



<b>1.0 INTRODUCTIONS</b>	
1.1 WELCOME LETTER.....	3
1.2 DEPARTMENT OF EPIDEMIOLOGY – MISSION.....	4
1.3 PREFACE.....	4
<b>2.0 ADMINISTRATIVE</b>	
2.1 DEPARTMENT OF EPIDEMIOLOGY ADMINISTRATIVE ORGANIZATION.....	5
2.2 KEY CHAN SCHOOL CONTACTS.....	5
2.3 IMPORTANT ACADEMIC DATES 2018-2019.....	6-7
<b>3.0 GENERAL ACADEMIC INFORMATION</b>	
3.1 DEGREES.....	8
3.2 AREAS OF INTEREST.....	8
3.3 ADMISSIONS POLICIES AND REQUIREMENTS.....	8
3.4 ADVISORS.....	9
3.5 COURSE WAIVERS.....	9-10
3.6 INDEPENDENT STUDY/TUTORIAL (EPI 300).....	10
3.7 TEACHING CREDITS (EPI 311).....	10
3.8 WINTER SESSION).....	11
3.9 ADDITIONAL RECOMMENDATIONS.....	11
<b>4.0 FINANCIAL AID AND GRADUATE FUNDING</b>	
4.1 FINANCIAL AID AND GRADUATE FUNDING OVERVIEW.....	11
4.2 TRAINING GRANTS.....	12
4.3 TEACHING ASSISTANT EXPERIENCE.....	12
<b>5.0 SM1 - MASTER OF SCIENCE SUMMER ONLY (42.5 CREDITS)</b>	
5.1 INTRODUCTION.....	13
5.2 COMPETENCIES.....	13
5.3 REQUIREMENTS.....	13-14
5.4 EPI 315 ENROLLMENT.....	15
5.5 COURSES.....	15
<b>6.0 SM1 - MASTER OF SCIENCE ACADEMIC YEAR (42.5 CREDITS)</b>	
6.1 INTRODUCTION.....	16
6.2 COURSE COMPLETION.....	16
6.3 COMPLETION.....	16
6.4 COURSE REQUIREMENT.....	16
<b>7.0 MASTER OF PUBLIC HEALTH IN EPIDEMIOLOGY (42.5 CREDITS)</b>	
7.1 INTRODUCTION.....	17
<b>8.0 MASTER OF SCIENCE IN COMPUTATIONAL BIOLOGY &amp; QUANTITATIVE GENETICS</b>	
8.1 INTRODUCTION.....	17-18
<b>9.0 SM2 - MASTER OF SCIENCE (80 CREDITS – 2 YEARS)</b>	
9.1 INTRODUCTION.....	19
9.2 COMPETENCIES.....	19

9.3 THESIS REQUIREMENTS AND GUIDELINES.....	19
9.4 THESIS TIMELINE.....	20
9.5 COURSE REQUIREMENTS.....	21
9.6 SAMPLE SCHEDULE.....	21-22
<b>10.0 Ph.D. PHS – Doctor of Philosophy in Population Health Sciences</b>	
10.1 INTRODUCTION.....	23
10.2 PHS & EPI REQUIRED COURSES.....	23
10.3 REQUIRED COURSES.....	24
10.4 WRITTEN EXAM OVERVIEW.....	25
10.5 PROCEDURE FOR THE EXAMINATION.....	25
10.6 OTHER REQUIREMENTS & ADDITIONAL RECOMMENDATIONS.....	26
<b>11.0 INTERDISCIPLINARY CONCENTRATIONS &amp; COURSE LISTINGS</b>	
11.1 INTERDISCIPLINARY CONCENTRATIONS.....	27
11.2 DEPARTMENT COURSE LISTINGS.....	27
<b>12.0 STUDENT RESOURCES AND INFORMAITON</b>	
12.1 STUDENT GROUPS.....	27-28
12.2 STUDENT & DEPARTMENTAL GROUPS.....	28
<b>13.0 DEPARTMENT RESOURCES.....</b>	<b>28-29</b>
<b>14.0 ALUMNI SERVICES.....</b>	<b>29-30</b>

### 1.1 WELCOME TO THE DEPARTMENT OF EPIDEMIOLOGY!

Dear Students,

Welcome to the Department of Epidemiology and the Harvard T.H. Chan School of Public Health. Every year the department has the privilege of welcoming exceptional individuals into the program and providing them with the necessary support to become the next leaders in public health – as the newest members, we commend you on your accomplishments thus far and am confident that you will be successful in your future endeavors.

Here in the department our mission is to evaluate and improve human health through education and research. We do this by offering students the opportunity to take a breadth and depth of coursework within the department and across the school, building a strong methodological foundation, and enriching the research experience through our faculty and partnerships with hospitals. You will be surrounded by supportive faculty, staff, administration, and students who are all dedicated to cultivating a positive and empowering environment – the relationships you build will span across the school and hopefully the world.

It is our great pleasure and privilege as Chair and Deputy Chair of the Department of Epidemiology to serve as instructors, mentors, colleagues, and leaders to a community so dedicated to spreading global health. We look forward to getting to know you and hearing about your research interests and aspirations.

Kind regards,

Dr. Albert Hofman  
Chair, Department of Epidemiology  
Stephen B. Kay Family Professor of Public Health and Clinical Epidemiology

Dr. Deborah Blacker  
Deputy Chair, Department of Epidemiology

## 1.2 DEPARTMENT OF EPIDEMIOLOGY - MISSION

The Department of Epidemiology at the Harvard T.H. Chan School of Public Health investigates the frequency, distribution, and determinants of disease in humans, a fundamental science of public health. We strive to cultivate leaders and practitioners through research, methodology, and education.

### Research

Well-grounded multidisciplinary research toward assessing the distribution and determinants of human illness with the aim of establishing reasoned preventive measures.

### Methodology

Continuous efforts to improve methods for epidemiological investigation, to enhance validity and efficiency, and to expand the scope of activities in which epidemiologic methods can be usefully applied.

### Education

Preparation of future researchers and practitioners in the field of epidemiology, as well as dissemination of knowledge to health professionals and the general public. As the reach of the Chan School is global in scope, so too is our research program. We are committed to the enhancement of quality of health not only in our own country, but internationally.

Led by our distinguished Chair Dr. Albert Hofman (Stephen B. Kay Family Professor), our renowned faculty, diverse student body, and dedicated administrative staff foster a collegial and supportive community, allowing all members to reach their full potential.

## 1.3 PREFACE

This handbook describes the academic requirements, policies and programs in the Department of Epidemiology. The contents of this handbook are a supplement to the official [Harvard T.H. Chan School of Public Health Student Handbook](#). Epidemiology students (ScD, PhD, SM1, SM2, and MPH) are responsible for general knowledge of, and adherence to, the policies and requirements described in the Chan School Student Handbook as well as this Epidemiology Department Student Handbook. Doctor of Philosophy in Population Health Sciences students with Epidemiology as their Field of Study are responsible for the general knowledge of, and adherence to, the policies and requirements in the [Population Health Sciences Handbook](#) and [Graduate School of Arts and Sciences Handbook](#), as well as this Epidemiology Department Student Handbook. It should be noted that except under rare circumstances, students are subject to the rules in place during their year of entry. Student Handbooks for prior years are available [here](#). In addition, where school-wide and departmental policies overlap, Chan School Student Handbook or Graduate School of Arts and Sciences Handbook (for PhD) takes precedence. The Department of Epidemiology reserves the right to update the information published in the Handbook as necessary.

*All information correct at time of publication ©2018*

2.1 DEPARTMENT OF EPIDEMIOLOGY ADMINISTRATIVE ORGANIZATIONS

Name	Title	Contact Information
Albert Hofman, MD, PhD	Department Chair, Stephan B. Kay Family Professor of Public Health	617-432-6477 <a href="mailto:ahofman@hsph.harvard.edu">ahofman@hsph.harvard.edu</a>
Deborah Blacker, ScD, MD	Deputy Chair, Professor in Epidemiology	<a href="mailto:Blacker@psych.mgh.harvard.edu">Blacker@psych.mgh.harvard.edu</a>
Coppelia Liebenthal	Executive Assistant to the Chair	617-432-6477 <a href="mailto:cliebent@hsph.harvard.edu">cliebent@hsph.harvard.edu</a>
Ellen Furxhi, MS	Director of Administration	617-432-1301 <a href="mailto:dvaughn@hsph.harvard.edu">dvaughn@hsph.harvard.edu</a>
Eric DiGiovanni	Assistant Director of Graduate Studies	617-432-1328 <a href="mailto:edigiova@hsph.harvard.edu">edigiova@hsph.harvard.edu</a>
Caroline Huntington, MEd	Senior Graduate Studies Coordinator	617-432-5250 <a href="mailto:chunting@hsph.harvard.edu">chunting@hsph.harvard.edu</a>
Warisha Amin, MPH	Graduate Studies Coordinator	617-432-7973 <a href="mailto:wamin@hsph.harvard.edu">wamin@hsph.harvard.edu</a>
Jiyoung Won	Senior Administrative Assistant	617-432-1050 <a href="mailto:jiwon@hsph.harvard.edu">jiwon@hsph.harvard.edu</a>
Megan Marchese	Academic Appointments Coordinator	617-432-5035 <a href="mailto:marchese@hsph.harvard.edu">marchese@hsph.harvard.edu</a>
Laura Severse	Director of Finance	<a href="mailto:lseverse@hsph.harvard.edu">lseverse@hsph.harvard.edu</a>
Sean Mayne	Assistant Director of Finance	<a href="mailto:smayne@hsph.harvard.edu">smayne@hsph.harvard.edu</a>
Jamie Fu, MBA	Assistant Director of Finance	<a href="mailto:jafu@hsph.harvard.edu">jafu@hsph.harvard.edu</a>
Alan Berkeley	Senior Grants Manager	<a href="mailto:aberkele@hsph.harvard.edu">aberkele@hsph.harvard.edu</a>
Jeff Gorman	Grants Manager	<a href="mailto:jgorman@hsph.harvard.edu">jgorman@hsph.harvard.edu</a>
Radford Welch	Training Grant Manager	<a href="mailto:rwelch@hsph.harvard.edu">rwelch@hsph.harvard.edu</a>
Gray Maganga	Grants Manager	<a href="mailto:gmaganga@hsph.harvard.edu">gmaganga@hsph.harvard.edu</a>
Mike Curtis	Grants Manager	<a href="mailto:mcurtis@hsph.harvard.edu">mcurtis@hsph.harvard.edu</a>
Manyee To	Senior Grants Manager	<a href="mailto:mto@hsph.harvard.edu">mto@hsph.harvard.edu</a>
Sokharat Um	Accounts Payable Coordinator	<a href="mailto:sum@hsph.harvard.edu">sum@hsph.harvard.edu</a>

\*All documents requiring the Chair's signature should be submitted to a member of the Epi Academic Team

2.2 KEY CHAN SCHOOL CONTACTS

Department	Name	Title	Contact Information
<a href="#">Career Advancement</a>	Suprawee Tepsuporn	Assistant Director/Career Coach	617-432-1034 <a href="mailto:Stepsupo@hsph.harvard.edu">Stepsupo@hsph.harvard.edu</a>
<a href="#">Disability Services</a>	Colleen Cronin	Associate Director of Student Affairs	617-432-1542 <a href="mailto:studentaffairs@hsph.harvard.edu">studentaffairs@hsph.harvard.edu</a>
<a href="#">Graduate School of Arts and Sciences Office of Admissions</a>	N/A	N/A	617-495-5315 <a href="mailto:admiss@fas.harvard.edu">admiss@fas.harvard.edu</a>
<a href="#">Harvard T. H. Chan School Office of Admissions</a>	N/A	N/A	617-432-1031 <a href="mailto:admissions@hsph.harvard.edu">admissions@hsph.harvard.edu</a>
<a href="#">Office of Student Affairs</a>	Student Affairs Officer	Student Affairs Officer	617-432-1036 <a href="mailto:studentaffairs@hsph.harvard.edu">studentaffairs@hsph.harvard.edu</a>
<a href="#">Office of Financial Aid</a>	Ada Horne	Financial Aid Coordinator	617-432-1867 <a href="mailto:OSFS@hsph.harvard.edu">OSFS@hsph.harvard.edu</a>
<a href="#">Longwood Area Harvard Police</a>	Officers	Officers	617-432-1212 90 Smith Street
<a href="#">Office for Alumni Affairs</a>	Amelia Clouse	Coordinator for Alumni Affairs	617-432-8429 <a href="mailto:aclouse@hsph.harvard.edu">aclouse@hsph.harvard.edu</a>
<a href="#">Office of Diversity and Inclusion</a>	Zennon Black	Program Manager	617-432-5086 <a href="mailto:zblack@hsph.harvard.edu">zblack@hsph.harvard.edu</a>
<a href="#">Office of Education</a>	N/A	N/A	617-432-0090
<a href="#">Ombuds Office</a>	Melissa Brodrick	Ombudsperson	617-432-4041 <a href="mailto:Melissa_Brodrick@hms.harvard.edu">Melissa_Brodrick@hms.harvard.edu</a>
<a href="#">Registrar's Office</a>	Sidonie Xavier	Special Programs Manager (Master of Science)	617-432-1032 <a href="mailto:Registrar@hsph.harvard.edu">Registrar@hsph.harvard.edu</a>
<a href="#">Walking Escort Service</a>	N/A	N/A	617-432-1040

## 2.3 IMPORTANT ACADEMIC DATES 2018-2019

### **Chan School Academic Dates**

SM1 Summer Check-In/Orientation	Wednesday July 5, 2018
Summer Session	Thursday July 6, 2018 – Friday August 17, 2018
Summer 1	Thursday July 6, 2018 – Friday July 27, 2018
Summer 2	Monday July 30, 2018 – Friday August 17, 2018
Fall Enrollment begins	Wednesday August 16, 2018 1:00pm
Orientation	Monday August 27, 2018 – Friday August 31, 2018
Fall Session	Monday September 4, 2018 – Friday December 21, 2018
Fall 1	Monday September 4, 2018 – Friday October, 26, 2018
Fall 2	Monday October 29, 2018 – Friday December 21, 2018
Spring Enrollment begins	Thursday December 6, 2018 1:00pm
Winter Session	Tuesday January 2, 2019 – Friday January 25, 2019
Spring Session	Monday January 28, 2019– Friday May 12, 2019
Spring 1	Monday January 28, 2019– Friday March 15, 2019
Spring 2	Monday March 18, 2019– Friday May 12, 2019

*The most current and complete academic calendar can be found [here](#)*

*PhD PHS students should contact Bruce Villineau, [bvillineau@hsph.harvard.edu](mailto:bvillineau@hsph.harvard.edu), for specific dates.*

### **Chan School Add/Drop/Withdrawal Dates**

Summer 1	Add/Drop/Change: Monday July 12, 2018 11:59pm Withdrawal: Monday July 19, 2018 11:59pm
Summer 2	Add/Drop/Change: Wednesday August 2, 2018 11:59pm Withdrawal: Wednesday August 9, 2018 11:59pm
Fall 1	Add/Drop/Change: Friday September 13, 2018 11:59pm Withdrawal: Friday September 28, 2018 11:59pm
Fall 2	Add/Drop/Change: Friday November 8, 2018 11:59pm Withdrawal: Friday November 16, 2018 11:59pm
Spring 1	Add/Drop/Change: Friday February 7, 2019 11:59pm Withdrawal: Friday February 14, 2019 11:59pm
Spring 2	Add/Drop/Change: Friday April 4, 2019 11:59pm Withdrawal: Friday April 12, 2019 11:59pm

### Holidays & Events

July 4 (Wednesday)	Independence Day
September 3 (Monday)	Labor Day
October 8 (Monday)	Columbus Day
November 11 (Sunday)	Veteran's Day
November 21 – 23	Thanksgiving Recess
December 24 – 28	Winter Recess
December 31 (Monday) January 1 (Tuesday)	New Year's <i>observed</i>
January 21 (Monday)	Martin Luther King, Jr. Day
February 18 (Monday)	President's Day
May 29 & 30 (Wednesday & Thursday)	Commencement
May 27 (Monday)	Memorial Day

Subscribe to the Harvard Chan School's full [Academic Calendar](#).

### 3.1 DEGREES

The Department of Epidemiology offers 6 degree granting programs:

- [42.5 Credit Master of Science Summer-only](#) (SM1 SO)
- [42.5 Credit Master of Science Academic Year](#) (SM1 AY)
- [45 Credit Master of Public Health in Epidemiology](#) (MPH-EPI; blended online/on campus program)
- [80 Credit Master of Science in Computational Biology and Quantitative Genetics](#) (CBQG)
- [80 Credit Master of Science \(2 year program\)](#) (SM2)
- Doctor of Science (*enrolled last cohort 2015-2016*)
- [Doctor of Philosophy in Population Health Sciences](#) (Ph.D. PHS)

### 3.2 AREAS OF INTEREST

Students in the 42.5 Credit Master of Science Academic Year, 80 Credit Master of Science, or Ph.D. in Population Health Sciences with a field of study (f.o.s) in Epidemiology select one of the twelve Areas of Research Interest in which they complete a set of elective courses and conduct thesis or dissertation research. Some areas of interest have a list of suggested and/or required courses for degree completion. Please review your appropriate course list and contact the Assistant Director of Graduate Studies with any questions.

- [Cancer Epidemiology](#)
- [Cardiovascular Epidemiology](#)
- [Clinical Epidemiology](#)
- [Environmental and Occupational Epidemiology](#)
- [Epidemiologic Methods](#)
- [Epidemiology of Aging](#)
- [Infectious Disease Epidemiology](#)
- [Genetic Epidemiology and Statistical Genetics](#)
- [Neuro-Psychiatric Epidemiology](#)
- [Nutritional Epidemiology](#)
- [Pharmacoepidemiology](#)
- [Reproductive, Perinatal and Pediatric Epidemiology](#)

### 3.3 ADMISSIONS POLICIES AND REQUIREMENTS

Master of Science and Master of Public Health applicants apply online through the Schools of Public Health Application Service ([SOPHAS](#)). Ph.D. in Population Health Sciences applicants apply directly to the Graduate School of Arts and Sciences ([GSAS](#)). The Department of Epidemiology adheres to all Office of Admissions (Harvard Chan & GSAS) deadlines and policies, and review of applications is conducted by the Department. Admittance to a master's or Ph.D. program does not guarantee transfer or acceptance to another program within the school or department. *More information contact the Assistant Director of Graduate Studies.*

#### **Admission to the Ph.D. in Population Health Sciences**

##### Current Masters Students

Epidemiology master's candidates are welcome to apply to the Ph.D. in Population Health Sciences program during the normal admissions cycle. Students are required to submit an electronic application, along with all supplemental documents, through the Graduate School of Arts and Sciences ([GSAS](#)) during the admissions season and will be notified of the decision from the GSAS Office of Admissions.

80 Credit Master of Science students must complete all graduation requirements on schedule, even if they will be matriculating to the Ph.D. program at the end of the second year.

## Admission to the Master of Science

### Students adding or changing department

Students from other departments at the Harvard Chan School of Public Health may apply for dual major or apply to change department affiliation to Epidemiology. In either case, students must submit an abbreviated [Application Form](#), two new letters of recommendation, and a statement of purpose to the Harvard Chan School of Public Health Office of Admissions. All applications will be reviewed during the regular admissions cycle and students are notified of the department decision by the Office of Admissions.

## 3.4 ADVISORS

The Epidemiology Department appoints a faculty advisor who is working in an area related to the student's field of research interest. The advisor provides the student with academic guidance, information, and general assistance. For students in the ScD, Ph.D., SM2, and SM1 SO degrees the advisor may serve as research mentor on the thesis. The advisor and the advisee must meet at least twice during the academic year (timelines will vary depending on the program) to discuss the student's proposed course of study and any procedural or personal issues relevant to the student's academic experience. The advisor's approval on the student's enrollment record is required and indicates that the course in which the student has enrolled are appropriate for the successful completion of the program. If the student's advisor is not available, contact the Assistant Director of Graduate Studies. For more information on advising, refer to the [Harvard T.H. Chan School of Public Health Student Handbook](#).

### Request Change of Advisor

During a student's educational career, research interests may shift, requiring students to consider changing their originally assigned advisor to a new faculty member. Students must discuss the potential advisor change with the Assistant Director of Graduate Studies, his/her current and proposed new advisor prior to completing and submitting the Change of Advisor Request Form.

## 3.5 COURSE WAIVERS

### School-Wide Core Courses (EPI 201, 500)

Students who have previously completed a graduate-level epidemiology methods course can submit the required documents listed below to request a waiver. All documents should be submitted to Eric DiGiovanni, Assistant Director of Graduate Studies & Academic Affairs, Department of Epidemiology (Kresge 903). The Department of Epidemiology will determine if the previous coursework is equivalent to the Harvard Chan School-Wide Core Courses. *Please note this form is ONLY for the School-Wide Core Course Requirement.*

1. Waiver of Core Course Form – [Registrar's Office](#)
2. Transcripts documenting final grades in the epidemiologic methods course
3. Course description and syllabus

However, due to the strong integration between EPI 201 and EPI 202, Epidemiology students are **not advised** to waive EPI 201, even if they have taken an introductory Epidemiology course elsewhere. If you have questions, discuss with your advisor and the Assistant Director of Graduate Studies.

### School-Wide Core Courses BST 201, 202&203\*

Students who have previously completed a graduate-level biostatistics course can submit the required documents listed below to request a waiver. All documents should be submitted to Jelena Tillotson-Follweiler (SPH2 room 408), Manager of Academic Services. The Department of Biostatistics will determine if the previous coursework is equivalent to the Harvard Chan School-Wide Core Courses. *Please note this form is ONLY for the School-Wide Core Course Requirement.*

1. Waiver of Core Course Form – [Registrar's Office](#)
2. Transcripts documenting final grades in the Biostatistics course
3. Course description and syllabus

### EPI Department Required Courses:

Students wishing to request a waiver for other departmental required courses must submit the [EPI Requirement Waiver Form](#). This form should be submitted to the Assistant Director of Graduate Studies along with a copy of the syllabus and a transcript from the institution where the course was taken. The student and their academic advisor will be notified of the decision on the waiver and a copy will be placed in the student's academic file.

Physicians are not required to take the physiology or pathophysiology courses (EH 205 & EH 208). Such students should consult with their advisor at the start of their program and notify the Assistant Director of Graduate Studies. Other students with prior relevant coursework completed in these areas may petition to waive this requirement.

### Online Credit Limits for On-Campus Students

- Academic year (residential) SM1 EPI 42.5 credit students are limited to a maximum of 3.75 online credits in any semester and a maximum of 10 online credits overall out of the required 42.5 credits for the SM1 EPI 42.5 credit degree.
- Summer-only SM1 EPI 42.5 credit students are limited to a maximum of 6.25 online credits in any semester and a maximum of 11.25 online credits overall out of the required 42.5 credits for the SM1 EPI 42.5 credit degree.
- Academic year (residential) SM2 EPI 80 credit students are limited to a maximum of 3.75 online credits in any semester and a maximum of 10 online credits overall out of the required 80 credits for the SM2 EPI 80 credit degree.

Students are expected to audit the number of online courses they have enrolled in during their time in the program. The Department of Epidemiology will audit student transcripts twice per year to confirm they are not exceeding limits.

### 3.6 INDEPENDENT STUDY/TUTORIAL (EPI 300)

Enrollment for an independent study/tutorial represents an agreement between the student and a faculty member that the student will work on a specific project, which will be supervised by the faculty member, and must be approved by the student's advisor (and the supervising faculty member if not the advisor).

SM2 students may register for up to 5 credits of EPI 300 for thesis research and writing during the term in which the thesis is submitted. Doctoral students typically take 5 credits of EPI 300 for written exam preparation in the spring before taking the exam. Students considering enrolling in more than 5 credits for either of these purposes should consult with their advisor and the Assistant Director of Graduate Studies to ensure degree requirements are being met.

### 3.7 TEACHING CREDITS (EPI 311) & Training (For ScD, SM, and MPH students only, PhD student should consult the PHS handbook)

Teaching Assistant positions can either be for credit or compensation. Students interested in teaching credits should contact the Assistant Director of Graduate Studies. Students who serve as a Teaching Fellow are expected to attend school wide trainings and department micro-teaching sessions prior to being hired as a TF.

### 3.8 WINTER SESSION

All full-time SM2 and SM1 students are expected to participate in Winter Session activities, whether for credit or not for credit, on-campus or off-campus, in accordance with their individual needs and interests. **Winter Session is optional for part-time students.** The Epidemiology Department requires students to formulate a plan (or request an exemption) for the Winter Session and complete the Winter Session contract, which must be approved and signed by the advisor. The original signed copy of the form must be submitted by December 1st to the Assistant Director of Graduate Studies. Acceptable activities might include courses, tutorials/independent study projects (with faculty members who are willing to take on this role), travel tutorials, field placements, practica, community service projects, courses organized and taught by students, and skill-building workshops sponsored by administrative

departments of the school. Approved activities need not be located on campus.

International Summer-only students who are interested in enrolling in Winter Session courses should connect with the Harvard International Office to confirm Visa eligibility, as there are credit minimums in place during this term.

### 3.9 ADDITIONAL RECOMMENDATIONS

**\*Ph.D. students should also refer to the PHS Handbook for other degree requirements.**

Paper Writing: Students are encouraged to write additional papers even if they are not part of their doctoral thesis. This will strengthen their experience and serve as a record of productivity.

Authorship and Compensation: All of the usual authorship guidelines hold for students. Thus, if students are paid for work on a project or for data analysis, the resulting paper can still be part of the thesis. One potential difficulty is that students supported on an NIH training grant may work part-time on another NIH-funded project only if that other project is not formally part of their training. This would restrict use of some of that work for the doctoral thesis. Individual consultation with the advisor and training grant PI is clearly important in that situation.

Paying students for analyses does not justify their exclusion as an author if they are otherwise qualified, but authorship is not guaranteed. Payment for work and qualifying for authorship are independent.

Grant Writing: Students are strongly encouraged to gain experience in helping to write one or more grant proposals. Epi 205 (PhD and ScD students) provides explicit training in this area, as does the PHS Wednesday seminar program (see [PHS Handbook](#) for more details). Additional courses and seminars may be available through the School or University and are posted on the Office of Education [website](#).

Presentation Skills: Students are encouraged to present their findings at seminars, and national and international meetings to develop their presentation skills. Courses and seminars may be available for guidance and are posted on the website. Travel funds are sometimes available through training grants or research mentors, or other sources.

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## 4.0 FINANCIAL AID AND GRADUATE FUNDING

### 4.1 FINANCIAL AID AND GRADUATE FUNDING OVERVIEW

Funding for graduate programs can come from a variety of sources, including but not limited to:

- Departmental (partial awards on a yearly basis for new and returning students)
- Doctoral training grant stipend/tuition awards (NIH funding through department)
- Non-institutional awards (selective private/partial awards with specific criteria for eligibility)
- Loans and grants through the Office of Financial Aid
- Loans/scholarships that may be available from the student's home country or state, etc.

While the department makes every effort to secure as many funding opportunities for new and returning students, there is no guarantee that every student will receive funding. Students are encouraged to seek out as many different sources of funding as early as possible. Students are expected to notify the Assistant Director of Graduate Studies of any new funding sources.

### 4.2 TRAINING GRANTS

The Department of Epidemiology has a long tradition of excellence in research and training. Through support from the National Institutes of Health (NIH), pre- and post- doctoral fellowships are available in areas below. These fellowships are only available to citizens and permanent residents of the United States.

- Cardiovascular Epidemiology
- Cancer Epidemiology

- Environmental and Occupational Epidemiology
- Infectious Disease Epidemiology
- Psychiatric Epidemiology
- Maternal and Child Health/Children, Youth and Families Center of Excellence (*managed by MCH*)

#### Application and Eligibility

Trainee positions open when current trainees graduate or leave the program. Candidates are reviewed selectively by the faculty during the admissions process and throughout the year. Training grant support for graduate studies is typically awarded to doctoral students, except in some cases for masters students with medical degrees or other relevant doctoral training. For more information on fellowships available through the Department of Epidemiology visit the [Funding Page](#).

#### Student Responsibilities and Expectations

Any doctoral student receiving a fellowship funded by the NIH must cite the granting agency on any papers or presentations based on work done as part of the training and the principal investigator can provide the appropriate wording for the citation. Some training grants require students supported by that grant to answer the substantive questions in that area and/or take a set of required course; students are responsible for meeting these requirements. Trainees of NIH funded training grants are required to successfully complete a Responsible Conduct of Research offered by the Harvard Chan School during their first full year on the grant. For more information contact the Training Grant Manager (Rad Welch [rwelch@hsph.harvard.edu](mailto:rwelch@hsph.harvard.edu)).

#### Research Assistantship Restrictions

Students supported on an NIH training grant may be paid for part-time on another NIH-funded project only if that other project is not formally part of their training (for example, a physician on a training grant can do clinical evaluations for an unrelated study). Students who are funded through training grants should review all paid work options with the advisor and training grant PI before work has begun. For more information contact the Training Grant Manager (Rad Welch [rwelch@hsph.harvard.edu](mailto:rwelch@hsph.harvard.edu)). Paying students for analyses does not justify their exclusion as an author if they are otherwise qualified, but authorship is not guaranteed. Payment for work and qualifying for authorship are independent.

### 4.3 TEACHING FELLOW EXPERIENCE

Students are strongly encouraged to gain teaching experience by serving as teaching assistants. This will help consolidate the understanding of the material and provide valuable experience in teaching. Often, faculty who write reference letters are asked to comment on teaching experience and skills. Teaching assistant positions are available throughout the academic year and during the summer session. Teaching assistants for core epidemiology courses are typically limited to students who have passed the departmental written exam.

Responsibilities (designated by the instructor) may include: attending lectures and organizational meetings, grading homework and exams, designing assignments and answer keys, holding office hours, updating the course site and coordinating room bookings/media requests, and running labs/leading seminars. Teaching Assistants are expected to respect confidentiality and privacy of student information ([FERPA](#)). New Teaching Assistants should participate in training at the beginning of the academic year. Ph.D. students should refer to the PHS Handbook for teaching training and requirements.

## 5.0 SM1 - MASTER OF SCIENCE SUMMER-ONLY (42.5 CREDITS)

### 5.1 INTRODUCTION

Detailed below are the Epidemiology Department-specific requirements for the 42.5 credit Master of Science Summer-Only degree. These supplementary guidelines add to, but do not replace, the rules in the Harvard Chan Student Handbook and other listed epidemiology department requirements. The purpose of these guidelines is to standardize expectations across the masters students' experience while simultaneously maintaining a vital flexibility in the program. If a student or faculty is concerned that he/she is unable to meet these requirements, the Assistant Director of Graduate Studies should be consulted.

The degree program equips physicians or professionals with master's – level background in related disciplines with necessary quantitative skills. This program can be completed over 3 summer semesters with the option to extend the program beyond the third summer on the stipulation that the final Fall, Spring and Summer terms are dedicated to thesis credits only and no course enrollment is allowed beyond EPI 315. The 42.5 credit program is built on short courses of 1-3 weeks offered during the summer and winter academic sessions along with a few online options through the Master of Public Health in Epidemiology Blended Online/On-campus degree program. This program requires a thesis proposal and a mentor in a home institution to be eligible for admission, and a completed thesis is required for graduation. Students also are assigned a Harvard Chan mentor during their studies. The sequence of courses taken by a student to satisfy this degree's requirement depends on whether the student begins training with the [Summer Program in Clinical Effectiveness](#) or the [Summer Session for Public Health Studies](#).

### 5.2 COMPETENCIES

At the end of the program, the student will be able to:

- Demonstrate basic skills in core public health sciences of epidemiology and biostatistics.
- Develop comprehensive knowledge of the role of epidemiology as a basic science for public health and clinical medicine to provide a quantitative approach to addressing public health and clinical problems.
- Interpret descriptive epidemiologic results in order to develop hypotheses of possible risk factors for a disease.
- Critically evaluate public health and medical literature through knowledge gained of the basic principles and methods of epidemiology, including disease (outcome) measures, measures of association, study design options, bias, confounding, and effect measure modification.
- Develop a foundation for designing valid and efficient protocols to address public health and clinical problems.

### 5.3 REQUIREMENTS

**Required courses (20 credits):** Students begin this program with the Program in Clinical Effectiveness or with the Summer Session Program in Public Health Studies. The following table lists the courses that are required for this program. All core courses below are required to be taken for Ordinal Grading.

Courses	Started Program with	
	Program in Clinical Effectiveness	Summer Session in Public Health Studies
Intro Epidemiology	EPI 208	EPI 500 and EPI 202
Intro Biostatistics	BST 206 and (BST 207 or BST 208)	BST 202 and BST 203
Advanced Epidemiology: Analysis	EPI 236	
Advanced Epidemiology: Study Design	EPI 210	

Other Required Methods Courses	2.5 credits from methods courses offered in the summer or winter period or from an online course
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**Elective courses (10-17.5 credits):** Elective courses can be chosen from any course offered in the Summer Session or the Winter Session at the Harvard Chan School. Students in the Summer-Only, 42.5 Credit Master of Science Program are not permitted to take courses at the Harvard Chan School during the Fall or Spring semesters except for select online options. Fall online courses include:

- BIO 213 - Applied Regression for Clinical Research. This is a 5-credit online version of an on-campus course taught by Dr. John Orav. Discussions are ongoing to determine if the online version of this course will be offered in the fall semester. A final decision should be made by the summer. Anyone interesting in this course should check with Dr. Orav about details.
- EPI 526 - Analysis of Publicly Available Databases for Epidemiologic and Health Services Research
- EPI 527 - Design and Conduct of Trials in Preventive Medicine
- EPI 528 - Systematic Review and Meta-Analysis (on hold for fall, 2018)
- EPI 288 - Introduction to Data Mining and Risk Prevention

The last four courses are part of the MPH in Epidemiology (MPH-EPI) Program. Students in that program have priority for enrollment, but these online courses are also available to summer-only degree students if space permits. Summer-only students are only allowed to enroll in online courses for a max 6.5 credits per term and max of 11.25 credits for their degree program. Consult the Warisha Amin, Academics Coordinator, with questions or concerns. **\*International students who want to enroll in online credits must contact the Assistant Director or Graduate the Academic Coordinator.**

**Thesis Credits – EPI 315 (5–12.5 credits):** All students in the Master of Science Summer-only Program are required to complete a supervised research project (Master’s Thesis) prior to graduation. A potential proposal for a supervised research project is required with the application to the Harvard Chan School. The application should also include a letter from local mentor indicating that the mentor has read the proposal and agrees to supervise the student on the project - Students need to complete a thesis under the direction of a local mentor and Harvard faculty member. The Harvard mentor (ideally from the Department of Epidemiology) is identified by the end of the second summer of course work after discussion with the head of this program ([Dr. Fran Cook](#)). This Harvard mentor assists in the supervision of the thesis project and determines when the project is completed (typically when there is a manuscript suitable for publication). Students can enroll in thesis credits (EPI 315) at any time of the year and can spread these credits over multiple periods of the year. Students must enroll for at least 5.0 EPI 315 credits and have the option of enrolling for up to 12.5 credits. The student determines the number of EPI 315 credits in order to obtain the 42.5 credits that are needed to complete this degree.

At least 30.0 credits must be graded on an ordinal scale. EPI 315 credits are graded Pass/Fail. Therefore, it is strongly suggested that students carefully limit any courses they take for a Pass/Fail grade as it might result in being unable to meet the 30.0 ordinal-graded credit requirement.

#### 5.4 EPI 315 ENROLLMENT

Students should register for EPI 315 in the Summer session if the project is to be completed in time for a November graduation date. Enrollment in EPI 315 during Winter Session is required for a March graduation date or Spring Semester for a May graduation date.

Enrollment for EPI 315 credits is done through my.harvard. Once you have added the appropriate section to your shopping cart, select the red “Request” button. This will send a request to the faculty member to approve you for the course.

Students who do not register for at least 2.5 credits during the summer session must submit a [Leave of Absence](#)

form to the Academic Administrator in the Department of Epidemiology prior to Add/Drop for Summer 1. Full-time Status in the program is 7.5 credits per summer term or 15 credits for the full summer session. International students who require a visa should contact the Harvard International Office if they will not be enrolled in full-time credits on campus.

## 5.5 COURSES

Starting Program with	Program in Clinical Effectiveness	Summer Session in Public Health Studies
Intro Epi (Year 1)	EPI 208 (5 credits)	EPI 500 (2.5 credits) EPI 202 (2.5 credits)
Intro Biostat (Year 1)	BST 206 (2.5 credits) BST 208 (2.5 credits)	BST 202 (2.5 credits) BST 203 (2.5 credits)
Advanced Epi (Year 2)	EPI 236 (5 credits) EPI 210 (2.5 credits)	EPI 236 (5 credits) EPI 210 (2.5 credits)
Additional Requirements (Year 1 and/or Year 2)	2.5 credits from EPI 202 (2.5) or EPI 288 (2.5) or EPI 293 (2.5) or EPI 271 (1.25) or EPI 209 (1.25) or EPI 509 (1.25) or BST 214 (2.5) or BST 224 (2.5) or BST 501 (2.5) or BST 213 (5)	2.5 credits from EPI 288 (2.5) or EPI 293 (2.5) or EPI 271 (1.25) or EPI 209 (1.25) or EPI 509 (1.25) or BST 214 (2.5) or BST 224 (2.5) or BST 501 (2.5) or BST 213 (5)
Thesis Requirement (Year 1 and Year 2)	EPI 315 (5 - 12.5)	EPI 315 (5 - 12.5)
Electives (Year 1 and Year 2)	10 to 17.5 credits	10 to 17.5 credits

**Credit Requirement Note:** Students must earn a minimum of 30 **ordinal** credits in order to graduate.

## 6.0 SM1 - MASTER OF SCIENCE – ACADEMIC YEAR (42.5 CREDITS)

### 6.1 INTRODUCTION

Detailed below are the Epidemiology Department-specific requirements for the 42.5 credit Master of Science degree. These supplementary guidelines add to, but do not replace, the rules in the Harvard Chan student handbook and other listed epidemiology department requirements. The purpose of these guidelines is to standardize expectations across the masters students' experience while maintaining flexibility in the program. If a student or faculty is concerned that he/she is unable to meet these requirements, the Assistant Director of Graduate Studies should be consulted.

### 6.2 COURSE COMPLETION

When pursuing the Academic Year, 42.5 credit Master of Science degree, students typically begin in the Fall semester, beginning in the summer session is also possible. Students interested in the summer should discuss their course plan with the Assistant Director of Graduate Studies or the Academic Coordinator. Students are *not* required to write a thesis. Full-time students in this program must complete all required courses in **one academic year**. Academic year (residential) students are only allowed to enroll in online courses for a max 3.75 credits per term and max of 10 credits for their degree program. **\*International students who want to enroll in online credits must contact the Assistant Director or Graduate the Academic Coordinator.**

### 6.3 COMPETENCIES

At the end of the program, the student will be able to:

- Demonstrate basic skills in core public health sciences of epidemiology and biostatistics.
- Develop comprehensive knowledge of the role of epidemiology as a basic science for public health and clinical medicine to provide a quantitative approach to addressing public health and clinical problems.
- Interpret descriptive epidemiologic results in order to develop hypotheses of possible risk factors for a disease.
- Critically evaluate public health and medical literature through knowledge gained of the basic principles and methods of epidemiology, including disease (outcome) measures, measures of association, study design options, bias, confounding, and effect measure modification.
- Develop a foundation for designing valid and efficient protocols to address public health and clinical problems.

### 6.4 COURSE REQUIREMENTS

ALL EPI and BIOSTATS requirements listed below must be taken for an ORDINAL grade	
EPI 201 *	Introduction to Epidemiology (2.5)
EPI 202	Elements of Epidemiologic Research (2.5)
EPI 203	Study Design in Epidemiologic Research (2.5)
EPI 204	Analysis of Case-Control and Cohort Studies (2.5)
BST 201	Introduction to Statistical Methods (5)
BST 210 or 213	Analysis of Rates and Proportions (5) or Applied Regression for Clinical Research (5)
	Credit Requirements
42.5	Total Credits Earned
30/42.5	Ordinal Credits
10	Ordinal Credits in Epidemiology (minimum)
10	Ordinal Credits in Biostatistics (minimum)

\* Students beginning the program in the Summer can replace EPI 201 with either EPI 208 or EPI 500. In this case it is

advisable to consult with the instructor of EPI 202 regarding course preparation. Please contact the Assistant Director of Graduate Studies. \*If students are approved to waive EPI core courses based on prior study at HSPH or another institution, they are still required to complete 10 ordinal credits in Epi Coursework during their MS1 program.

## 7.0 MASTER OF PUBLIC HEALTH IN EPIDEMIOLOGY (45 CREDITS)

### 7.1 INTRODUCTION

The Master of Public Health in Epidemiology (MPH-EPI) Program combines the broad based competency training in core areas of Public Health with rigorous training in epidemiologic methods and applications. The MPH-EPI Program is a 45-credit program with one-third of the credits earned on campus and two-thirds of the credits earned online and in the field. The two-year schedule and online format allows students to complete a mentored and student-initiated MPH Practicum at their home site. Students in this program benefit from three modes of training: On campus, online, and in the field.

On campus training provides traditional face-to-face learning from Harvard faculty during three brief periods, and includes structured exercises to provide the basis for team building and peer education among the students. Online Training provides the flexibility for students to learn on their own schedule and at their selected pace. Discussion forums, group exercises, and scheduled web-based, video conferences provide the basis for continued interaction among students and faculty. In the field training provides the opportunity to apply skills obtained from on campus and online training to address a public health issue of interest, selected by the student, and under the mentoring supervision of a Harvard faculty member.

Through a series of required methods courses during the first year of the program, students in this program will have the same in-depth training in Epidemiology as the department's 42.5 Master of Science in Epidemiology. Required Public Health Core Courses offered at the beginning of the second year provide the breadth of training expected in all Masters of Public Health Program at the Chan School. Limited elective courses offered during the second year of this program provide the students additional training in targeted areas of interest. Students initiate an MPH practicum by the end of the first year, complete the practicum during the second year, and present the results of the practicum at the end of the second year.

Online instruction will include both asynchronous and synchronous formats. The asynchronous format allows students to view lecture videos and complete exercises on their own schedules. The synchronous component of each course utilizes scheduled small group workshops and assignments, mentored by faculty.

Please visit [MPH-EPI](#) for the full student handbook.

## 8.0 MASTER OF SCIENCE IN COMPUTATIONAL BIOLOGY & QUANTITATIVE GENETICS

### 8.1 INTRODUCTION

The Master of Science in Computational Biology and Quantitative Genetics (CBQG) is designed for students seeking both theoretical and practical training in the quantitative analysis and interpretation of large-scale, public health genomic data.

Students will receive training in Quantitative Methods, including:

- linear and logistic regression
- survival analysis
- longitudinal data analysis
- statistical computing
- clinical trials
- statistical consultation and collaboration
- epidemiology

Students will also gain a strong foundation in:

- modern molecular biology and genetics
- computer programming
- the use and application of tools for analysis of genomic data
- methods for integrative analysis
- meta-analysis of genes and gene function

The program, which is typically completed in 18-24 months, requires a minimum of 60 credits of course work and a supervised 10-20-credit Collaborative Research Thesis. The Collaborative Research Thesis is carried out at selected research institutions where trainees will have access to mentoring by experienced quantitative scientists with expertise in the analysis of genomic data. The thesis is presented in both oral and written form before a committee consisting of the thesis advisor and two additional program faculty.

For more detailed curriculum and academic information regarding this degree please see the [CBQG Student Handbook](#).

## 9.0 SM2 - MASTER OF SCIENCE (80 CREDITS – 2 YEARS)

### 9.1 INTRODUCTION

Detailed below are the Epidemiology Department specific requirements for the 80 credit Master of Science Program (SM2). These supplementary guidelines add to, but do not replace, the rules in the Harvard Chan School student handbook and other listed epidemiology department requirements. The purpose of these guidelines is to standardize expectations across the masters students' experience while simultaneously maintaining a vital flexibility in the program. If a student or faculty member believes these guidelines are not met, the Assistant Director of Graduate Studies should be consulted.

All students in the 80 credit Master of Science Program are required to complete a supervised research project (Master's Thesis) prior to graduation. The advisor may serve as research mentor on the thesis requirement or a different research mentor may be identified. Students should discuss research options with their advisor.

### 9.2 COMPETENCIES

At the end of the program, the student will be able to:

- Demonstrate basic skills in core public health sciences of epidemiology and biostatistics.
- Develop comprehensive knowledge of the role of epidemiology as a basic science for public health and clinical medicine to provide a quantitative approach to addressing public health and clinical problems.
- Interpret descriptive epidemiologic results in order to develop hypotheses of possible risk factors for a disease.
- Critically evaluate public health and medical literature through knowledge gained of the basic principles and methods of epidemiology, including disease (outcome) measures, measures of association, study design options, bias, confounding, and effect measure modification.
- Develop and apply quantitative skills to analyze and synthesize epidemiologic data related to public health issues.
- Apply knowledge of the physiology and pathophysiology of human disease to epidemiologic studies.
- Develop the skills to interpret the methods for disease screening.
- Develop substantive knowledge of the epidemiology of infectious and chronic disease and apply this knowledge to public health issues.
- Design an epidemiologic investigation (Master's Thesis) resulting in a publishable manuscript or grant application.

### 9.3 THESIS REQUIREMENTS AND GUIDELINES

In addition to the course requirements, candidates in the SM2 program must complete a master's thesis. This requirement can be fulfilled in one of two ways:

1. Presentation of a published or publishable manuscript on any topic in epidemiology.
2. Presentation of a feasible study protocol in the general form of an R01, R03, or R21 grant proposal application, or playing a major role in preparing such a grant for submission.

The text of the manuscript or protocol should be about 2500 - 3500 words in length and should not exceed 6000 words. The thesis must be the result of work done after matriculation in the department, but may also draw on earlier efforts. The paper may have several authors, but the student must legitimately be the first author. If a research protocol is submitted for the thesis requirement, the student need not be principal investigator, but must have a major role in preparing at least one section of the proposal. Students must present an acceptable plan for preparing the thesis to the academic advisor no later than the end of Fall 1 year 2. The Chair of the Department must also accept the plan. A timeline for submitting drafts and revisions of the thesis should be agreed upon by the advisor, or another Harvard faculty member whom the student and the advisor agree to designate as reader. The finished thesis must be approved by the advisor and both readers before being submitted to the Assistant Director

of Graduate Studies, along with the Thesis Submission Form two weeks prior to the last day of the Spring semester..

A good starting point for the thesis may be a term paper. Careful revision according to the original instructor's comments and expansion in consultation with that instructor or the advisor can lead to the finished product. There are no standard format requirements for the thesis.

Students may wish to dedicate an Independent Study (EPI 300) to this effort, but are not required to do so. For part-time SM candidates, the timeline applies to the 3<sup>rd</sup> and 4<sup>th</sup> years of study. Failure to submit the thesis by the deadline will result in non-compliance with a departmental requirement and will lead to ineligibility for graduation. In the past, students have had to postpone graduation when failing to meet the deadline.

Master's candidates who apply and matriculate into the Ph.D. PHS program may, in some instances, use the master's thesis as the basis for one of their doctoral thesis papers.

#### 9.4 THESIS Poster Presentation (opt-in)

During the spring semester of the candidate's second year in the program (4<sup>th</sup> year for part-time students), students will have an opportunity to present their research during the department's masters poster symposium. This symposium will be an opt-in event and is not required for graduation. More information will be provided by the Epi Academic team.

#### 9.5 THESIS TIMELINE

##### Year One

*Fall*-- Begin to consider the topic for master's thesis and consult with advisor.

*Spring*-- Choose designated reader.

##### Year Two

*Fall* -- Master's thesis topic formalized and submitted to the advisor for approval and then to the Department of Epidemiology Chair for approval. The submission to the Chair need only be **one page** outlining the paper's hypothesis in addition to describing the research methods and data to be employed. After receiving approval from your advisor email your proposal to the Assistant Director of Graduate Studies and cc your advisor. It must be submitted before the end of the Fall 1 term. The Chair will review all submissions and the Assistant Director of Graduate Studies will send an e-mail of approval or disapproval of the topic with revision suggestions if not approved. At this time you will also identify your thesis advisor and second reader. The second reader of your thesis will be charged with reading and grading your final product prior to your final submission in Spring of your second year.

*Spring*-- It is suggested that a draft of the thesis be submitted to the thesis advisor and second reader by the beginning of the Spring 2 term in order to allow time for review and revisions. This is only meant to be a guideline. The student, thesis advisor and second reader may develop an alternate timeline if that seems appropriate. If the advisor is not the reader, the reader's comments on the thesis must be submitted to the advisor. The thesis and approval form must be submitted to the Assistant Director of Graduate Studies, electronically or in hard copy, two weeks prior to the final day of classes. The Epi Masters Poster Symposium will take place during the Spring term, early in May.

## 9.6 COURSE REQUIREMENTS

ALL EPI and BIOSTATS requirements listed below must be taken for an ORDINAL grade	
EPI 201	Introduction to Epidemiology (2.5)
EPI 202	Elements of Epidemiologic Research (2.5)
EPI 203	Study Design in Epidemiologic Research (2.5)
EPI 204	Analysis of Case-Control and Cohort Studies (2.5)
EPI 289	Causal Inference (2.5)
EPI 507	Genetic Epidemiology (2.5)
BST 201	Introduction to Statistical Methods (5)
BST 210 or BST 213	Applied Regression Analysis (5) or Applied Regression for Clinical Research (5)
Strongly Recommended Courses	
EPI 215	Advanced Topics in Case Control and Cohort Studies (2.5)
EPI 515	Measurement Error and Misclassification for Epidemiologists (1.25)
EPI 207	Advanced Epidemiologic Methods (2.5)
EPI 247	Epidemiologic Methods Development (2.5)
BST 223	Applied Survival Analysis & Discrete Data (5)
BST 226	Applied Longitudinal Analysis (5)
Credit Requirements	
80	Total Credits Earned
60/80	Ordinal Credits
30	Epidemiology Credits
25/30	Ordinal Epidemiology Credits
15	Ordinal Biostatistics Credits

Academic year (residential) SM2-EPI 80 credits students are limited to a maximum of 3.75 online credits in any semester and a maximum of 10 online credits overall out of the required 80 credits for the SM2-EPI 80 credits. **\*International students who want to enroll in online credits must contact the Assistant Director or Graduate the Academic Coordinator.**

## 9.7 SAMPLE SCHEDULE

Year One   Fall Semester		
EPI 201	Introduction to Epidemiology (2.5)	Fall I
EPI 202	Elements of Epidemiologic Research (2.5)	Fall II
BST 201	Introduction to Statistical Research (5)	Fall
Electives	10 Credits	
Spring Semester		
EPI 204	Analysis of Case-Control and Cohort Studies (2.5)	Spring I
EPI 289	Causal Inference (2.5)	Spring I
EPI 203	Study Design in Epidemiologic Research (2.5)	Spring II
BST 210	Applied Regression Analysis (5)	Spring

<b>Electives</b>	7.5 credits	Spring
<b>THESIS</b>	Begin work on topic/research	Spring
<b>Year Two   Fall Semester</b>		
<b>EPI 507</b>	Genetic Epidemiology (2.5)	Fall II
<b>Electives</b>	17.5 credits	Fall
<b>THESIS</b>	Work on thesis	Fall
<b>Spring Semester</b>		
<b>Electives</b>	20 credits	Spring
<b>THESIS EPI 300</b>	Work on thesis	Spring I
<b>THESIS</b>	Submit to Advisor or Reader at the beginning of Spring I for review/edits	Spring I
<b>THESIS</b>	Submit thesis and approval form to Assistant Director of Graduate Studies	Spring II

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## 10.0 Ph.D. PHS – Doctor of Philosophy in Population Health Sciences

### 10.1 INTRODUCTION

The overarching goal of this program is to foster scholarship in developing new and innovative ideas in population health sciences, improve communication of those ideas effectively, and understand changing health needs in different societies and contexts. Overall, “Population Health” captures the social and biological dimensions of human groups. It also demonstrates the common perspective that underlies the Fields of Study with ‘population’ as the object of study, target of inference, intervention, and improvement. Thus, Population Health Sciences presents an umbrella framework to reflect the general changes in our understanding of population health worldwide, to answer a call for multidisciplinary researchers in the health sciences, and also to respect the need for depth in a particular area of expertise.

The Program includes five Fields of Study: **Epidemiology, Environmental Health, Global Health and Population, Nutrition, and Social and Behavioral Sciences**. Students choosing Epidemiology as their Field of Study follow the general PHS courses as well as a sequence of courses designed to develop their knowledge of epidemiologic methods and substantive fields. Based on the selected area of specialization, students complete a set of elective courses and conduct thesis or dissertation research. Some areas of interest have a list of suggested and/or required courses for degree completion. Please review your appropriate course list and contact the Assistant Director of Graduate Studies with any questions. For more detailed curriculum and academic information regarding this degree please see the [Population Health Sciences Handbook](#) or contact the Assistant Director of Graduate Studies Department of Epidemiology.

### 10.2 COMPETENCIES

At the end of the program, the student will be able to:

- Demonstrate basic skills in core public health sciences of epidemiology and biostatistics.
- Develop comprehensive knowledge of the role of epidemiology as a basic science for public health and clinical medicine to provide a quantitative approach to addressing public health and clinical problems.
- Interpret descriptive epidemiologic results in order to develop hypotheses of possible risk factors for a disease.
- Critically evaluate public health and medical literature through knowledge gained of the basic principles and methods of epidemiology, including disease (outcome) measures, measures of association, study design options, bias, confounding, and effect measure modification.
- Develop a foundation for designing valid and efficient protocols to address public health and clinical problems.
- Apply knowledge of the physiology and pathophysiology of human disease to epidemiologic studies.
- Apply quantitative skills to analyze and synthesize epidemiologic data related to public health issues.
- Apply knowledge of the physiology and pathophysiology of human disease to epidemiologic studies.
- Apply knowledge of classical and modern epidemiologic methods to study design.
- Develop the skills to interpret the methods for disease screening.
- Develop substantive knowledge of the epidemiology of infectious and chronic disease and apply this knowledge to public health issues.
- Design an epidemiologic investigation (Dissertation) resulting in a publishable manuscript or grant application.

### 10.3 REQUIRED COURSES

PHS Required courses			
Course Number	Course Name	Timing	Number of Credits (GSAS)
PHS 2000 A	Quantitative Research Methods in PHS	Fall	5 credits
PHS 2000 B	Quantitative Research Methods in PHS	Spring	5 credits
PHS 2000 - Lab	Quantitative Research Methods in PHS	Full Year	N/A
SBS 506	History, Politics, & Public Health	Fall One	2 credits
EPI 201	Introduction to Epidemiology	Fall One	2 credits
EPI 202	Elements of Epidemiological Research	Fall Two	2 credits
HPM 548 (or approved equivalent)	Responsible Conduct of Research	Fall Two	1 credit
FoS-Required Courses	Varies	Varies	Varies
PHS Wednesday Evening Seminar	PHS Wednesday Night Seminar	Full-Year	N/A

Field of Study- EPI Required Courses	
<b>ALL EPI and BIOSTATS requirements listed below must be taken for an ORDINAL grade</b>	
EPI 203	Study Design in Epidemiologic Research (2.5)
EPI 204	Analysis of Case-Control and Cohort Studies (2.5)
EPI 205	Practice of Epidemiology (2.5)
EPI 207	Advanced Epidemiologic Methods (2.5)
EPI 247	Epidemiologic Methods Development (2.5)
EPI 289	Causal Inference (2.5)
EPI 507	Genetic Epidemiology (2.5)
BST 223 or BST 226	Applied Survival Analysis and Discrete Data Analysis (5) or Applied Longitudinal Analysis (5)
EH 205	Human Physiology (5)
EH 208	Pathophysiology of Human Disease (2.5)
SBS 506	History, Politics and Public Health (2.5)
Strongly Suggested Courses	

EPI 215	Adv. Topics in Case-Control and Cohort Studies (2.5)
EPI 515	Measurement Error and Misclassification for Epidemiologists (1.25)

#### 10.4 WRITTEN EXAM OVERVIEW

The written examination is divided into two portions. The first session covers methods, including aspects of study design, analysis, and causal inference. As a guideline, a student should not attempt this exam until she or he has completed all of the courses below, but the questions are cross-cutting rather than being focused within material covered in individual courses.

Courses to complete before attempting the Written Exam	
BST 201	EPI 204
PHS 2000A/B	EPI 207
BST 223 or BST 226	EPI 247
EPI 201 and EPI 202	EPI 289
EPI 203	EPI 507

The second session covers substantive knowledge of epidemiology. Candidates are required to answer 5 questions in topic areas based on the department's [twelve areas of interest](#). Substantive courses in the department related to the twelve areas of interest serve as the foundation for the content of the questions, but questions do not depend on material unique to a given class. Candidates are also encouraged to keep current with important recent developments in the topics they plan to select by regularly reading the major journals.

#### 10.5 PROCEDURE FOR THE EXAMINATION

The examination is offered once a year in late May. Candidates are asked to notify the Assistant Director of Graduate Studies of their intention to sit for the exam prior to spring break. Doctoral students from other departments must request to sit for the exam in writing. Some training grants may require students supported by that grant to answer the substantive questions in that area; students are responsible for meeting this requirement.

The examination is closed book. Calculators are provided for use during the exam. Prior to the exam, copies of previous years' exams will be available for review. Keep in mind that each year's exam is different and that previous exams should only be utilized to assist you in practicing to take this type of an exam.

The written examination is graded blindly. Once the exams are graded, the decision of pass or fail of the written exam represents the consensus of the faculty, and in borderline cases may take into account the student's overall academic performance. The department typically notifies students in writing of the results two weeks after the exam.

Any student who fails the written exam is allowed, subsequent to a discussion between the student, the student's advisor and the Chair, a second and final attempt during the next examination period. The methods and substantive portions are graded separately; students who pass one portion but not the other on the first attempt are only required to retake the portion that they failed. Occasionally students with marginal performance or specific areas of weakness will be awarded a *conditional* pass on the written examination; in this case, additional coursework and/or further examination during the oral examination will be required.

#### 10.6 OTHER REQUIREMENTS & ADDITIONAL RECOMMENDATIONS

**\*Ph.D. students should also refer to the PHS Handbook for other degree requirements.**

**Teaching Fellowship:** Doctoral students in the PhD in Population Health Studies (PHS) with a field of study in Epidemiology must serve as a Teaching Fellow (TF) for at least 10 HSPH credits, which is the equivalent of 8 GSAS credits, by the end of their program. Out of the total 10 HSPH credits required, 5 will count toward the GSAS requirement of 4 unpaid GSAS teaching credits, and will be registered under Time-T through GSAS. The remaining

5 HSPH credits will be paid through the Department of Epidemiology. This requirement can be completed by serving as a TF for the EPI courses listed below. Other courses that have a teaching component (e.g., lab section or weekly office hour) may also be counted with approval from the Assistant Director for Graduate Studies for the Department of Epidemiology.

PHS 2000 A/B	EPI 293
EPI 201	EPI 233
EPI 202	ID 201
EPI 203	ID 207/208
EPI 204	EPI 208
EPI 215	EPI 522
EPI 207	EPI 524
EPI 210	EPI 525
EPI 202 (SU)	EPI 526
EPI 500	EPI 527
EPI 236	EPI 528
EPI 289	

Paper Writing: Students are encouraged to write additional papers even if they are not part of their doctoral thesis. This will strengthen their experience and serve as a record of productivity.

Grant Writing: Students are strongly encouraged to gain experience in helping to write one or more grant proposals. Epi 205 provides explicit training in this area, as does the PHS Wednesday seminar program (see [PHS Handbook](#) for more details). Additional courses and seminars may be available through the School or University and are posted on the Office of Education [website](#).

Presentation Skills: Students are encouraged to present their findings at seminars, and national and international meetings to develop their presentation skills. Courses and seminars may be available for guidance and are posted on the website. Travel funds are sometimes available through training grants or research mentors, or other sources.

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## 11.0 INTERDISCIPLINARY CONCENTRATIONS & COURSE LISTINGS

### 11.1 INTERDISCIPLINARY CONCENTRATIONS

Degree candidates have the option of pursuing interdisciplinary concentrations in which their home departments participate. These concentrations are non-degree programs designed to deepen students' experience in academic or professional areas aligned with their career goals. Learn more about these concentrations through the Interdisciplinary Concentration [webpage](#).

- [Women, Gender and Health](#)
- [Epidemiology of Infectious Disease](#)
- [Maternal and Child Health/Children, Youth, and Families](#)
- [Obesity Epidemiology and Prevention](#)
- [Public Health Leadership](#)
- [Humanitarian Studies, Ethics, and Human Rights](#)
- [Nutrition and Global Health](#)

### 11.2 Course Listing

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## 12.0 STUDENT RESOURCES AND INFORMATION

### 12.1 STUDENT GROUPS

#### Epidemiology Department Student Advisory Committee

This student committee was formed to serve as a liaison with the Chair of the Department and the Assistant Director of Graduate Studies. The goals of the committee are to provide feedback and to discuss relevant issues on behalf of the EPI student body. The committee consists of representatives from each degree program. Members of the committee, with the exception of SM1 students, will serve for a 2-year period.

Please feel free to bring any concerns that you would like addressed by the [Student Advisory Committee](#) to the Chair and Deputy Chair of the Department, the Assistant Director of Graduate Studies or any of the student representatives. Students interested in serving on the committee should submit their names to any current SAC member, the Epi Graduate Studies Coordinator or the Assistant Director of Graduate Studies.

#### John Graunt Society

The John Graunt Society is a doctoral student-led organization sponsored by the Department. The Society is open to all Epidemiology doctoral students and meets regularly throughout the year. The goals of the Society are to provide a supportive forum for doctoral students to share and discuss their ongoing research and graduate student life. The Society has organized events including seminars in which students can practice and receive feedback on presentations for conferences and thesis defenses, and special educational seminars on programming in SAS and R. The group also sponsors social activities that encourage development of the Epidemiology doctoral student community.

#### Masters Group

This master's student-led organization is sponsored by the Department and is open to all masters level students in the department. The mission of the group is to provide masters students with an inclusive and meaningful cohort experience during their time in the program. Talk about the poster symposium, social activities, & career panels?

### The Epidemiology Peer Mentor Buddy System

Each year new students to the masters and Ph.D. programs are paired with a current student who takes time to answer questions and assist with concerns related to the new student's academic career. Peer mentors provide guidance as new students become acclimated to the Harvard Chan School environment. These student pairs are encouraged to maintain communication and participate in department social events throughout the year. Contact the Assistant Director of Graduate Studies for more information.

### Harvard Chan Student Government

The Student Coordinating Committee (SCC) is the Harvard T.H. Chan School of Public Health's student government. SCC works closely with faculty and administration on important school-wide issues. The Student Government also organizes and sponsors social, educational, and community service events. Visit their [webpage](#) to learn how you too can become involved. For GSAS, visit [Graduate Student Council](#) and contact the PHS Office.

## 12.2 STUDENT & DEPARTMENTAL GROUPS

### Green Team

The Department of Epidemiology is interested in energy conservation and ecological preservation. A small committee is coordinated each year and participates in events to raise money, as well as awareness. The general expectations would be coming to a monthly meeting (when possible) and volunteering occasionally for events (helping people compost, etc.) Students interested in joining the committee can contact the Graduate Studies Coordinator. For a full listing of Student Organization, visit Office for [Student Affairs-Student Organizations](#).

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## 13.0 DEPARTMENT RESOURCES

*Every effort is made to provide Epidemiology students with physical and academic resources to support academic goals. We strive to make your time in this department and enriching and rewarding experience.*

### **The [EpiCenter](#) Newsletter**

The engaging Epidemiology Department Newsletter is a resource for applicants, students, alumni and faculty to stay up-to-date on current activities, awards, and epidemiology-related news. All are invited to submit news of interest to [Coppelia Liebenthal](#), Graduate Studies Coordinator and Communications Committee Chair.

### **Copying/Fax/Scanning**

Copy, Fax and Scanning capability is provided on a very limited basis in the department. Large print jobs should be sent to the print shop so the machine is available during office hours. Students can check with the Office Manager for usage.

### **Copyright and Reproduction of Articles/Publications for research conducted on campus**

Students are advised to comply with all school policies regarding copying of articles and journal publications whether they are published on or off-campus.

### **Mailboxes and Communication**

Epidemiology doctoral and 80 credit masters students who are here for two years or more are allocated mailboxes

in the department.

Harvard e-mail addresses will be used for communication from the Epidemiology department as well as regular mail. Students are responsible for checking all allocated mailboxes and e-mail for information.

### **Desk Space for Doctoral Students**

Desk Space, in Kresge rooms 906 and 911, is currently assigned to doctoral and post-doctoral students. Doctoral students will only be considered after passing the departmental written exam. Desks usually become available when students graduate or find alternative arrangements.

### **Graduate School Funding**

The Epidemiology Department can assist new and current students with inquiries about departmental and training grant [funding opportunities](#). Inquiries about loans, scholarships and awards can be directed to the [Office of Student Financial Services](#).

### **Securing Basic Needs**

Any students who faces challenges securing their food or housing and believes that this may affect their performance in the program is urged to contact the Office of Students Affairs (OSA) for support. Furthermore, please notify the Epi Academic Team, if you are comfortable in doing so, to enable us to provide additional support or resources.

### **Room Reservations**

Epidemiology students are welcome to use the library (Kresge, Room 907) for group meetings or study sessions. Reservation can be made in advance by calling 617.432.7973. Students may contact [Warisha Amin](#) for more information. Before requesting space please visit [Bookit](#) to check availability.

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## **14.0 ALUMNI SERVICES**

Alumni are valuable to the department and are invited to stay connected to the department and faculty. During the graduation process, the department invites your feedback concerning our curriculum, as well as your overall experience in the department through a survey. Career support and advice is available through the [Career Advancement](#) site.

### **Post-Doctoral Services**

Post-Doctoral Fellows and Researchers are a vital part of our department's success. Post-doctoral research fellows are trainees working in an apprenticeship mode in preparation for a career as scientific professionals. Post-doctoral fellows are provided with mentors and assume responsibility for the development of their research and careers. Upon seeking advice of the mentor and other faculty members, fellows perform required research.

[The Harvard Chan Postdoctoral Association](#) is a great resource for Postdoc Fellows. Here you will find information on PDA initiatives, professional development, benefits and useful links. If you have any questions or comments, please do not hesitate to [contact us](#).

### **Harvard Chan Student-Community Action Partnership**

Interested in exploring, working and taking action with Boston communities on health and social justice-related issues? [Harvard Chan S-CAP](#) is committed to increasing the presence of the Harvard Chan School in the surrounding Boston area and engaging with social justice issues which impact local communities, especially those affecting health. Contact [hsph.scap@gmail.com](mailto:hsph.scap@gmail.com) to become involved.

## Student Life at Harvard Chan

Many academic, cultural, and social activities take place for students at the school, at Harvard and in Boston. Please explore the Harvard Chan [Student Life Webpage](#) to find out what's going on in our community.

## Staying connected

Alumni, Post-Doctoral Researchers associated with the Epidemiology department as well as the School of Public Health, are encouraged to stay connected to the department by:

- [Volunteering time](#) to speak with prospective applicants about your experiences
- Sharing your research and experiences at scheduled [seminars and workshops](#)
- Applying for pre/post-doctoral fellowships and training grants- [Fellowships and Funding](#)
- Contributing to the departmental newsletter [EpiCenter](#)
- Keeping us informed of your research and career achievements- [Contact Us](#)
- [Updating](#) your contact information to stay tuned on job and funding opportunities