

PUBLIC HEALTH (PH) - GRADUATE COURSES

PH-601 - Public Health Systems and Practice (3 cr)

This course provides an introduction to public health concepts and practice by examining the philosophy, purpose, history, organization, functions, tools, activities, and results of public health practice at the national, state, and local levels. The course also addresses important health issues facing the public health system. Case studies and a variety of practice-related activities serve as a basis for learner participation in real world public health problem-solving exercises. This course also fosters and enhances skills related to the use of technology for accessing information and communicating with various audiences.

PH-605 - Behavioral and Social Aspects of Public Health (3 cr)

The course examines the application of social and behavioral sciences knowledge to public health. The basic principles of psychology, sociology, anthropology, and other social sciences are used to underscore the social determinants and consequences of health and health-seeking behaviors, and to understand the contribution of socio-behavioral science to our understanding of the distribution, etiology, and solution of public health problems through planned interventions.

PH-620 - Health Promotion and Education in Diverse Communities (3 cr)

This course provides a foundation for planning health promotion programs for diverse populations. It facilitates discussion of contemporary issues and challenges of health promotion and program planning. Students are provided with the knowledge and skills necessary to collaborate with communities to develop effective, efficient, culturally appropriate health promotion programs.

PH-640 - Environmental and Occupational Health (3 cr)

This course examines environmental principles, methods, risk factors, prevention and control, and policies related to human health. It also examines the biological, physical and chemical factors in the environment at the local and global levels, and how they impact human health.

PH-650 - Health Policy and Management (3 cr)

This course provides an understanding of the structure and function of the U.S. Health Care System. The general principles of planning, management, evaluation, policy, and behavior of the public health system on the local, state and federal levels are addressed. Students learn how the public health system is organized and the roles of essential stakeholders. Students analyze critical management concepts through discussion, case analysis, and practical applications in a variety of health care settings.

PH-655 - Community Health Program Planning And Development (3 cr)

This course examines the models and processes to systematically plan and evaluate public health interventions. It presents students with methods for identifying population-based needs for public health programs, developing strategies to meet those needs, and evaluating the effectiveness of these public health interventions. The course integrates knowledge and skills from research methods, epidemiology, biostatistics, proposal writing, budget planning, project management, and program evaluation.

PH-660 - Principles of Biostatistics (3 cr)

This course introduces statistical concepts and analytical methods as applied to data encountered in public health research and biomedical sciences. It emphasizes the basic concepts of experimental design, quantitative analysis of data, and statistical inferences. The course provides students a foundation to evaluate information critically to support research objectives and product claims. Introduction to a statistical computer package such as SPSS is provided.

PH-661 - Biostatistics II (3 cr)

This course is a continuation of PH-660 and expands on the statistical concepts and analytical methods as applied to data encountered in public health research. Emphasis is placed on the choice of the appropriate method for specific problems, common aspects of model construction, the testing of model assumptions through influence and residual analyses, and the use of graphical and other methods to present results that are readily understood by clinicians.

Prerequisite: PH-660

PH-670 - Finance and Economics in Public Health (3 cr)

This course engages students in economic and financial issues related to the operation of organizations, personnel, providers, and patients in the health care system. Specifically, it explores the sources and uses of financing and the built-in incentives of the health care system. It also explores this ever-changing industry, and explicitly considers the determinants of national health spending and the role of government in private and public health.

PH-680 - Emergency Management in Public Health (3 cr)

This course provides information that enables students to deal effectively with emergency management issues. Students develop an understanding of disaster preparedness, emergency management procedures and responsibilities, management mitigation, and response and recovery actions for different disasters. It also explores public health's role in bio-terrorism and dealing with people with disabilities during and after a disaster.

PH-685 - Public Health Policy and Law (3 cr)

This course provides public health students with a foundation of American health policy and law. Students learn the legal framework governing health care systems and public health, including the evolution, application, and evaluation of regulatory requirements and health policies. For the interplay among governmental and nongovernmental organizations is examined, with a focus on process improvement.

PH-690 - Global Health (3 cr)

This course reviews the main contributors to the global burden of disease and discusses current interventions and possible future approaches. Topics related to maternal and child health, nutrition, infectious disease, chronic illness, and environmental health are examined. Each section provides a historical and cultural overview and includes consideration of cultural competence and humility. Students engage in learning about country-specific health data and descriptive information about the health system.

PH-705 - Principles of Epidemiology (3 cr)

This course introduces epidemiological concepts and tools to study patterns of disease and injury, incidence, prevalence, and risk, with the goal of broadening the understanding of population health, health inequality, and the influence on public policy. Epidemiological methods as applied to environmental health, infectious disease, and the behavioral and social factors of disease are explored.

Prerequisite: PH-660

PH-710 - Public Health Nutrition (3 cr)

This course covers topics such as malnutrition, excess nutrition, complex eating disorders, maternal and child health, and chronic diseases that affect people globally. Students learn how to identify and address major nutrition-related public health problems.

PH-760 - Thesis Proposal (3 cr)

This course allows students to synthesize and apply the knowledge and skills acquired in all previous courses to develop a thesis proposal. Students prepare research question(s) and hypothesis, literature review, and a proposed methodology to answer the research question(s). Students work closely with their thesis chairperson/advisor and committee member throughout the semester to write and defend a scientifically sound thesis proposal.

Prerequisite: PH-770

PH-765 - Thesis Data Analysis and Interpretation (3 cr)

This course is the second part of the thesis process. It focuses on students' ability to collect and analyze data, and interpret the findings. Students use the methodology presented in their proposal to conduct their research and develop their thesis. Students must complete their thesis independently, and are expected to work closely with their thesis chairperson/advisor and committee member throughout the semester. Students are expected to write and defend a scientifically sound thesis.

Prerequisite: PH-760

PH-770 - Research Methods in Public Health (3 cr)

This course examines the nature of the scientific method and basic techniques in social science research as applied to the collection, analysis, and interpretation of social and public data. It explores the use of quantitative, qualitative, and mixed methods as different approaches to research design, and covers the ethical issues in research involving human subjects.

PH-771 - Epidemiological Research Methods I (3 cr)

This course is designed to provide an introduction to epidemiological research theory, methods, and practice. The course focuses on the design, implementation, analysis, and interpretation of cohort, case-control, and cross-sectional epidemiological studies. Students will become proficient in the interpretation of epidemiologic data and the application of epidemiologic approaches to the investigation of infectious and non-infectious diseases.

Prerequisite: PH-705

PH-772 - Epidemiological Research Methods II (3 cr)

This course is a continuation of PH-771, Epidemiological Research Methods I, and as such will further refine students' ability to analyze and interpret data from various epidemiologic study designs. Students gain experience in analysis of original research reports, writing critiques of epidemiologic articles, data management, preparing appropriate tables and graphs, designing and analyzing observational studies.

Prerequisite: PH-771

PH-775 - Public Health Geographic Information Systems (3 cr)

This course provides students with the knowledge of Geographic Information Systems (GIS) and Spatial Analysis as they apply to public health. Students focus on the collection, maintenance, and interpretation of spatial data to study health concerns, specifically disease clusters, access to health care, health outcomes, risk factors, health status disparities, and emergency response operations. Students will use a variety of downloadable software such as ArcGIS to gain hands-on experience and supplement the case studies provided.

Prerequisite: PH-660

PH-776 - Public Health Surveillance Methods (3 cr)

This course prepares students to design, evaluate, and operate a public health surveillance system; analyze and interpret surveillance data; apply surveillance to various settings, diseases, and public health emergencies; understand how surveillance is used to develop public policy; and appreciate the legal and ethical implications of surveillance. Students learn the procedures used to investigate and track infectious and communicable diseases as well as non-infectious chronic diseases in the United States and developing countries.

Prerequisite: PH-660

PH-780 - Internship in Public Health (3 cr)

In this course students integrate the theories learned in the classroom with real world practical experiences. The Public Health internship allows students to gain valuable skills to be effective in the workplace and to demonstrate public health competencies to their assigned tasks.

Designation: Field Experience

PH-785 - Culminating Experience in Public Health (3 cr)

This course serves as the Capstone experience for the Biostatistics and Epidemiology concentration of the MPH degree. Students utilize the information acquired from the core and concentration courses to design, execute, and present a scholarly project. The course integrates knowledge and competencies in project management, teamwork, research methods, and presentations approaches. Taken in the Final Semester.

PH-790 - Public Health Capstone I (3 cr)

The Capstone course is designed to synthesize the knowledge and skills acquired in all previous courses and apply them to the development of a thesis proposal or a capstone project. Students are expected to work closely with their capstone advisor, committee member and external partner throughout the semester. The capstone is undertaken near the end of the course of study. Principles of Biostatistics, Principles of Epidemiology and Research Methods in Public Health must be completed prior to registering for the Capstone course. Capstone Options: Students who choose to develop a thesis proposal are guided through the preparation of the research question(s) and hypothesis, and literature review. A community-based capstone project option requires collaboration with an institution such as a hospital, an NGO or a community center. The aim is to address a public health issue in an under-served community through the lens of management, quality improvement, program planning, policy, or practice.

Prerequisite: PH-660 and PH-705 and PH-770

PH-795 - Public Health Capstone II (3 cr)

Capstone II is designed to synthesize the knowledge and skills acquired in all previous courses and apply them to the development of a thesis proposal or a capstone project. Students are expected to work closely with their capstone advisor, committee member and external partner throughout the semester. Capstone II culminates in a presentation of the thesis proposal or capstone project to the capstone advisor, committee member, external partner and college community. The capstone is undertaken near the end of the course of study. Students who choose to develop a thesis proposal are guided through the preparation of a proposed methodology for answering the research question(s), completing PH760. A community-based capstone project option requires collaboration with an institution such as a hospital, an NGO or a community center. The aim is to address a public health issue in an under-served community through the lens of management, quality improvement, program planning, policy, or practice.

Prerequisite: PH-790