

EPIDEMIOLOGY (MEDICINE)

Program Information

The **Ph.D. in Epidemiology program** is in the Department of Epidemiology, which is jointly governed by the College of Public Health and Health Professions and the College of Medicine. The program requires a minimum of 90 semester credits beyond the bachelor's degree. All students must complete at least 36 credits of epidemiology core courses, 6 credits of statistics electives, 18 credits of epidemiology electives, 15 credits of general electives, and 15 credits of dissertation research. Students may also apply to graduate with one or two concentrations selected from one of seven concentration areas. All entering students who do not hold MPH or equivalent degrees are also required by the College of Public Health and Health Professions to complete an Introduction to Public Health course.

All students admitted to the Ph.D. program in Epidemiology are fully funded for four years, including a tuition waiver and a stipend. Depending on a student's source of funding, the student may work for up to 20 hours per week as a research assistant, a teaching assistant, or some combination of the both. Funding sources for students may include the student's research mentor, the department, the college, the Graduate School, or external fellowships or scholarships pursued by the student.

The core course work is designed to incorporate competencies recommended in the report of the 2002 workshop on doctoral education in epidemiology from the American College of Epidemiology and the Association of Schools and Programs of Public Health, and criteria for applied epidemiology competencies. The overall outcomes expected of all graduates are as follows:

1. Apply epidemiological methods to address critical and/or emerging public health issues through the use of:
 - Appropriate epidemiological research designs
 - Advanced statistical analysis methods for health studies
 - Data structures and measurement methods for health research
 - Depth of knowledge in an area of specialization
2. Apply ethical thinking to a questionable ethics case from the current news
3. Develop grant proposals and manage research projects
4. Write scientific papers for publication in peer-reviewed journals, and communicate research results to scientists, policy makers, and the public

Students in the Ph.D. program in Epidemiology may apply to graduate with a concentration in up to two of the following areas:

- Cancer Epidemiology
- Genetic Epidemiology
- Gero-Epidemiology
- Infectious Disease Epidemiology
- Psychiatric Epidemiology
- Clinical and Translational Science

Concentrations allow PhD students to focus their elective coursework toward specialized content areas that interest them. All concentrations offered by the Department of Epidemiology are completely optional, and students may enroll in up to two concentrations. Enrollment in a

concentration requires the approval of the student's academic advisor, research mentor, PhD Program Director, and Curriculum Committee Chair.

All concentrations require that students submit either (a) dissertation aims or (b) a first-authored publication that documents research in the area of the concentration in addition to the required courses.

The overarching goal of each concentration is to provide learners with advanced training in each respective field. This training will help prepare researchers for the frontlines of interdisciplinary team science targeted towards improving the quality of life, health, and society using epidemiologic tools and methods.

Details of the Ph.D. in Epidemiology program and application information are available at our website: <http://epidemiology.phhp.ufl.edu/about/ph-d-in-epidemiology-2> (<http://epidemiology.phhp.ufl.edu/about/ph-d-in-epidemiology-2/>).

The **Master of Science in Epidemiology (MSE) program** is a 36-credit program that prepares students for careers in the public health arena that are focused on the surveillance and prevention of illnesses among diverse populations around the world. Students will be trained in the foundational aspects of epidemiology, including person, place, and time; risk and protective factors; and the social determinants of health. Areas of focus may include chronic disease, infectious disease, geriatric, environmental, psychiatric, social, cancer, and maternal and child health epidemiology.

The thesis is required to demonstrate skill in independent inquiry and investigation, under the tutelage of a mentor. All students must complete at least 15 credits of epidemiology core courses, 8 credits of biostatistics courses, 4 credits of professional development courses, 5 credits of electives, and 4 credits of thesis research.

Graduates of the MS in Epidemiology program will be able to:

- Apply surveillance, assessment, evaluation, and other foundational epidemiological research designs to all areas of interest,
- Choose appropriate measurement and analytic methods to study health and disease in a population,
- Utilize biological, behavioral and social theory to understand how to prevent and intervene to promote the public health.

Details of the Master of Science in Epidemiology program and application information are available at our website: <https://epidemiology.phhp.ufl.edu/academics/mse/>.

Degrees Offered

Degrees Offered with a Major in Epidemiology

- Doctor of Philosophy
 - without a concentration
 - concentration in Clinical and Translational Science
 - concentration in Gero-Epidemiology
- Master of Science

Requirements for these degrees are given in the Graduate Degrees (<http://gradcatalog.ufl.edu/graduate/degrees/>) section of this catalog.

Courses

Epidemiology (PHHP/COM) Departmental Courses

Code	Title	Credits
GMS 7858	Causal Artificial Intelligence for Health Research	3
PHC 6000	Epidemiology Methods I	3
PHC 6002	Epidemiology of Infectious Diseases	3
PHC 6003	Epidemiology of Chronic Diseases and Disability	3
PHC 6009	Biology and Epidemiology of HIV/AIDS	3
PHC 6011	Epidemiology Methods II	3
PHC 6016	Social Epidemiology in Public Health	3
PHC 6041	Landmarks in Psychiatric Epidemiology	2
PHC 6194	Spatial Epidemiology	3
PHC 6517	Public Health Concepts in Infectious Diseases	3
PHC 6591	Maternal and Child Health Epidemiology	3
PHC 6598	Foundations in Precision Medicine: Genetic Epidemiology	1
PHC 6711	Measurement in Epidemiology and Outcomes Research	3
PHC 6717	Public Health Surveillance	3
PHC 6932	Psychiatric Epidemiology Online Seminar Series	1
PHC 6937	Special Topics in Public Health	1-6
PHC 6939	CPE Psychiatric Grand Rounds	1
PHC 6971	Research for Master's Thesis	1-4
PHC 7000	Epidemiology Seminar II: Critical Evaluation, Research Proposals, and Methods	2
PHC 7007	Cancer Epidemiology	3
PHC 7017	Advanced Epidemiologic Methods III	3
PHC 7038	Psychiatric Epidemiology	3
PHC 7065	Advanced Skills in Epidemiological Data Management	2
PHC 7083	Computational Data Science for Epidemiology	2
PHC 7199	Topics in Precision Medicine and Public Health Informatics	1
PHC 7427	Ethics in Population Science	2
PHC 7594	Genetic Epidemiology	3
PHC 7595	Introduction to Molecular Epidemiology	3
PHC 7727	Grant Writing for Population Health Research	2
PHC 7901	Epidemiology Literature Review and Critique (Journal Club)	1
PHC 7902	Scientific Writing for Peer Reviewed Publications for Popular Science	1
PHC 7910	International Field Epidemiology	3
PHC 7916	National Field Epidemiology	1-3
PHC 7918	Independent Study	1-3
PHC 7934	Seminar I: Epidemiology Past, Present, and Future	2
PHC 7979	Advanced Research	1-12
PHC 7980	Research for Doctoral Dissertation	1-15

College of Medicine Courses

Code	Title	Credits
GMS 5905	Special Topics in Biomedical Sciences	1-4
GMS 6001	Fundamentals of Biomedical Sciences I	5

GMS 6003	Fundamentals of Graduate Research and Professional Development	1
GMS 6090	Research in Medical Sciences	1-10
GMS 6096	Introduction to NIH Grant Writing for Biomedical Sciences	1
GMS 6405	Fundamentals of Endocrine Physiology	1
GMS 6406	Fundamentals of Pulmonary/Respiratory Physiology	1
GMS 6408	Fundamentals of Renal Physiology	1
GMS 6411	Fundamentals of Cardiovascular Physiology	1
GMS 6415	Fundamentals of Gastrointestinal Physiology	1
GMS 6491	Journal Club in Physiology	1
GMS 6780	Addiction: Neuroscience and Trends	3
GMS 6865	Quantitative Literacy for Translational Research	2
GMS 6875	Ethical and Policy Issues in Clinical Research	2
GMS 6895	CTS Journal Club	1
GMS 6903	Manuscript and Abstract Writing for Clinician/Scientists	2
GMS 6905	Independent Studies in Medical Sciences	1-10
GMS 6910	Supervised Research	1-5
GMS 6940	Supervised Teaching	1-5
GMS 6971	Research for Master's Thesis	1-15
GMS 7093	Introduction to Clinical and Translational Research	2
GMS 7877	Responsible Conduct of Biomedical Research	1
GMS 7944	Practicum in Biomedical Science Education	3
GMS 7950	Fundamentals of Biomedical Science Education	2
GMS 7979	Advanced Research	1-12
GMS 7980	Research for Doctoral Dissertation	1-15

Student Learning Outcomes

Epidemiology (PHD)

SLO1 Research Studies

Design epidemiologic research studies and analyze data to answer health-related research questions that are currently relevant to the population.

SLO2 Independent Research

Prepare to become an independent researcher in the field of Epidemiology.

SLO3 Epidemiology Concepts

Illustrate a thorough understanding of epidemiology concepts.

SLO4 Professional Behavior

Display ethical behaviors, cultural sensitivity, teamwork, professional conduct and communication, and build academic skills such as grant writing

Epidemiology (MS)

SLO 1 MSE Knowledge

Apply surveillance, assessment, evaluation, and other foundational epidemiological research designs to all areas of interest

SLO 2 MSE Skills

Utilize biological, behavioral and social theory to understand how to prevent and intervene to promote the public health

SLO 3 MSE Skills Choose appropriate measurement and analytic methods to study health and disease in a population

SLO 4 MSE Professional Behavior
Display ethical behavior, cultural sensitivity, integrity in research conduct, honesty, and teamwork