are introduced to each of the domains indicated in Criterion 4.1. Template K requires the program to identify the experiences that introduce each domain.

DOMAINS	Courses and other learning experiences through which students are introduced to the domains specified
Science: Introduction to the foundations of scientific knowledge, including the biological and life sciences and the concepts of health and disease	HSCI100-Human Biology, BISC101-General Biology I, BISC102-General Biology II, PHYS101-Physics for the Life Sciences I, CHEM121-General Chemistry and Laboratory I, CHEM122-General Chemistry II, HSCI130-Foundations of Health Science, BISC202-Genetics, HSCI211-Perspectives on Cancer, Cardiovascular, and Metabolic Diseases, HSCI212-Perspectives on Infectious and Immunological Diseases, HSCI214-Perspectives on Mental Health and Illness, HSCI215-Perspectives on Disability and Injury, HSCI216-Ecological Determinants of Human Growth, Development and Health, CHEM281-Organic Chemistry I, CHEM282-Organic Chemistry I, MBB222-Biochemistry and Molecular Biology, MBB231-Cellular Biology and Biochemistry
Social and Behavioral Sciences: Introduction to the foundations of social and behavioral sciences	HSCI130-Foundations of Health Science, SA101-Introduction to Anthropology, SA150-Introduction to Sociology, HSCI211-Perspectives on Cancer, Cardiovascular, and Metabolic Diseases, HSCI212- Perspectives on Infectious and Immunological Diseases, HSCI214-Perspectives on Mental Health and Illness, HSCI215-Perspectives on Disability and Injury, HSCI216-Ecological Determinants of Human Growth, Development and Health, HSCI340-Social Determinants of Health
Math/Quantitative Reasoning: Introduction to basic statistics	HSCI130-Foundations of Health Science, MATH154, MATH155, STAT201-Statistics for the Life Sciences, STAT203-Introduction to Statistics for the Social Sciences, STAT302-Analysis of Experimental and Observational Data, STAT305-Introduction to Biostatistical Methods for Health Sciences. Also

	other courses may apply *
Humanities/Fine Arts: Introduction to the humanities/fine arts	Specific courses are not required **

* *n.b.* students are required to complete 2 courses designated as **quantitative** courses to complete their undergraduate degree at SFU. See http://www.sfu.ca/ugcr/for_students/wqb_requirements.html

** *n.b.* students are required to complete 2 courses designated as **breadth humanities** courses to complete their undergraduate degree at SFU. See http://www.sfu.ca/ugcr/for_students/wqb_requirements.html

4.4 A matrix, in the format of Template L, that indicates the experience(s) that ensure that students are exposed to each of the domains indicated in Criterion 4.2. Template L requires the program to identify the experiences that introduce and reinforce each domain.

Refer to Appendix 4.4.a for Template L.

4.5 A matrix, in the format of Template M, that indicates the experience(s) that ensure that students demonstrate skills in each of the domains indicated in Criterion 4.3. Template M requires the program to identify the experiences that introduce and reinforce each domain.

Skills	Courses and other learning experiences through which students demonstrate the following skills.	Methods by which these skills are assessed.
Public Health Communication: Students should be able to communicate public health information, in both oral and written forms and through a variety of media, to diverse audiences		
	Oral communication	HSCI100, HSCI211, HSCI212, HSCI215, HSCI216, HSCI307, HSCI312, HSCI410, HSCI424, HSCI432, HSCI478, HSCI481, HSCI482, HSCI485, HSCI486
		Individual or group presentations in class, laboratories, or tutorials
	Written communication	HSCI130, HSCI211, HSCI212, HSCI214, HSCI216, HSCI304, HSCI305, HSCI307, HSCI312, HSCI319W, HSCI321, HSCI324, HSCI330, HSCI340, HSCI440, HSCI441, HSCI442, HSCI443, HSCI481, HSCI482, HSCI483, HSCI484, HSCI485, HSCI486
		Research papers. Essays. Reflections. Project proposals. Letters to editor. Laboratory reports.
	Communicate with diverse audiences	HSCI449, HSCI372
		Service learning community projects. Storyboards
	Communicate through variety of media	HSCI312, HSCI449, HSCI478, HSCI483
		Video projects, poster presentations, infographic projects
Information Literacy: Students should be able to locate, use, evaluate, and synthesize information		
	Locate information	HSCI100, HSCI130,
		Tutorial assignments
	Use information	HSCI100, HSCI130, HSCI211, HSCI212, HSCI214, HSCI215, HSCI216, HSCI304, HSCI305, HSCI307, HSCI312, HSCI319W, HSCI321, HSCI324, HSCI330, HSCI340, HSCI410, HSCI424, HSCI432, HSCI440, HSCI441, HSCI442, HSCI443, HSCI474, HSCI475, HSCI476, HSCI478, HSCI481, HSCI482, HSCI483, HSCI484, HSCI485, HSCI486
		Examinations, Research papers. Essays. Reflections. Project proposals. Letters to editor. Laboratory reports.
	Evaluate information	HSCI100, HSCI130, HSCI211, HSCI212, HSCI214, HSCI215, HSCI216, HSCI304, HSCI305, HSCI307, HSCI312, HSCI319W, HSCI321, HSCI324, HSCI330, HSCI340, HSCI410, HSCI424, HSCI432, HSCI440, HSCI441, HSCI442, HSCI443, HSCI474, HSCI475, HSCI476, HSCI478, HSCI481, HSCI482,
		Examinations, Research papers. Essays. Reflections. Project proposals. Letters to editor. Laboratory reports.

	HSCI483, HSCI484, HSCI485, HSCI486	
Synthesize information	HSCI304, HSCI305, HSCI307, HSCI319W, HSCI321, HSCI324, HSCI330, HSCI340, HSCI440, HSCI441, HSCI442, HSCI443, HSCI481, HSCI482, HSCI483, HSCI484, HSCI485, HSCI486	Examinations, Research papers. Essays. Reflections. Project proposals. Letters to editor. Laboratory reports.

4.6 A matrix, in the format of Template N, that identifies the cumulative and experiential activities through which students have the opportunity to integrate, synthesize and apply knowledge as indicated in Criterion 4.4.

Cumulative and Experiential Activity (internships, research papers, service-learning projects, etc.)	Narrative describing how activity provides students the opportunity to integrate, synthesize and apply knowledge.
HSCI440, 441, 442, 443	Advanced laboratory courses providing hands-on experimentation
HSCI474, 474, 475, 476, 477, 479	Seminar courses where current peer-reviewed literature is discussed, analyzed, and critiqued
HSCI481, 482, 483, 484, 485, 486	Senior seminar courses current peer-reviewed literature is discussed, analyzed, and critiqued.
HSCI410, 432, 478	Advanced courses in evaluating and implementing quantitative methodology
HSCI350, 351, 352, 450, 451, 452	Co-operative education experience 4-12 months in duration with employers
HSCI449	Community and health service links students to projects based in community organizations involved in health program evaluation, health promotion, disease prevention, etc.
HSCI488, 489	Directed studies and directed research courses involve students in 1-on-1 research projects with faculty
HSCI490, 491, 492, 493, 494	Honor's thesis sequence for students to pursue extended experience for independent research with faculty supervisor and advisory committee

4.7 A brief narrative description, in the format of Template O, of the manner in which the curriculum and co-curricular experiences expose students to the concepts in Criterion 4.5.

Concept	Manner in which the curriculum and co-curricular experiences expose students to the concepts
Advocacy for protection and promotion of the public's health at all levels of society	Advocacy for public health concerns is specifically addressed in a Special Topics HSCI471 "Public Health Advocacy" course offered online (CODE) which has been recently added to the curriculum. Other courses in the FHS address these in specific contexts (see Template L section on Human Health), e.g. HSCI412 "Health Communication".
Community dynamics	Appreciation of community dynamics and investment in health is covered in HSCI312 "Health Promotion: Individuals and Communities" and HSCI449 "Community and Health Service", the latter of which directly participates with different community groups through service learning with these partners.
Critical thinking and creativity	Projects in several courses offer opportunities for creativity (HSCI312, 333, 345, 431). Critical thinking is required as a part of assessment and grading in many if not the majority of courses offered in the major. Courses, as indicated by core CEPH competencies, which have routinely been included in syllabi since accreditation in 2009.
Cultural contexts in which public health professionals work	This may not be emphasized to a strong extent in our student's experience. International student exchange opportunities exist for students to gain direct exposure to different cultural contexts for public health. For exchange agreements are in place with National Taiwan University in the College of Public Health, Chinese University of Hong Kong in the Jockey Club School of Public Health and Primary Care, and Deakin University (Australia). Co-operative education positions are also on some occasions placed within different cultural contexts than the Canadian or American settings. Concepts for cultural contexts for public health professionals is

	covered in some elective courses in the FHS: HSCI160 'Global Perspectives on Health', HSCI170 'Working for Health', HSCI308 'Sickness and Wealth: Health in Global Perspective', HSCI327 'Global Health Ethics', and HSCI406 'Global Perspectives in Indigenous Health'.
Ethical decision making as related to self and society	Ethical frameworks for decision making at individual and societal levels is covered in HSCI319, HSCI327 coursework. Ethical decisions are also discussed in many courses (see Template L section on Health Policy, Law, Ethics, and Economics). There is also a student-founded and -led Health Ethics Club.
Independent work and a personal work ethic	Independent work opportunities are afforded to students through co-operative education (aka work-integrated learning). Co-op students graduate with a year of work experience in which they are hired and paid as regular employees. Independent work and personal work ethics are regularly emphasized in coursework throughout the curriculum. Particular emphasis on independence by students is gained through honors and directed studies/research courses. Work-study positions are also available to eligible students. These positions enable students to conduct research with faculty while earning financial support for their studies.
Networking	Networking by majors in the FHS is not specifically covered by the curriculum apart from the elective course: HSCI170 'Working for Health'. Opportunities for networking exist for students through co-operative education semesters. The Health Sciences Undergraduate Student Union (HSUSU) is a student-run organization dedicated to promote and represent the interests of undergraduate students in the FHS and to provide opportunities for personal and professional development. HSUSU has sponsored a career fair and speakers' panel event with potential employers and has plans for making this an annual event with support from the Faculty. The FHS Peer Mentorship Program also enables students to network amongst themselves as experienced majors are paired with incoming FHS majors to act as mentors and provide advice for new students. The AIDS Awareness Network is a student driven association operating out of the FHS. This club reaches out to the SFU community and the Greater Vancouver Area to raise awareness and reduce stigma surrounding HIV and AIDS.
Organizational dynamics	This concept may not be emphasized in our student's experience. Organization dynamics may be experienced by students involved with HSUSU and representative positions in governing bodies. Two student representatives on the Undergraduate Studies Committee (automatic members of HSUSU) attend monthly meetings dedicated to issues surrounding the undergraduate programs. One of the representatives is a voting member of the Committee. These student representatives have also been recently invited to attend the monthly Faculty Council meetings as non-voting participants.
Professionalism	Professionalism in the context of a job or career is not specifically covered by the curriculum apart from the elective course: HSCI170 'Working for Health'. Student exposure and development of professionalism in the workplace is gained via co-operative education employment. Many courses do discuss and reinforce professionalism as it applies to scholarship and authorship.
Research methods	Research methods are introduced, reinforced and applied in variety of courses in the curriculum. For example it is the primary concern in HSCI307 'Research Methods in Health Sciences'. Research methods are also major parts of the student experience in upper division laboratory and seminar courses (HSCI410, 424, 432, 440, 441, 442, 443, 474, 475, 476, 478, 479, 482, 483, 484, 485, and 486). In addition, students may be deeply engaged in research methodology through the honors program, and work-study or co-op employment.
Systems thinking	Systems thinking is central learning objective in several courses, as indicated by core CEPH competencies, which have routinely been included in syllabi since accreditation in 2009.
Teamwork and leadership	Teamwork is commonplace in many projects and assignments completed by students in coursework throughout the Health Sciences curriculum. Student-led associations also offer genuine opportunities for students to develop teamwork and leadership skills. Such organizations include the FHS Peer Mentorship Program, Health Ethics Club, HSUSU, and the AIDS-Awareness Network.

4.8 Syllabi for all required coursework for the major and/or courses that relate to the domains listed above. Syllabi should be provided as individual files in the electronic resource file and should reflect the current semester or most recent offering of the course.

See Resource File.

4.9 Examples of student work.

Samples are being collected. We are also in the process of securing student consent to release their work for review at the site visit in May.

4.10 A brief description of the means through which the program implements the cumulative experience and field exposure requirements.

The cumulative experience for the undergraduate majors in Health Sciences is traditionally attained through 400-level and occasionally 300-level course-work that focuses on multiple viewpoints of health and the interdisciplinary approach that is central to the mission of the FHS. The courses that deliver such experiences are described in section 4.6 above. The FHS currently does not have a field school. This represents an important opportunity for expanding the type of engaged or experiential activities for our undergraduates.

4.11 Handbooks, websites, forms and other documentation relating to the cumulative experience and field exposure. Provide hyperlinks to documents if they are available online, or include in the resource file electronic copies of any documents that are not available online.

As noted above in 4.6, the cumulative experience for undergraduate majors is attained through 400-level course-work, as well as seminar courses, directed studies and honours courses. Guidelines and application forms for these are found at this link <http://www.sfu.ca/fhs/current-students/undergraduates/forms.html>

Criterion Assessment

2.8.d Assessment of the extent to which this criterion is met.

Strengths

- Both the Bachelor of Arts in Health Sciences and the Bachelor of Science in Health Sciences offer students a comprehensive foundation in general education and public health domains.
- Both baccalaureate programs enable students to gain applicable skills in the public health domains and exercise key concepts in public health.
- The FHS has a structured culminating experience for all academic degrees. This is accomplished through the 400-level seminar system and other 400-level courses which afford students the opportunity to integrate and synthesize knowledge gained over their undergraduate careers.

Weaknesses

- The baccalaureate programs would benefit by allowing additional opportunities for students to engage with communities and diverse audiences. In addition, the FHS undergraduates generally lack an opportunity for field school experience as well as specific training in networking, organizational dynamics, and professionalism.

Plans

- The weaknesses noted above are new opportunities for expanding and strengthening the foundations laid by the inaugural CEPH accreditation and which also represent new criteria on which to examine our

- baccalaureate or undergraduate programs.
- Opportunities for developing a field school (e.g. Cambodia National Institute of Public Health), engaging more community partners (e.g. Bridges to Surrey), networking/organizational dynamics/professionalism (e.g. Certificate in Innovation and Entrepreneurship), and exposing students to more professional settings (e.g. Career Panel Night) are recent additions to our programming or planned additions. In addition, a new proposal “Faculty of Health Sciences 101” is planned as a continuing course for Health Sciences undergraduate majors that begins with engagement, continues with enrichment, and ends with culmination, only to begin again as engagement as new alumni of the program.

This Criterion is partially met.

CRITERION 2.9 – DOCTORAL DEGREES

The program may offer doctoral degree programs, if consistent with its mission and resources.

At present, SFU's FHS does not offer a doctoral program in Public Health. A PhD in Health Sciences is available in FHS at SFU but this degree is not included in our unit of accreditation.

CRITERION 2.10 – JOINT DEGREES

If the program offers joint degree programs, the required curriculum for the professional public health degree shall be equivalent to that required for a separate public health degree.

At present, SFU's FHS offers only one joint degree programs within its Public Health programs. A joint BA major in Philosophy and Health Sciences is described in section 4.1 above.

CRITERION 2.11 – DISTANCE EDUCATION OR EXECUTIVE DEGREE PROGRAMS

If the program offers degree programs using formats or methods other than students attending regular on-site course sessions spread over a standard term, these degree programs must (a) be consistent with the mission of the program and within the program's established areas of expertise; (b) be guided by clearly articulated student learning outcomes that are rigorously evaluated; (c) be subject to the same quality control processes that other degree programs in the university are; and (d) provide planned and evaluated learning experiences that take into consideration and are responsive to the characteristics and needs of adult learners. If the program offers distance education or executive degree programs, it must provide needed support for these programs, including administrative, travel, communication, and student services. The program must have an ongoing program to evaluate the academic effectiveness of the format, to assess teaching and learning methodologies and to systematically use this information to stimulate program improvements.

At present, SFU's FHS does not offer any distance education or executive degree programs.