

HARVARD SCHOOL OF PUBLIC HEALTH
DEPARTMENT OF EPIDEMIOLOGY

STUDENT HANDBOOK
2008-2009

Epidemiology, the study of the frequency, distribution, and determinants of disease in humans, is a fundamental science of public health. Epidemiologists use many approaches, but the ultimate aim of epidemiologic research is the prevention or effective control of human disease.

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SECTION ONE: GENERAL ACADEMIC INFORMATION

INTRODUCTION

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 School of Public Health Student Handbook*. Epidemiology students are responsible for general knowledge of, and adherence to, the policies and requirements described in the Official Register and the departmental handbook. In the instance of any apparent conflict, policies and official requirements of the School as set forth in the *Harvard School of Public Health Catalog* (<http://www.hsph.harvard.edu/catalog/pdf/catalog.pdf>) and the *Harvard School of Public Health Student Handbook* (<http://www.hsph.harvard.edu/registrar/handbook/index.shtml>) will take precedence.

GENERAL INFORMATION

Advisors

The Epidemiology Department appoints a faculty advisor for each student, seeking to match the student with an advisor who is working in an area related to their field of interest. The advisor provides the student with academic guidance, information, and general assistance. The advisor and the advisee must meet at least twice during the academic year (before the start of the fall and spring semesters) to discuss the student's proposed course of study and any procedural or personal issues relevant to the student's academic experience. For more information on advising refer to the *HSPH student handbook*.

Course Waivers

- **School-Wide Core Courses (EPI200 or EPI201):** Students wishing to waive either EPI200 or EPI201 must submit a *Waiver of Core Course Form*, signed by the relevant instructor. Students must present a transcript and a copy of the course description to the Academic Service Coordinator to verify appropriate coursework. If the request to waive a core course is approved, the student will not be required to enroll in the core course.
- **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 Academic Service Coordinator 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.

Independent Study Contracts/Tutorials (EPI300)

An independent study contract/tutorial signifies 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. To ensure monitoring of proper and timely completion of the independent work, a signed copy of the contract must be submitted to the Academic Service Coordinator in Kresge 908. For more information on independent studies please refer to the *HSPH student handbook*.

WinterSession

In general all full-time students are expected to participate in WinterSession activities, whether for credit or not for credit, on-campus or off-campus, in accordance with their individual needs and interests. WinterSession is optional for part-time students.

The Epidemiology Department requires that each full-time student formulate a plan (or request an exemption) for the WinterSession. All full-time students must complete the WinterSession contract, which must be approved and signed by the advisor. The original signed copy of the form must be submitted by December 1 to the Academic Service Coordinator in Kresge 908. Questions or concerns can be brought to the department chair for adjudication.

Acceptable activities might include courses, tutorials/independent study projects (with faculty members who are willing to take these on), 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, or even in the United States.

CALENDAR 2008-2009

FALL: SEPTEMBER 2 – DECEMBER 19	
<i>Fall 1: September 2 -October 24</i>	<i>Fall 2: October 27 - December 19</i>
WINTERSESSION: JANUARY 5 – JANUARY 28	
SPRING: February 2 – MAY 22	
<i>Spring 1: February 2 – March 20</i>	<i>Spring 2: March 30 – May 22</i>
COMMENCEMENT: JUNE 4	

For a complete academic calendar, including school holidays and course deadlines, refer to the *HSPH student handbook* or visit the Registrar's Office website at <http://www.hsph.harvard.edu/registrar/>.

SECTION TWO: MASTER'S STUDENT INFORMATION

MASTER'S OF SCIENCE IN EPIDEMIOLOGY (42.5-credit summer only program)

The summer only (42.5-credit) SM is designed primarily for clinicians and other health care professionals who wish to develop the quantitative and analytic skills needed for clinical research. The sequence of courses taken by a student to satisfy this degree's requirements depends on whether the student begins training with the Summer Program in Clinical Effectiveness or with the Summer Session for Public Health Studies.

Requirements:

Program in Clinical Effectiveness	Summer Session for Public Health Studies
EPI208 (5 credits)	EPI500 (2.5 credits)
BIO206 (2.5 credits)	EPI202 (2.5 credits)
BIO207/BIO208 (2.5 credits)	BIO202 (2.5 credits)
	BIO203 (2.5 credits)
EPI236 (5 credits)	EPI236 (5 credits)
EPI202 (2.5 credits) or BIO214 (2.5 credits) or EPI295 (2.5 credits)	BIO214 (2.5 credits) or EPI295 (2.5 credits)
BIO224 (2.5 credits) or BIO501 (2.5 credits)	BIO224 (2.5 credits) or BIO501 (2.5 credits)
EPI315 (5 – 12.5 credits)	EPI315 (5 – 12.5 credits)
Electives (10 –17.5 credits)	Electives (10-17.5 credits)
Total 42.5 credits	Total 42.5 credits

Elective Courses:

Elective courses can be chosen from any course offered in the Summer Session or the Winter Session at HSPH. Students in the Summer-Only MS1 in Epidemiology are not allowed to take courses at HSPH during the Fall or Spring Semesters.

Supervised Research Project (EPI315):

A potential proposal for a supervised research project is required with the application to HSPH. The application should include a letter from local mentor indicating that the mentor has read the proposal and agrees to supervise the student on the project. In addition, a Harvard faculty member (ideally from the Department of Epidemiology) is identified by the end of the second summer of course work. The Harvard supervisor assists in the supervision of the student on the research project and determines when the project is completed (typically when there is a manuscript suitable for publication).

Harvard University has three graduations dates: November, March, and June. Students should register for the supervised research projects (EPI315, 5- 12.5 credits) in the Summer Session if the

project will be completed in time for a November graduation date. Students should register for EPI315 in the Winter Session if the project will be completed in time for a March graduation date and register in the Spring Semester if the project will be completed in time for a June graduation date.

Sample Master’s of Science Schedule (42.5-Credit, Initiating with Summer Session for Public Health Studies)

Summer (Year One)

Summer 1	Summer 2
EPI500 Fundamentals of Epidemiology	EPI 202 Elements of Epidemiologic Research
BIO202 Principles of Biostatistics I	BIO203 Principles of Biostatistics II

Summer (Year Two)

Summer 1	Summer 2
EPI236 Analytical Aspects in Clinical Epidemiology	EPI295 Pharmacoepidemiology: An Introduction or BIO214 Principles of Clinical Trials
Electives	BIO224 Survival Methods in Clinical Research or BIO501 Linear and Longitudinal Regression

Summer (Year Three)

Summer 1	Summer 2
Electives	Electives
EPI315 Research in Clinical Epidemiology (5-12.5 Credits)	

Sample Master’s of Science Schedule (42.5-Credit, Initiating with Summer Program in Clinical Effectiveness)

Summer (Year One)

Summer 1	Summer 2
EPI208 Introduction to Clinical Epidemiology	
BIO206 Introductory Statistics for Medical Research	BIO207 Statistics for Medical Research II or BIO208 Statistics for Medical Research, Advanced
5 Credits of Electives from other Summer Course Offerings	

Summer (Year Two)

Summer 1	Summer 2
EPI236 Analytical Aspects in Clinical Epidemiology	EPI202 Elements of Epidemiologic Research or EPI295 Pharmacoepidemiology: An Introduction or BIO214 Principles of Clinical Trials
	BIO224 Survival Methods in Clinical Research or BIO501 Linear and Longitudinal Regression
5 Credits of Electives from other Summer or Winter Course Offerings	
EPI315 Research in Clinical Epidemiology (5-12.5 Credits)	

**The second year of course work can be done part-time over 2 consecutive summers.*

For more information on the summer-only program visit our website at <http://www.hsph.harvard.edu/epidemiology/>.

MASTER'S OF SCIENCE IN EPIDEMIOLOGY (42.5-credit)

The two-semester (42.5-credit) SM provides students with basic skills in epidemiologic and quantitative methods in computing, in preparation for research or academic careers. The two-semester program is open to applicants with a medical degree or master's-level background in biology.

Required courses:

EPI201	Introduction to Epidemiology
EPI202	Elements of Epidemiologic Research
EPI204	Analysis of Case-Control and Cohort Studies
BIO201	Introduction to Statistical Methods
BIO210	Analysis of Rates & Proportions
<u>or</u> BIO213	Applied Regression for Clinical Research

Strongly recommended courses (not required for 2008-2009):

EPI203	Study Design in Epidemiologic Research
EPI215	Advanced Topics in the Analysis of Case-Control and Cohort Studies

The remainder of the schedule reflects areas of special interest and may include supervised research.

Credit Requirements

42.5 Total credits earned
 30/42.5 credits are ordinal
 10 ordinal credits in Epidemiology
 10 ordinal credits in Biostatistics

Sample Master's of Science Schedule (42.5-credit)

Fall 1	Fall 2
EPI201 Introduction to Epidemiology	EPI202 Elements of Epidemiologic Research
BIO201 Introduction to Statistical Methods	
10 Credits of Electives (<i>Courses related to area of interest</i>)	
Spring 1	Spring 2
EPI204 Analysis of Case-Control and Cohort Studies	EPI203 Study Design in Epidemiologic Research EPI215 Advanced Topics in the Analysis of Case-Control and Cohort Studies
BIO210 Analysis of Rates and Proportions	

10 Credits of Electives (<i>Courses related to area of interest</i>)

MASTER'S OF SCIENCE IN EPIDEMIOLOGY (80-credit)

The master's programs provide students with basic skills in epidemiologic and quantitative methods and in computing, in preparation for research and academic careers. The program is primarily intended for students who expect to continue toward a doctoral degree. The four-semester (80-credit) SM program is designed for individuals who hold a bachelor's degree and have a strong background in biology and mathematics. In addition to epidemiology and statistics courses, students study the basic medical sciences and the biological aspects of public health problems.

Required courses

EPI201	Introduction to Epidemiology
EPI202	Elements of Epidemiologic Research
EPI204	Analysis of Case-Control and Cohort Studies
EPI289	Causal Inference
BIO201	Introduction to Statistical Methods
BIO210	Analysis of Rates & Proportions
<u>or</u> BIO213	Applied Regression for Clinical Research

Strongly recommended courses (not required for 2008-2009):

EPI203	Study Design in Epidemiologic Research
EPI215	Advanced Topics in the Analysis of Case-Control and Cohort Studies

Recommended Non-Epidemiology Courses

<i>BIO210</i>	<i>Analysis of Rates and Proportions</i>
<i>BIO211</i>	<i>Regression and Analysis of Variance in Experimental Research</i>
<i>BIO213</i>	<i>Applied Regression for Clinical Research</i>
<i>BIO222</i>	<i>Basics of Statistical Inference</i>
<i>BIO223</i>	<i>Applied Survival Analysis & Discrete Data</i>
<i>BIO226</i>	<i>Applied Longitudinal Analysis</i>
<i>EH205</i>	<i>Human Physiology</i>
<i>GCD210</i>	<i>Introduction to Cancer Biology</i>
<i>EH504</i>	<i>Principles of Toxicology</i>
<i>ID208</i>	<i>Pathophysiology of Human Disease</i>

Credit Requirements

80 Total credits earned
60/80 credits are ordinal
30 credits in Epidemiology (25 must be ordinal)
15 ordinal credits in Biostatistics

In addition to the course requirements, candidates in the four-semester SM program must complete a master's thesis. Master's candidates who apply and matriculate in the EPI doctoral

program can utilize the master's thesis as one of their doctoral thesis papers.

MASTER'S THESIS GUIDELINES:

Candidates for the two-year master's program in epidemiology must demonstrate a proficiency in key aspects of acquisition, analysis or presentation of epidemiological data. 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 grant 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 must 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 your fifth academic quarter of study. The Chair of the Department must also accept the plan. The thesis must be submitted by the beginning of the quarter preceding graduation, and it must be accepted by the advisor, or by another Harvard faculty member whom the student and the advisor agree to designate as reader.

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 a tutorial (EPI300) to this effort, but are not required to do so. For part-time SM candidates the timeline applies to the 3rd and 4th years of study. Failure to submit the thesis by the deadline will result in noncompliance with a departmental requirement and will lead to ineligibility for graduation. In the past, students have had to postpone graduation by failing to meet the deadline.

TIMELINE

Year One

Begin to consider the topic for master's thesis and talk with advisor about it.

Year Two

Fall One

Master's thesis topic should be 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 a paragraph describing the plan and topic for the thesis. The submission can be sent via e-mail and should be submitted before the end of the fall one semester. The Chair will send an e-mail of approval or disapproval of the topic.

Fall Two & Spring One

Students should begin work on thesis. Designated reader for the thesis should be chosen.

TIMELINE

Year Two Cont....

Spring Two Master's thesis must be submitted to the reader at the beginning of the Spring 2 semester. If the advisor is not the reader, comments on the thesis must be submitted to the advisor. The advisor or reader must submit the thesis and approval form to the Academic Service Coordinator by May 16, 2008.

Sample Master's of Science Schedule (80 Credit Program)

(Year One)

Fall 1	Fall 2
EPI201 Introduction to Epidemiology	EPI202 Elements of Epidemiologic Research
BIO201 Introduction to Statistical Methods	
10 Credits of Electives (<i>Courses related to area of interest</i>)	
Spring 1	Spring 2
EPI204 Analysis of Case-Control and Cohort Studies	EPI215 Advanced Topics in the Analysis of Case – Control & Cohort Studies
EPI 289 Causal Inference	EPI203 Study Design in Epidemiologic Research
BIO210 Analysis of Rates and Proportions	
7.5 Credits of Electives (<i>Courses related to area of interest</i>)	
Begin Work on Topic/Research for Master's Thesis	

(Year Two)

Fall 1	Fall 2
20 Credits of Electives (<i>Courses related to Area of interest and Biostatistics</i>)	
Work on Master's Thesis (<i>Master's Thesis Topic Submitted to Advisor and Chair of Department for approval</i>)	Work on Master's Thesis
Spring 1	Spring 2
20 Credits of Electives (<i>Courses related to Area of interest and Biostatistics</i>)	
Work on Master's Thesis	Master's Thesis Submitted to Reader at Beginning of the Spring 2 Semester

Master's Students Application to the Doctoral Program

Epidemiology master's candidates are welcome to apply to the doctoral program during the

normal admissions cycle. You will be required to submit your application through the Schools of Public Health Application Service (SOPHAS). For more information on the application process visit the admissions office site at <http://www.hsph.harvard.edu/admissions/>.

SECTION THREE: DOCTORAL STUDENT INFORMATION

DOCTOR OF SCIENCE/DOCTOR OF PUBLIC HEALTH IN EPIDEMIOLOGY

The doctoral programs are designed for students who plan careers in epidemiologic research or teaching and for those who aspire to leadership roles in the health professions. Applicants to the SD program should hold at least a bachelor's degree and have a strong background in biology and mathematics. For these individuals, the degree generally takes four to five years to complete; candidates with relevant doctoral degrees may complete the program in three years. The DPH degree is available to students holding a prior doctorate and an MPH degree. The program for the DPH degree is identical to that of the SD degree.

Required courses:

EPI201	Introduction to Epidemiology
EPI202	Elements of Epidemiologic Research
EPI204	Analysis of Case-Control and Cohort Studies
EPI205	Practice of Epidemiology
EPI207	Advanced Epidemiologic Methods
EPI247	Epidemiologic Methods Development
EPI289	Causal Inference
EPI294	Screening
BIO201	Introduction to Statistical Methods
BIO210	Analysis of Rates & Proportions
<u>or</u> BIO213	Applied Regression for Clinical Research
BIO223	Applied Survival Analysis and Discrete Data Analysis
<u>or</u> BIO226	Applied Longitudinal Analysis
EH205	Human Physiology – or equivalent*
ID208	Pathophysiology of Human Disease – or equivalent*

Strongly recommended courses (not required for 2008-2009):

EPI203	Study Design in Epidemiologic Research
EPI215	Advanced Topics in the Analysis of Case-Control and Cohort Studies

Recommended Non-Epidemiology Courses

<i>BIO210</i>	<i>Analysis of Rates & Proportions</i>
<i>BIO211</i>	<i>Regression and Analysis of Variance in Experimental Research</i>
<i>BIO213</i>	<i>Applied Regression for Clinical Research</i>
<i>BIO222</i>	<i>Basics of Statistical Inference</i>
<i>BIO223</i>	<i>Applied Survival Analysis & Discrete Data</i>
<i>BIO226</i>	<i>Applied Longitudinal Analysis</i>
<i>GCD210</i>	<i>Introduction to Cancer Biology</i>
<i>EH504</i>	<i>Principles of Toxicology</i>

* Physicians are not required to take the physiology or pathophysiology courses, other students with relevant prior coursework in these areas may petition to waive this requirement (see page 3).

Ordinal Credits

- Each doctoral candidate is required to have a minimum of 40 ordinal credits. Candidates with one major must have 20 credits in the major field, and 10 credits in each of 2 minor fields, one of which must be biostatistics.
- Candidates with double majors must have 20 credits in each major field and 10 credits in a minor field. For more information refer to your *HSPH student handbook*.
- In addition to the ordinal credit requirements, each candidate is also required to meet all of the departmental course requirements. Also required are 10 credits in substantive (*see list on pages 31 & 32*) courses offered by the department.

Prospective/Final Program

All doctoral candidates are required to submit both a prospective and final program to the registrar's office. When filling out the prospective program please remember that the introductory Epidemiology course (EPI200, EPI201, EPI208 or EPI500) cannot be used towards fulfilling the 20 credits required in your major. Likewise, the introductory biostatistics course (BIO200 or BIO201) cannot be used towards the 10 credits required for the biostatistics minor. The prospective program must be submitted by the end of the 2nd Semester (*see sample form on page 14-15*). For additional information and the timeline for the prospective/final programs please refer to the *HSPH student handbook*.

Credit Requirements

EPI Required Courses (*see list on page 12*)
10 credits in Substantive Courses (*see list on page 31 & 32*)
Minimum of 40 ordinal credits
20/40 credits above intro level courses in EPI (major)
10/40 credits above intro level in Biostatistics (1st minor)
10/40 credits in 2nd minor

Unless courses equivalent to those described for the master's program have been taken previously, most of the first two years are devoted to coursework. Subsequently, doctoral candidates must pass the departmental written examination and the school-wide oral qualifying examination; adhere to the doctoral timetable for maintaining satisfactory progress; complete, defend, and submit a thesis; and gain experience in teaching and research.

SAMPLE PROSPECTIVE / FINAL PROGRAM

Name: Jamie Riley

Harvard ID: 55508678

Major Field 1: Epidemiology

Please Check One:

Major Field 2: _____

Prospective Program

Minor Field 1: Nutritional Epidemiology

Final Program

Minor Field 2: Biostatistics

Prospective/Final Program

Advisor: Meir Stampfer

Major Field Title: Epidemiology

Course Code	Course Title	Credit Units	Grade	Semester/Year
EPI224	Cancer Prevention	2.5	A	Fall 1/2002
EPI202	Elements of Epidemiologic Research	2.5	A	Fall 2/2002
EPI203	Design of Case Control & Cohort Studies	2.5	A	Sprg 1/2003
EPI289	Causal Inference	2.5	A	Sprg 1/2003
EPI204	Analysis of Case Control & Cohort Studies	2.5	A	Sprg 2/2003
EPI207	Advanced Epi Methods	2.5	A-	Fall 1/2003
EPI247	Epi Methods Development	2.5	A-	Fall 2/2003
ID228	Principles of Screening	2.5	A	Sprg. 2/2004

Total Credits: ____ 20 ____

Minor Field 1 or Major Field 2: Biostatistics

Course Code	Course Title	Credit Units	Grade	Semester/Year
BIO210	Analysis of Rates & Proportions	5	A	Sprg./2003
BIO222	Basics Statistical Inference	5	A	Fall/2003

Total Credits: ____ 10 ____

Minor Field 2: Nutritional Epidemiology

Course Code	Course Title	Credit Units	Grade	Semester/Year
NUT201	Principles of Nutrition	2.5	A	Fall 2/2002
ID214	Nutritional Epi	2.5	A	Sprg/2003
ID221	Nutritional Epi II	2.5	A	Fall/2003
ID501	Nutritional Epi of Cancer	2.5	A	Sprg/2004

Total Credits: ____ 10 ____

Name: Jamie Riley

Harvard ID: 55508678

Required Courses: Please indicate below the courses you have taken to fulfill the Biostatistics and Epidemiology requirements.

EPIDEMIOLOGY: Check one

EPI200a, Semester and Year

EPI201a, Semester and Year waived

BIOSTATISTICS: List two intermediate level courses:

Courses Code and Title: BIO222 Statistical Inference

Semester and Year: Fall 2003

Courses Code and Title: BIO223 Applied Survival Analysis

Semester and Year: Sprg 2004

Complete this section only if this is your FINAL PROGRAM:

Nominations for Oral Qualifying Examination Committee:

Research Advisor: _____

Nominees (Please Print):	Nominee Will Examine in:
_____	_____
_____	_____
_____	_____

Statement of Goals and Objectives (attach an additional sheet if necessary). Also note any changes from your approved Prospective Program:

Faculty Advisor's Comments (include comments on Qualifying Committee in relation to the proposed research):

Required Signatures of Approval (To be completed for the Prospective and Final Programs):

_____	_____/_____/_____
Advisor Approval	Date
_____	_____/_____/_____
Department Chair Approval	Date
_____	_____/_____/_____
Department Chair Approval (Dual Degree Candidates Only)	Date

CAD Action:

Your Prospective/Final Program has been approved by the Doctoral Subcommittee of the CAD. _____ has been appointed Chair of your Examining Committee.

Your Prospective/Final Program has not been approved by the Doctoral Subcommittee of the CAD.

Comments: _____

_____	_____/_____/_____
Doctoral Subcommittee of the CAD Date	Date

Written Examination

The written examination is divided into two sessions. 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 following courses:

- BIO200 or BIO201
- BIO210 or BIO213
- EPI200 or EPI201
- EPI202
- EPI203
- EPI204
- EPI207
- EPI215
- EPI247
- EPI289
- EPI294

The second session covers substantive knowledge of epidemiology. Candidates are expected to be familiar with at least three disease-defined or exposure-defined areas, at levels of coverage given in the department's related courses. Candidates are encouraged to keep current with important recent developments in the topics they plan to select by regularly reading the major journals. Areas included in recent examinations are:

- Cardiovascular disease
- Respiratory disease
- Cancer
- Mental illness
- Infectious disease
- Environmental and occupational health
- Nutritional epidemiology
- Reproductive epidemiology
- Pharmacoepidemiology
- Epidemiologic methods

Procedure of the Examination

The examination is offered once a year, in June. Candidates are asked to notify the academic services coordinator of their intention to sit for the exam at least one month in advance. Additionally, participants are asked to submit a list of three substantive areas in which they wish to be examined. Regardless of the choices made on this list, however, students can choose to answer any five questions in the substantive section of the examination. (Some training grants require students supported by that grant to answer the substantive questions in that area; students for whom this requirement pertains will be informed well in advance.)

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 taking 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 examiners, and takes into account the student's overall academic performance. The department endeavors to notify students in writing of the results within two weeks of the exam.

Any student who fails the written exam is allowed, subject to faculty approval, a second and final attempt during the next examination period. The methods and substantive portions are graded separately; students who pass one section but not the other on the first attempt are not required to retake the section they passed. Any student whose performance on the written exam does not show a clear proficiency in the key quantitative and epidemiologic concepts will be closely evaluated during the oral exam.

Oral Exam and Committee

- Students must complete all course work listed on their final program, but the list need not include all the required courses. It will be appropriate for many doctoral students to avoid listing EPI205 on their final program.

When submitting the final program, students will also provide the nominees for the oral examination committee. Typically, members of the examination committee must hold an HSPH faculty appointment in disciplines representing the major field(s) as well as the minor field(s). For additional information on this requirement refer to the *HSPH student handbook*.

The student's advisor may not serve on the oral examination committee. The advisor may be present during the examination, but may not speak during the examination, and has no vote. At the discretion of the examining committee, the advisor may be invited to participate in the discussion after the examination. Students must complete the oral examination no later than 9 months after passing the written examination. Exceptions will be considered only upon written petition to the department chair.

- Before the oral examination, the student distributes a thesis proposal to the committee. The format will vary depending on the student's level of progress at the time. For advanced students with completed thesis papers, these should be distributed along with the plans for remaining work. Less advanced students can present plans for their first or first two thesis papers. It is not necessary to present preliminary data. The written thesis proposal should be a draft, or drafts of papers, or a detailed outline for the plans for papers, including background material that would become the introduction to one or more of the papers. The goal is not to produce a finished polished document, but rather a springboard towards advancing the thesis papers, and a starting point for the examination.
- The Committee on Admissions and Degrees (CAD) appoints the chair of the oral exam committee at the time of the approval of the final program. Upon notification by the Registrar's office of your committee chair, you must submit an oral exam scheduling form. The scheduling form along with your proposal must be submitted to the Registrar's office at least 3 weeks prior to the examination date. Students must also submit a copy of the oral exam scheduling form to the Academic Service Coordinator in Kresge 926.

- Epidemiology students cannot schedule their oral exam until they have passed the departmental written exam. Students can, however, submit their final program and nominate their orals committee if they have completed all of the necessary coursework for the final program. Students requesting to delay the submission of the final program until after the written exam are required to submit a general petition to the Registrar's Office. For more information on the oral exam refer to the *HSPH student handbook*.

Research Committee

Upon successful completion of the oral examination, students must nominate the research committee. The research committee may include members of the oral examination committee, but this is not required. Typically, the academic advisor serves on the research committee as chair. The research advisor must hold a primary or secondary appointment in the Epidemiology department. However, members of the research committee may include faculty members outside HSPH.

Doctoral Thesis

The doctoral thesis represents a contribution of knowledge through original scholarly research. Specific thesis requirements and procedures are outlined in detail in the *HSPH student handbook*. Supplemental guidelines for doctoral candidates are provided below.

The department requires that students notify the chair's office when they have scheduled their thesis defense and submit a copy of the thesis defense scheduling form to the academic services coordinator to ensure proper announcement of the defense within the department.

Training Grants

The Department of Epidemiology has a long tradition of excellence in research and training. Through support from the National Institutes of Health, pre- and post- doctoral fellowships are available in areas such as Aging, Cardiovascular Epidemiology, Cancer Epidemiology, Molecular and Genetic Epidemiology, Environmental and Occupational Epidemiology, Oral Epidemiology and Nutritional Epidemiology of Cancer. These fellowships are available only to citizens and permanent residents of the United States. For more information on fellowships available through the Department of Epidemiology contact the Academic Service Coordinator.

Any doctoral student receiving a fellowship funded by the National Institutes of Health must cite the granting agency on any papers or presentations based on work done as part of the training. The training grant coordinator can provide the appropriate wording for the citation.

Application for Dual Degree Status

Doctoral candidates wishing to apply for dual degree status must submit the following to the Admissions Office:

General Petition to the HSPH Registrar's Office
General application to the Admissions office including:

Two new letters of recommendation (*Letter from an HSPH faculty member advised*)
A new statement of Purpose

Candidates should also contact the appropriate department for any additional application requirements. For additional admissions information visit the HSPH Admissions website at <http://www.hsph.harvard.edu/admissions>.

SUPPLEMENTARY GUIDELINES FOR DOCTORAL DEGREE

The doctoral thesis in the Department of Epidemiology at Harvard School of Public Health should reflect the ability of the student to perform independent high quality epidemiologic research. The requirements for the doctoral degree, and the necessary steps towards meeting those requirements, are written in detail in the *HSPH student handbook*. These supplementary guidelines are specific to the Department of Epidemiology, and add to, but do not replace, the rules in the Student Handbook and other listed epidemiology department requirements. The purpose of these guidelines is to standardize expectations across the doctoral students' experience while simultaneously maintaining a vital flexibility in the program. If a student or faculty member believes these guidelines are not met, the department chair should be consulted.

Requirements

Doctoral Thesis Content and Completion: Normally the thesis consists of at least three high quality original papers for publication (deviations subject to approval of the department chair). These should revolve around some common theme, but need not be closely linked. The goal is to establish expertise in the area under study. One of the thesis papers may be a qualitative or quantitative review paper if this review results in a novel and compelling hypothesis (subject to approval of the thesis committee).

All papers included in the thesis must be in a form ready to submit for publication. "Ready to submit" means that the content and analysis have been approved by the thesis committee and that the student and the advisor believe the manuscript is ready to be submitted to a journal in its present form, even though it may be awaiting comments from co-authors or other sign-offs. At least one of the thesis papers must be submitted by the time of the defense. All thesis committee members must approve all thesis papers before scheduling the defense. To make most efficient use of faculty and student time, no paper should be circulated to the entire committee until a committee member (usually the advisor) has reviewed the draft, and comments have been incorporated. It is expected that committee members review thesis papers in a timely fashion (usually within 2 weeks).

Authorship on Thesis Papers: Authorship of the papers to be included in the thesis should be discussed by the faculty advisor and student prior to the start of the thesis. If the student conducts the data analysis and writes the major parts of the paper, the student should be the first author of the paper. Generally, the student will be first author on all three papers included in the doctoral thesis.

Prior Work as Part of the Thesis: Work done prior to the written examination or even before formal entry to the program can be used as part of the thesis (subject to the approval of the thesis committee), as long as that work was performed under the supervision of HSPH epidemiology faculty. Thus, for example, papers written at HSPH as part of the master's degree program could be included in the doctoral thesis if appropriate.

Data Collection: All doctoral students must have adequate experience in data collection. This experience can be collecting the data for their own thesis or for another project, as agreed with the advisor. The goal is to provide a meaningful, practical learning

experience (outside of class) but not to impose an undue burden. Examples of data collection projects that fulfill the requirement are:

- Collecting data for a new substudy or a validation study
- Supervising data collection in an ongoing study
- Developing/documenting a new disease outcome in a cohort study or new exposure in a case-control study
- Conducting the laboratory component of a project
- Designing and distributing a questionnaire

The data collection requirement is part of the research or tutorial credits. The wintersession might be utilized to engage in data collection. Students with previous primary data collection experience might be able to apply this experience towards fulfillment of the requirement (subject to approval of advisor or department chair).

Recommendations

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 record of productivity.

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.

Teaching Experience: Students are strongly encouraged to gain teaching experience by serving as a teaching assistant. This will help consolidate the understanding of the material and provide valuable experience in teaching. Often, those who write reference letters are asked to comment on teaching experience and skills. Teaching assistant positions are available throughout the terms in the academic year and during summer session. Teaching assistants for core epidemiology courses are typically limited to students who have passed the departmental written exam. Responsibilities may include: attending lectures and organizational meetings, grading homeworks and exams, designing assignments and answer keys, holding office hours, and leading seminars.

Presentation Skills: Students are encouraged to present their findings at seminars, and national and international meetings to develop their presentation skills.

Sample Doctor of Science/Doctor of Public Health Schedule

(Year One)

Fall 1	Fall 2
EPI201 Introduction to Epidemiology	EPI202 Elements of Epidemiologic Research
BIO201 Introduction to Statistical Methods	
EH205 Human Physiology	
5 Credits of Electives	
Spring 1	Spring 2
EPI204 Analysis of Case-Control & Cohort Studies	EPI215 Advanced Topics in the Analysis of Case – Control & Cohort Studies
BIO210 Analysis of Rates and Proportions	
ID208 Pathophysiology of Human Disease	
EPI289 Causal Inference	EPI203 Study Design in Epidemiologic Research
Begin Work on Topic/Research for Thesis	

(Year Two)

Fall 1	Fall 2
EPI207 Advanced Epidemiologic Methods	EPI247 Epidemiologic Methods Development – Past & Present
BIO226 Applied Longitudinal Analysis	
EH205 Human Physiology	
10 Credits of Electives (<i>Courses related to Biostatistics and Area of Interest</i>)	
Spring 1	Spring 2
20 Credits of Electives (<i>Courses related to Biostatistics and Area of Interest</i>)	
Prepare for Written Qualifying Exam (<i>Given Once a Year in the Spring</i>)	
Continue Work on Topic/Research for Thesis	

(Year Three)

Fall 1	Fall 2
EPI205 Practice of Epidemiology	
17.5 Credits of Electives (<i>Courses and Independent Study Work</i>)	
Spring 1	Spring 2
20 Credits of Electives (<i>Work on Thesis</i>)	

(Year Four & Five)

Fall 1	Fall 2
EPI350 (<i>20 Credits on Research and Thesis Work</i>)	
Spring 1	Spring 2
EPI350 (<i>20 Credits on Research and Thesis Work</i>)	
Complete and Defend Thesis	

See HSPH student handbook for school-wide doctoral student timetable and additional information on prospective/final programs, oral exam and research committees.

SECTION FOUR: EPIDEMIOLOGY AREAS OF INTEREST & COURSE INFORMATION

AREAS OF INTEREST

As described previously, the department offers both 80-credit and 42.5-credit Master's of science (SM) programs, as well as a doctor of science (SD) and doctor of public health (DPH) program. For additional information about the EPI Areas of Interest visit our website at <http://www.hsph.harvard.edu/epidemiology/>.

Students in all degree programs choose from among fourteen areas of interest:

Cancer Epidemiology



In addition to research methodology, the curriculum in this area includes courses on the biology and genetics of cancer; the basic concepts and issues of cancer epidemiology; the roles of lifestyle factors such as and physical activity, oncogenic viruses, and occupational exposures in the etiology of cancer; the integration of biomarkers into research; the prevention of cancer; and research methods. Research opportunities for students include a large number of ongoing cohort and case-control studies within the department and in conjunction with the Dana-Farber/ Harvard Cancer Center.

Trainees will have the opportunity to work with several large ongoing cohort and case-crossover studies and to interact with other departments within the School of Public Health and Medical school with active cardiovascular research programs.

Clinical Epidemiology



This area is designed primarily for clinicians who wish to develop the quantitative skills needed for clinical research. Students take core courses in epidemiology and biostatistics to develop basic skills in study design and analysis that will allow them to examine clinical questions related to the diagnosis and treatment of disease. Additional courses in epidemiology and courses offered by other departments address related topics of potential interest, such as health status and quality-of-life measurement, decision analysis, cost-effectiveness analysis, health services research, and quality improvement of health care.

Cardiovascular Epidemiology



This area provides training in research methodology and the epidemiology of cardiovascular diseases. Doctoral students conduct research in a substantive or methodological area related to cardiovascular epidemiology. Research opportunities for students and post-docs include a broad area of topics including the role of diet, genetic, plasma markers, lifestyle characteristics, clinical interventions and environmental predictors of primary and secondary onset of cardiovascular disease.

While the appropriate content for this area may be covered by taking courses offered during the regular academic year (fall and spring semesters), requirements for the 42.5-credit SM degree in epidemiology may also be partially

fulfilled by taking the summer courses offered through the Summer Program in Clinical Effectiveness. Under this schedule, students begin their program by taking a core set of clinical effectiveness courses during an initial summer period and complete the SM program by taking advanced courses during the regular academic year and, if desired, during a second summer period.

Alternatively, clinical effectiveness students who only take courses during two summer periods can satisfy the requirements for the 42.5-credit SM degree by completing a supervised research project. The content of this project typically entails the design and implementation of a clinical study, the analysis of the resulting data, and the creation of a manuscript of quality suitable for publication.

An outline for this project must be submitted at time of application.

Environmental/Occupational Epidemiology



This area is closely associated with the concentrations in exposure, epidemiology and risk and in occupational health in the Department of Environmental Health. Students take courses in epidemiology, environmental health, occupational health, biostatistics, toxicology, genetics and environmental exposure assessment. Doctoral students conduct research in a substantive or methodologic area related to environmental or occupational health.

This area's research emphasis includes the relationships between environmental and occupational exposures and cancer, children's health, cardiopulmonary disease, neurodegenerative disease, reproductive health, and gene-

environment interactions.

Epidemiologic Methods



This area provides training in the development and application of new methods in epidemiologic research. Students learn to use and justify classical epidemiologic methods in study design, data analysis, and interpretation of results. Students also receive training in biostatistical areas most relevant to epidemiologic research.

Recent innovations in epidemiologic methodology are introduced through advanced courses and tutorials. Doctoral students conduct research with faculty members in the development of new methodologies and in novel applications of existing methodologies.

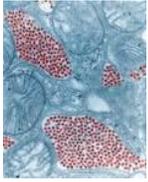
Those enrolling in this area of interest ordinarily have completed four semesters of college calculus and one semester of linear algebra.

Epidemiology of Aging



This area is geared toward those interested in the diseases and conditions, as well as research methods, specific to older populations. Social and cultural aspects of health in older persons are also covered. -Core courses focus on the epidemiologic aspects of studying aging, and include courses in biology, statistics and other relevant fields. Numerous research opportunities on a wide range of issues, including neurologic diseases, osteoporosis, incontinence and others, are available in the Department of Epidemiology as well as the Department of Nutrition, Channing Laboratory, Division of Preventive Medicine at Brigham and Women's Hospital, and Hebrew Rehabilitation Center for the Aged.

Infectious Disease Epidemiology



Research in this area focuses on the biological and dynamical features of infectious diseases, with emphasis on the use of epidemiologic approaches to study the social, behavioral and biological determinants of infectious disease emergence, transmission, pathogenesis, and immunity. Offerings in the Department of Epidemiology focus on the common features of communicable diseases and their dynamics, on methods for the analysis of transmission dynamics, and on advanced topics in the epidemiology of certain specific infectious diseases, mainly HIV. Courses in other departments including Immunology and Infectious Diseases, Population and International Health, and Biostatistics provide introductions to the epidemiology of additional specific infectious diseases and to additional relevant methodologies, including spatial and time-series analysis. Students in this area of interest ordinarily join the Interdisciplinary Program in Infectious Disease Epidemiology.

Molecular/Genetic Epidemiology



This area introduces students to the application of molecular and genetic methods in epidemiology. These methods may be useful as measures of exposure, disease susceptibility, or disease outcome. Training encompasses family-based association methods, genome-wide association studies to identify the chromosomal localization of genes associated with disease, and fine mapping and identification of these genes. Population-based studies correlate variation in genes with disease risk and

prognosis and assess gene-environment interactions. Relevant courses explore the genetic epidemiology of complex diseases, including cancer, cardiovascular disease, diabetes, psychiatric illnesses, Alzheimer's disease, and asthma, as well as individual variation in drug response (pharmacogenomics). Students can collaborate with the Department of Environmental Health (including the Program for Population Genetics), the Channing Laboratory, Dana-Farber Cancer Center, and other research groups.

Neuroepidemiology



This area provides training in research methodology and the epidemiology of neurological diseases. Current research is focused on the roles of diet, infections, and environmental exposures in the etiology of neurodegenerative diseases, such as multiple sclerosis, Parkinson's disease, and amyotrophic lateral sclerosis, and integrates biomarkers and genetic factors. Doctoral students conduct research in a substantive or methodological area related to neuroepidemiology.

Nutritional Epidemiology



Through courses in the Departments of Epidemiology and Nutrition, students in this area learn methods of nutritional assessment and their related strengths and weaknesses. Students also receive advanced training in the nutritional determinants of disease and in methods for analysis specific to research in nutritional epidemiology. Students can conduct research within several large prospective ongoing studies at HSPH and Harvard

Medical School, including an examination of dietary factors in relation to cardiovascular disease, cancer, and other chronic diseases; a study of the interactions between nutritional and genetic determinants of disease; and the assessment of nutritional supplementation in relation to infectious agents and malnutrition.

Oral and Dental Health Epidemiology



This area prepares dentists and others interested in oral diseases for research and teaching careers in epidemiology with an emphasis on oral epidemiology and

dental health. A new focus area is the links between oral conditions, nutrition, and systemic diseases such as coronary heart disease, stroke, diabetes and adverse pregnancy outcomes. Students can participate in field research activities; epidemiologic studies of oral health risk factors; or clinical trials designed to test preventive, diagnostic, or therapeutic interventions. The Department of Oral Health Policy and Epidemiology in the Harvard School of Dental Medicine and the HSPH Department of Epidemiology jointly administer this area of interest.

Pharmacoepidemiology



This area focuses on the determinants of both unintended and expected effects of drugs, vaccines and medical devices. Patterns of

utilization of drugs, vaccines and devices, cost-benefit and risk-benefit analyses, and investigation of the distribution of diseases possibly amenable to medical intervention represent important secondary themes. The Department of Epidemiology offers courses in pharmacoepidemiology and a

variety of ongoing research projects. Relevant courses elsewhere in the school cover such areas as clinical trials, meta-analysis, drug regulatory affairs, decision analysis, and health services research. Students in pharmacoepidemiology have the opportunity to attend courses and congresses outside the school and are encouraged to undertake internships in regulatory agencies or pharmaceutical and biotechnology companies. Students ordinarily have a prior degree in medicine or pharmacy. Others are expected to acquire substantially equivalent expertise in areas related to their research.

Psychiatric Epidemiology



This area introduces students to concepts and methods for studying the genetic and psychosocial factors that relate to the prevalence, incidence, and outcome of different types of psychiatric illnesses. Emphasis is given to issues of reliability and validity in studying such disorders among children, adolescents, and adults. The curriculum consists of six specialized courses, as well as related courses offered in the Departments of Epidemiology, Biostatistics, Maternal and Child Health, and Health and Social Behavior. A wide variety of research opportunities are available, with particular depth in psychiatric genetics, mental health services, pharmacoepidemiology, clinical trials, prevention and community and cross-cultural studies.

Reproductive Epidemiology



Reproductive epidemiologists choose as their interest the broad topic of the determinants and

consequences of reproduction, including women's health and male infertility.

Students can explore pubertal development, gynecologic disorders, sexually transmitted infections, the menstrual cycle, menopause, fertility, conception, assisted reproductive technologies, and pregnancy as endpoints or as factors influencing disease outcomes.

The Obstetrics and Gynecology Epidemiology Center, based at Brigham and Women's Hospital, offers the opportunity to gain experience in data collection and analysis of large-scale population- and clinical-based epidemiologic studies.

Students may collaborate with faculty members at HSPH and Harvard Medical School and also have the opportunity to pursue gynecological and reproductive health research at the many resources available in the area, including the Channing Laboratory, Harvard Pilgrim Health Care, and the Division of Preventive Medicine and the Connors Center for Women's Health and Gender Biology at Brigham and Women's Hospital. Students are encouraged and given guidance on how to submit their own research proposals for private or federal funding.

AREAS OF INTEREST (Recommended Core Courses)

CANCER EPIDEMIOLOGY

- EPI213** Epidemiology of Cancer §
- EPI224** Cancer Prevention*
- EPI240** Use of Biomarkers in Epidemiologic Research*
- EPI246** Applied Biomarkers in Cancer Epidemiology*
- EPI249** Molecular Biology for Epidemiologists
- EPI250** Molecular Epidemiology of Cancer*
- EPI252** Infections and Cancer*
- EPI257** Advanced Seminar in Cancer Epidemiology*
- EPI294** Screening
- SHH201** Society and Health
- SHH211** Health Promotion through Mass Media
- SHH249** Approaches to International Tobacco Control

CARDIOVASCULAR EPIDEMIOLOGY

- EPI223** Cardiovascular Epidemiology
- EPI240** Use of Biomarkers in Epidemiologic Research*
- EPI250** Molecular Epidemiology of Cancer*
- ID214** Nutritional Epidemiology
- SHH201** Society and Health

CLINICAL EPIDEMIOLOGY

- BI0213** Applied Regression for Clinical Research
- BI0214** Principles of Clinical Trials
- EPI242** Seminar in Applied Research in Clinical Epidemiology
- EPI271** Propensity Score Analysis: Theoretical and Practical Considerations
- EPI288** Data Mining and Prediction

ENVIRONMENTAL/OCCUPATIONAL EPIDEMIOLOGY

- EH205** Human Physiology
- EH236** Epidemiology of Environmental and Occupational Health Regulations §
- EH269** Exposure Assessment for Environmental and Occupational Epidemiology §
- EH504** Principles of Toxicology
- ID215** Environmental and Occupational Epidemiology §
- ID271** Advanced Regression for Environmental Epidemiology

EPIDEMIOLOGIC METHODS

- BI0223** Applied Survival Analysis and Discrete Data Analysis
- BI0226** Applied Longitudinal Analysis
- BI0248** Advanced Statistical Computing
- EPI207** Advanced Epidemiological Methods**
- EPI247** Epidemiologic Methods Development—Past and Present**
- EPI289** Causal Inference in Epidemiology**

EPIDEMIOLOGY OF AGING

EPI254 Epidemiology of Aging

EPI284 Epidemiology of Neurologic Diseases*

GR705.40 (HMS Seminar) Developing an Interdisciplinary Approach to the Health Management of Older Adults

INFECTIOUS DISEASE EPIDEMIOLOGY

BIO287 Public Health Surveillance*

EPI255 Epidemiology of HIV, Part I: Etiology, Natural History & Transmission*

EPI256 Epidemiology of HIV, Part II: Therapeutic & Prevention Interventions*

EPI260 Mathematical Modeling of Infectious Diseases*

EPI285 Infectious Disease Dynamics*

ID229 Epidemiology of Infectious Diseases of Public Health Importance in Developing Countries*

IMI201 Ecology, Epidemiology, and Control of Important Parasitic Diseases of Developing Areas

IMI208 Immunology of Infectious Disease*

MOLECULAR AND GENETIC EPIDEMIOLOGY

BIO257 Advanced Statistical Genetics

BIO290 Genomics and Genetics for Health Research

EPI222 Genetic Epidemiology of Diabetes & its Complications*

EPI249 Molecular Biology for Epidemiologists

EPI250 Molecular Epidemiology of Cancer*

EPI293 Analysis of Genetic Association Studies Using Unrelated Subjects

NEUROEPIDEMIOLOGY

BIO257 Advanced Statistical Genetics*

EPI240 Use of Biomarkers in Epidemiologic Research*

EPI254 Epidemiology of Aging*

EPI284 Epidemiology of Neurologic Diseases*

ID214 Nutritional Epidemiology

NUTRITIONAL EPIDEMIOLOGY

ID214 Nutritional Epidemiology §

ID221 Nutritional Epidemiology II * §

ID510 Nutritional Epidemiology of Cancer*

ID512 Molecular Basis of Nutritional and Metabolic Diseases

ID520 Advanced Topics in Nutrition and Cancer

ID537 Obesity Epidemiology

NUT201 Principles of Nutrition §

NUT202 The Science of Human Nutrition §

ORAL AND DENTAL HEALTH EPIDEMIOLOGY

EPI228 Oral Epidemiology*

HPM275 Health Policy Issues: Access to Dental Services

ID274 Oral Health Policy Research Seminar

PHARMACOEPIDEMOLOGY

BI0214 Principles of Clinical Trials

BI0262 Statistical Problems in Drug Development*

EPI221 Pharmacoepidemiology

EPI235 Epi Methods in Health Services Research*

EPI286 Advanced Pharmacoepidemiology*

EPI297 Seminars in Pharmacoepidemiology

PSYCHIATRIC EPIDEMIOLOGY

EPI219 Assessment Concepts and Methods in Psychiatric Epidemiology*

EPI241 Measuring Health Status

EPI244 Genetic Epi Methods for Psychiatric and Other Complex Disorders*

ID278 Mental Health of Children and Adolescent

ID283 Epi Investigation of Social and Environmental Risk Factors for Psychiatric Disorders

ID521 Developmental Epidemiology of Adult Psychiatric Disorders

REPRODUCTIVE EPIDEMIOLOGY

EPI213 Epidemiology of Cancer

EPI269 Epidemiological Research in Obstetrics and Gynecology

EPI270 Advanced Reproductive Epidemiology

EPI296 Bridging Psychiatric Morbidity and Reproductive Outcomes

SHH216 Childbirth: Health Policy and Epidemiology

WGH211 Women Gender and Health: Introductory Perspectives

***Courses offered on an alternate year schedule**

***Required courses for students in Doctoral Program in Epidemiology; §Required courses for students focusing on this area.*

Course listings are subject to change. Please check listings on the Registrar's website at <http://www.hsph.harvard.edu/registrar/>

EPIDEMIOLOGY DEPARTMENT COURSES

CORE EPI COURSES

EPI200 Principles of Epidemiology
EPI201 Introduction to Epidemiology
EPI202 Elements of Epidemiologic Research
EPI203 Study Design in Epidemiologic Research
EPI204 Analysis of Case-Control and Cohort Studies
EPI215 Advanced Topics in the Analysis of Case-Control and Cohort Studies
EPI208 Introduction to Clinical Epidemiology
EPI500 Fundamentals of Epidemiology

METHODOLOGY COURSES

EPI207 Advanced Epidemiologic Methods
EPI233 Research Synthesis & Meta-Analysis
EPI236 Analytical Aspects of Clinical Epidemiology
EPI241 Measuring Health Status
EPI244 Genetic Epidemiologic Methods for Psychiatric and Other Disorders
EPI247 Epidemiologic Methods Development - Past and Present
EPI271 Propensity Score Analysis: Theoretical & Practical Considerations
EPI288 Data Mining and Prediction
EPI289 Causal Inference
EPI293 Analysis of Genetic Association Studies Using Unrelated Subjects
EPI294 Screening

SUBSTANTIVE COURSES

EPI213 Epidemiology of Cancer
EPI214 Epidemiologic Analysis of Outbreaks and Infectious Diseases
EPI216 Epidemiology in Public Health Practice
EPI221 Pharmacoepidemiology
EPI222 Genetic Epidemiology of Diabetes and its Complications
EPI223 Cardiovascular Epidemiology
EPI224 Cancer Prevention
EPI228 Oral Epidemiology
EPI229 Ophthalmic Epidemiology
EPI235 Health Services Epidemiology
EPI240 Use of Biomarkers in Epidemiological Research
EPI246 Applied Biomarkers in Cancer Epidemiology
EPI249 Molecular Biology for Epidemiologists
EPI250 Molecular Epidemiology of Cancer
EPI251 Studies in Molecular Epidemiology
EPI252 Infections and Cancer
EPI254 Epidemiology of Aging
EPI255 EPI of HIV Part I: Etiology, Natural History and Transmission
EPI256 EPI of HIV, Part II: Therapeutic & Prevention Intervention

SUBSTANTIVE COURSES continued.....

EPI269 Epidemiological Research in Obstetrics and Gynecology
EPI284 Epidemiology of Neurologic Diseases
EPI285 Infectious Disease Epidemiology
EPI295 Pharmacoepidemiology: Introduction

SEMINAR COURSES

EPI205 Practice of Epidemiology
EPI242 Seminar in Applied Research in Clinical Epidemiology
EPI257 Advanced Seminar in Cancer Epidemiology
EPI270 Advanced Reproductive Epidemiology
EPI292 Advanced Topics in Epidemiologic Methods
EPI296 Bridging Psychiatric Morbidity and Reproductive Outcomes
EPI297 Seminars in Pharmacoepidemiology
ID274 Oral Health Policy Research Seminar
ID298 Case-Based Seminars on Drug Safety
ID520 Advanced Topics in Nutrition and Cancer
WGH207 Advanced Topics in Women, Gender and Health

INTERDEPARTMENTAL COURSES

ID206 Scientific Writing in Nutrition and Epidemiology
ID214 Nutritional Epidemiology*
ID215 Environmental and Occupational Epidemiology*
ID218 Environmental and Social Risk Factors for Psychiatric Disorders*
ID221 Nutritional Epidemiology II*
ID224 Child and Adolescent Mental Disorders: Public Health Perspectives*
ID236 Social Epidemiology*
ID269 Respiratory Epidemiology*
ID271 Advanced Regression for Environmental Epidemiology
ID274 Oral Health Policy Research Seminar
ID510 Nutritional Epidemiology of Cancer*
ID520 Advanced Topics in Nutrition and Cancer
ID521 Developmental Epidemiology of Adult Psychiatric Disorders*
ID537 Obesity Epidemiology*
WGH200 Women, Gender and Health
WGH207 Advanced Topics in Women, Gender and Health
WGH211 Women, Gender and Health: Introductory Perspectives

Interdepartmental courses with an asterisk can be used towards meeting the substantive credit requirements. Courses in grey are only open to students participating in the summer program. Course listings are subject to change. Please check listings on the Registrar's website at <http://www.hsph.harvard.edu/registrar/>.

SECTION FIVE: ADDITIONAL INFORMATION

COMMITTEES

Epidemiology Department Student Advisory Committee

This student committee was formed to serve as a liaison with the Chair of the Department and the Academic Service Coordinator. 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 MS1 students, will serve for a 2-year period. The representatives currently on the committee are as follows:

Kimberly Bertrand, kbertran@hsph.harvard.edu
Jaime Madrigano, jmadriga@hsph.harvard.edu
Kerry Souza, ksouza@hsph.harvard.edu

Please feel free to bring any concerns that you would like addressed by the Student Advisory Committee to the Chair of the Department, the Academic Service Coordinator or any of the student representatives. Students interested in participating on the committee should submit their names to the assistant director.

HSPH Student Coordinating Committee

The Student Coordinating Committee (SCC) is the Harvard School of Public Health's student government. Currently, the SCC has 21 officers. SCC works closely with faculty and administration on important school-wide issues. It also organizes and sponsors social, educational, and community service events. Additional information on the SCC can be found on-line at <http://www.hsph.harvard.edu/scc/index.html>.

RESOURCES

Epidemiology students are welcome to use the library (Kresge, Room 908) and conference rooms for group meetings or study sessions. The library must be reserved in advance by calling 617/432-1050.

Epidemiology doctoral and master's students here for two years are allocated mailboxes in the department, 9th floor in Kresge, in addition to the mailboxes allocated by HSPH. Master's students here for one year are allocated mailboxes by HSPH only, due to their limited time in the program. Students are responsible for checking all allocated mailboxes for information.

CONTACT INFORMATION

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Ms. Michelle Coleman
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Phone: 617/432-1055
E-mail:

*For contact information on EPI Faculty visit our website at
<http://www.hsph.harvard.edu/departments/epidemiology/faculty/>*

