Epidemiology PhD Plan of Study
Effective Fall 2020

PhD Core Curriculum

Course Number	Course Title	S.H.	Semester(s) offered
CPH:6100	Essentials of Public Health	2 s.h.	Fall
BIOS:4120	Introduction to Biostatistics	3 s.h.	Fall, Spring, Summer**
EPID:4400	Epidemiology I: Principles	3 s.h.	Fall, Spring,** Summer**
EPID:5241	Statistical Methods in Epidemiology	4 s.h.	Spring
EPID:5600	Introduction to Epi Data Management and Analysis	3 s.h.	Fall
EPID:5610	Intermediate Epi Data Analysis with SAS and R	3 s.h.	Spring
EPID:6050	Research in Epidemiology	3 s.h.	Fall, Spring, Summer
EPID:6100	Writing a Grant Proposal	3 s.h.	Fall
EPID:6400	Epidemiology II: Advanced Methods	4 s.h.	Spring
CPH 7270	Principles of Scholarly Integrity: Public Health	1 s.h.	Fall (0 s.h.), Spring (1 s.h.)
EPID:7400	Epidemiology III: Theories	3 s.h.	Fall odd years
PATH:8133	Introduction to Human Pathology*	4 s.h.	Fall
Choose 1 of the following 2 courses:			
BIOS:6310	Introductory Longitudinal Data Analysis	3 s.h.	Fall
BIOS:6210	Applied Survival Analysis	3 s.h.	Spring
Choose 1 of the following 2 courses:			
HHP:3500	Human Physiology	3 s.h.	Fall, Spring, Summer**
MPB:5153	Graduate Physiology	4 s.h.	Fall

*Students with a strong biosciences background may choose to substitute PATH:5270 Pathology and Molecular Medicine for this course if it fits better with their training plan. This is an advanced course that requires a strong foundation in molecular biology and related disciplines, but may be suitable for some students.

**Offered online only during this semester.

Additional Requirements

- EPID:5925 Epidemiology Journal Club (0 s.h. – offered during fall and spring); 5 semesters of registration/attendance required during the duration of the PhD program.
- Epidemiology Seminar (offered fall and spring); students are expected to achieve at least 80% attendance at the Department of Epidemiology Seminar during each semester of enrollment.

Research Interest Area Electives (23-25 s.h.)

Students are encouraged to choose one of the recommended Research Interest Area Plans of Study. In consultation with their advisor, a student may propose a modified Research Interest Area of the same name. If there is not a good fit with one of the recommended Plans, in consultation with their advisor a student may propose a new Research Interest Area Plan of Study. The student must prepare a proposed name for the new Plan and a brief rationale. Modified and new Research Interest Areas will be reviewed and approved by majority decision by the Plan of Study committee.

Additional Epidemiology Department Electives. (3 s.h.)

In addition, the student must select at least 3 s.h. from Epidemiology course offerings (EPID) outside the student's research interest area. EPID:7200 Teaching in Epidemiology (3 s.h., offered in the fall and spring) is a strongly recommended elective for students interested in a career in academia.

Dissertation Requirement (10-18 s.h.)

EPID:7000 Dissertation 10-18

Total Credit Hours for the PhD in Epidemiology: 78 s.h.

Molecular and Genetic Epidemiology Research Interest Area Electives
Recommended Plan of Study

Course #	Course Name	S.H.	Semester(s) offered*
Students interested in molecular and genetic epidemiology will take the following 2 courses:			
EPID:6250	Genetics and Epidemiology	3 s.h.	Fall odd years
EPID:5560	Introduction to Molecular Epidemiology	3 s.h.	Spring
Students will choose 1 of the following 2 courses. Note: if students take both classes the other can count towards the recommended electives area.			
EPID:6550	Epidemiology of Infectious Diseases	3 s.h.	Fall
EPID:6600	Epidemiology of Chronic Diseaes	3 s.h.	Fall
Students will choose 1 course from the following. Note if students take more than 1 or all 3, the additional courses will be considered approved recommended research interest area electives.			
EPID:6920	Applied Administrative Data Analysis	2 s.h.	Fall
EPID:5214	Meta-Analysis of Epidemiologic Studies	3 s.h.	Spring odd years
EPID:6420	Survey Design and Analysis	3 s.h.	Spring even years
In addition, students will complete 14-15 s.h. from the following recommended courses. Students should select courses in consultation with their advisor to reflect their research interest area (e.g. infectious diseases, chronic diseases, pharmacoepidemiology, clinical epidemiology, hospital epidemiology, psychiatric epidemiology, or clinical investigation):			
ANTH:3325	Human Evolutionary Genetics	3 s.h.	Fall – variable
ANTH:3326	Infectious Disease and Human Evolution	3 s.h.	Fall – variable
ANTH:3328	Molecular Genetics of Human Diseases	3 s.h.	Spring – variable
ANTH:3307	Modern Human Origins	3 s.h.	Fall odd years
ANTH:3308	Human Variation	3 s.h.	Variable
BIOL:3172	Evolution	4 s.h.	Fall, Spring
BIOL:4333	Genes and Developoment	3 s.h.	Spring
BIOL:3713	Molecular Genetics	4 s.h.	Fall
BIOL:3373	Human Population Genetics and Variation	3 s.h.	Spring
BIOL:4213	Bioinformatics	4 s.h.	Fall
BIOL:4373	Molecular Evolution: Genes, Genomes, and Organisms	3 s.h.	Spring
BIOL:3314	Genomics	3 s.h.	Spring
BIOL:5412	Fundamental Genetics	3 s.h.	Fall
BIOL:5320	Computational Genomics	3 s.h.	Spring
BME:5320	Bioinformatics Techniques	3 s.h.	Fall
EPID:5550	Diagnostic Microbiology for Epidemiology	3 s.h.	Spring (online)
EPID:6570	Infectious Causes of Chronic Diseases	3 s.h.	Spring even years
EPID:6560	Hospital Epidemiology	2 s.h.	Spring odd years
EPID:6350	Nutritional Epidemiology	2 s.h.	Spring
GENE:6150	Genetic Analysis of Biological Systems	3 s.h.	Fall
GENE:6234	Basic Biostatistical Methods in Genetic Apps	1 s.h.	Spring
GENE:7191	Human Molecular Genetics	3 s.h.	Spring even years
HHP:4450	Genetic Basis of Disease	3 s.h.	Fall
MCB:6215	Transcription RNA	1 s.h.	Spring
MCB:6217	Epigenetics, Cancer & Mouse Models	1 s.h.	Spring
MCB:6220	Mechanisms of Cellular Organization	3 s.h.	Fall

MCB:6225	Growth Factor Receptor Signaling	1 s.h.	Spring
MBC:6226	Cell Cycle Control	1 s.h.	Spring
MCB:6227	Cell Fate Decisions	1 s.h.	Spring
MCB:6240	Inflam Cell Signal and Target Cancer Therapy	1 s.h.	Fall
MCB:6260	Graduate Molecular Microbiology	3 s.h.	Spring
MCB:6279	Graduate Bacterial Diversity and the Human Microbiome	3 s.h.	Variable
PCOL:5135	Principles of Pharmacology	1 s.h.	Spring
PCOL:5136	Phamacogenetics and Pharmacogenomics	1 s.h.	Spring

*Semester(s) offered subject to change due to enrollment, instructor availability, etc. Students should always check the course schedule at MyUI.uiowa.edu for the most up to date version of the course schedule.

Total Credit Hours for the Molecular and Genetic Research Interest Area: 25-27 s.h.