Epidemiology, PhD

Requirements

The Doctor of Philosophy (PhD) in epidemiology requires a minimum of 78 s.h. of graduate credit. Graduate students in epidemiology must maintain a Graduate College program grade-point average of at least 3.00.

Courses taken for the core, human pathology, or research area requirements must be taken on an A–F graded basis unless otherwise noted. Students must seek the permission of the program to apply coursework with grades of C or C- minus toward these three requirements. Students who receive a grade of C or lower in 7 s.h. of coursework may be dismissed from the program.

The PhD in epidemiology requires the following coursework.

Core Courses

CPH:6100, CPH:7270, and EPID:6050 may be taken on an S/U basis.

Students must retake CPH:7270 Principles of Scholarly Integrity: Public Health if they completed the course more than four years ago or if they have changed degree programs.

Course #	Title	Hours
All of these:		
EPID:4400	Epidemiology I: Principles	3
EPID:5600	Introduction to Epidemiology Data Management and Analysis	3
EPID:5610	Intermediate Epidemiology Data Analysis With SAS and R	3
EPID:6050	Research in Epidemiology	3
EPID:6100	Writing a Grant Proposal	3
EPID:6400	Epidemiology II: Advanced Methods	4
EPID:6655/ BIOS:6650/ IGPI:6650	Causal Inference	3
EPID:7400	Epidemiology III: Theories	3
BIOS:4120	Introduction to Biostatistics	3
BIOS:5120/ IGPI:5120/ STAT:5610	Regression Modeling and ANOVA in the Health Sciences	3
CPH:6100	Essentials of Public Health	2
CPH:7270	Principles of Scholarly Integrity: Public Health (taken first year in the fall semester for 0 s.h. and in the spring semester for 1 s.h.)	0-1
One of these:		
BIOS:6210/ IGPI:6210	Applied Survival Analysis	3
BIOS:6310/ IGPI:6310/ STAT:6550	Introductory Longitudinal Data Analysis	3

Human Pathology Requirement

Students must complete a human pathology course for 3 s.h. Most students choose to enroll in HHP:4390 Understanding Human Disease during the fall semester of their second year in the program. Alternatively, students with a strong biosciences background may choose to enroll in PATH:5270 Pathogenesis of Major Human Diseases.

Dissertation

Students complete at least 10 s.h. in EPID:7000 Thesis/ Dissertation. With the program's permission, students may take up to an additional 8 s.h. of this course for a total maximum of 18 s.h. applied to the degree. This course may be taken on an S/U graded basis.

Research Area Electives

Students complete 28 s.h. in research area electives. Students work with an advisor to develop a plan of study (25 s.h.) that ensures substantive knowledge in topical and methodological areas which will generate important original research in alignment with the student's dissertation interests. The department has many areas of research strength and several highlighted Interest Area course lists (under the Curriculum header in each of the interest area pages) in the fields of clinical and health services, chronic disease/life course, injury, infectious disease, and molecular and genetic epidemiology that are available to students to review in selecting their courses for the research area elective requirement.

Students must include 3 s.h. of epidemiology (prefix EPID) coursework outside of the research area in order to broaden their knowledge.

Students may select from courses numbered 4000 or above in the following subjects: epidemiology (prefix EPID), excluding EPID:5950 and EPID:5925; biostatistics (prefix BIOS); College of Public Health (prefix CPH); community and behavioral health (prefix CBH); health management and policy (prefix HMP); or occupational and environmental health (prefix OEH). The following courses outside of public health can also be considered as options for this requirement. With the permission of their advisor, students may also consider additional course options not listed here.

Course #	Title	Hours
BIOL:3314/ IGPI:3314	Genomics	3
FRRB:7001/ CBIO:7001/ PATH:7001	Molecular and Cellular Biology of Cancer	3
GENE:7191	Human Molecular Genetics	3
HHP:3500	Human Physiology	3
MICR:6247/ IMMU:6247	Graduate Immunology and Human Disease	4
MICR:6259	Graduate Bacteria and Human Disease	3-4
MICR:6267	Graduate Viruses and Human Disease	3
PCOL:5136	Pharmacogenetics and Pharmacogenomics	1
PCOL:6250	Advanced Problem Solving in Pharmacological Sciences	1
PSQF:5165/ EPLS:5165	Introduction to Program and Project Evaluation	3

SEES:4150/ GHS:4150/ IGPI:4150	Health and Environment: GIS Applications	3
STAT:6560	Applied Time Series Analysis	3

Other Requirements

Preceptorship Requirement

Doctoral students who did not complete the MS in epidemiology at the University of Iowa are required to take EPID:5950 Preceptorship in Epidemiology or demonstrate that an equivalent course has been completed, such as a completed master's thesis at another institution. This requirement must be fulfilled within one year of admission to the PhD program.

Epidemiology Journal Club

Students are required to enroll in EPID:5925 Epidemiology Journal Club: Evaluating the Literature to gain experience in reading, interpreting, and critically evaluating recently published journal articles. Students who have completed the MS in epidemiology or the Master of Public Health with the epidemiology subprogram at the University of Iowa will take this course eight times over the course of their academic career: three times as a master's student and five times as a doctoral student. Students who have completed their master's degree at another institution will take this course five times as part of their doctoral studies.

Full-time students enroll in this course for 0 s.h. Students enrolled part-time (less than 9 s.h.) who have a graduate research assistantship appointment may choose to register for 1 s.h. However, the credit earned for this course is not applied toward the minimum semester hours required for the PhD in epidemiology.

Every other week during the academic year, the journal club meets to discuss articles of interest in the field. Contact information for the journal club coordinators can be found on the Department of Epidemiology website under Preceptorship, Journal Club, and Seminar Contacts. Information about the schedule is distributed to students each semester. Students are required to achieve at least 80% attendance at journal club for three semesters during their time in the program.

Department of Epidemiology Seminar

Every week during the fall and spring semesters, the Department of Epidemiology seminar provides a forum for speakers to present information or research pertaining to diverse topics in epidemiology. Students are expected to achieve at least 80% attendance at the seminar during each semester of enrollment.

Scientific Poster Requirement

Every student is required to present at least one scientific poster at the department level and one poster at the international, national, regional, state, or university level at some point prior to graduation. A student's advisor or dissertation mentor can help determine the suitability and timeline for the poster presentation.

Seminar Presentation

In addition to the dissertation defense, students are required to make a presentation at a Department of Epidemiology seminar. It is recommended that students complete the seminar presentation and dissertation defense in the same semester, with the seminar presentation scheduled before the defense so the seminar can serve as preparation for the defense.

Human Subjects Protections (Institutional Review Board) Certification

Students are required to provide evidence that they have completed an approved education program in human subjects protection. This should be done at the time of appointment to a graduate research assistantship position, at the start of the preceptorship, or at the start of thesis/dissertation research. More information is available about the human subjects protection certification on the University of Iowa's Human Subjects Office website.

Examinations

All doctoral students must successfully complete a qualifying examination, a comprehensive examination, a dissertation prospectus, and a dissertation. The research topic and content, which vary depending on the program of study, must be approved by a student's dissertation committee.