

EPIDEMIOLOGY (PHD)

Curriculum

Graduate Committee

Dr. Ariane Rung (Graduate Program Director), Dr. Edward Peters (Department Chair), Dr. David Brett-Major, Dr. Julie Casani, Dr. Brittney Dickey, Dr. Joseph Fauver, Dr. Patrick Maloney, Dr. Abraham Mengist, Dr. Julie Petersen, Dr. Kendra Ratnapradipa, Dr. Sarah Scales, Dr. Shinobu Watanabe-Galloway, and Christopher Pierson (Graduate Student)

The PhD program in Epidemiology prepares practitioners and researchers for positions in government agencies, the private sector, and academia. Students learn to design, conduct, and analyze epidemiologic research studies, interpret research findings, and apply findings to solve public health problems or discover causes of diseases.

Students who enter the PhD program typically hold the MPH degree or have equivalent training/experience in epidemiology.

PhD Curriculum

Students enrolled in the Ph.D. program in Epidemiology are required to complete a minimum of **48 credit hours** in courses (36 credits) and dissertation (12 credits) in order to graduate.

- Students may request a transfer of up to 12 credits of epidemiology and biostatistics courses from a previous degree from an accredited graduate program. The transfer request will be reviewed by the Epidemiology Graduate Committee after the student has enrolled in the Ph.D. program. Students who receive approval for credit transfer will need to take additional courses as recommended by their Supervisory Committee to satisfy the 48-credit hour requirement.

Coursework

Students are expected to complete the courses listed below. These courses are subject to change and other courses can be substituted at the discretion of the Supervisory Committee.

Code	Title	Credit Hours
College of Public Health Required Course **		
HPRO 830	FOUNDATIONS OF PUBLIC HEALTH (Foundations of Public Health is required for students who have not completed a master's degree from a CEPH-accredited unit. Other exemptions based on previous coursework may be considered by the COPH Assistant Dean for Academic Affairs on a case-by-case basis. *) *	3
Core Courses		
GRAD 800	RESPONSIBLE CONDUCT IN RESEARCH TRAINING *	0
EPI 845	EPIDEMIOLOGIC METHODS I *	3
EPI 821	APPLIED EPIDEMIOLOGY *	3
EPI 945	ANALYTICAL EPIDEMIOLOGIC METHODS II *	3
EPI 946	EPIDEMIOLOGY IN PUBLIC HEALTH PRACTICE *	3
BIOS 818	BIOSTATISTICAL LINEAR MODELS: METHODS AND APPLICATION *	3
BIOS 823	CATEGORICAL DATA ANALYSIS *	3

BIOS 824	SURVIVAL DATA ANALYSIS *	3
BIOS 825	CORRELATED DATA ANALYSIS *	3
EPI 805	HUMAN HEALTH AND DISEASE IN PUBLIC HEALTH (Human Health and Disease in Public Health) *	3
EPI 960	EDUCATION THEORY AND APPLICATION	1
EPI 910	RESEARCH GRANT PROPOSAL DEVELOPMENT *	3
EPI 970	SEMINAR (Total 2 credits; 1 credit required prior to Comprehensive Exam)	1
Selectives – Minimum 6 courses ≥4 at 900 level		
EPI 812	CHRONIC DISEASE EPIDEMIOLOGY	3
EPI 822	HOST AND PATHOGEN FACTORS IN PUBLIC HEALTH	3
EPI 837	SOCIAL EPIDEMIOLOGY	3
EPI 835	HEALTH INFORMATION AND SURVEILLANCE FOR PUBLIC HEALTH PRACTICE	3
EPI 810	EMERGENCY PREPAREDNESS: PREVENTION	3
EPI 811	EMERGENCY PREPAREDNESS: PROTECTION	3
EPI 813	EMERGENCY PREPAREDNESS: RESPONSE	3
EPI 814	EMERGENCY PREPAREDNESS: RESPOND AND RECOVERY	3
EPI 952	MENTAL HEALTH EPIDEMIOLOGY	3
EPI 953	CANCER EPIDEMIOLOGY	3
EPI 955	ENVIRONMENTAL EPIDEMIOLOGY	3
EPI 957	SURVEY RESEARCH METHODS	3
EPI 958	EPIDEMIOLOGIC ANALYSIS OF HEALTHCARE DATA	3
EPI 941	EPIDEMIOLOGIC METHODS IN APPLIED CLINICAL GENETICS	3
EPI 924	INFECTIOUS DISEASE MODELING	3
EPI 999	DOCTORAL DISSERTATION (12 credits)	1-15

*Courses that must be completed, plus one credit of Seminar, and four selectives, prior to taking the Comprehensive Examination

** Required for students who have not completed an MPH or taken a foundational course at a CEPH-accredited institution.

PhD Competencies in Epidemiology

Name	Title
EPIPHD1	Critically evaluate the scientific literature, generate hypotheses, and apply comprehensive knowledge of epidemiologic concepts to solve public health problems.
EPIPHD2	Design and implement epidemiologic investigations and devise strategies to control biases and reduce random error.
EPIPHD3	Incorporate biological, medical, and laboratory knowledge into the practice of epidemiology.

EIPHD4	Apply advanced analytic methods to epidemiologic data.
EIPHD5	Effectively communicate and teach epidemiologic concepts.
EIPHD6	Develop a competitive grant proposal.