

Public Health

College of Public Health

A defining characteristic of the area of public health is its focus on population groups rather than individuals. Public health professionals are concerned with the health of communities, relying heavily on collaboration with local, state, and national entities to improve the health status of their targeted populations. With the current interest in health care reform, bioterrorism and preparedness, concerns over managed care, and other factors impacting the nation's health care system, the need for highly trained public health professionals is increasing. The College of Public Health offers the Master of Public Health degree. The MPH is an applied professional/graduate degree designed for highly motivated students who have either a previously earned professional degree or a baccalaureate degree and substantial interest in public health. Unique sequencing of courses, community-based program activities, and field/laboratory research provide students with multiple opportunities to define their course of study in the four areas of concentration, , Epidemiology, Environmental/Occupational Health, Health Behavior, or Health Systems & Policy Analytics. The MPH degree is designed to prepare graduates for entry and advancement in public health careers in public, non-profit and proprietary health care organizations.

Professionals with the MPH. hold important roles in a variety of public and private settings, e.g., local, state, and national health departments, health care facilities, military service, social service agencies, private industry, universities, and community-centered health education facilities. In these positions, they can be involved directly with the development, implementation and assessment of efforts to improve the health of the public and prevention of disease. The curriculum is designed to provide skills and knowledge upon which to build or enhance a career in public health. Unique sequencing of courses, community-based program activities, and field/laboratory research provide students with multiple opportunities to define their public health specialty and provide a broad overview of the disciplines of public health.

The Master of Public Health degree requires a minimum of 42 credit hours of study for completion. All students must complete a minimum of 18 semester hours of required core course work and at least 18 hours of specialty work in one of the four areas of concentration. In addition, a three credit-hour field practicum course (CPH 609), and a three credit-hour final integrative Capstone Project (CPH 608) are required. The dual MD/MPH. and PharmD/MPH. degrees are currently available.

Admission Requirements

Admission into the MPH program is competitive, and consideration is given to academic background, a history of service, interest in the field, a personal statement, career plans, and letters of recommendation. Applicants must also have achieved an acceptable score on the Graduate Record Examination (GRE) or the Graduate Management Admission test (GMAT).

Applicants must complete a UK Graduate School Application and make a separate application through the Schools of Public Health Application Service (SOPHAS.org), the centralized application process for accredited schools/colleges of public health. Applications will not be reviewed until the SOPHAS application is completed. For additional information concerning the University of Kentucky, College of Public Health and its degrees, call (859) 218-2096, send e-mail to ukcph@uky.edu , or go to <http://www.uky.edu/publichealth/>

Graduate Courses

- CPH 551 Comparative Health Systems (3)
- CPH 600 Health Services and Systems Organization (3)
- CPH 601 Occupational and Environmental Health I (3)
- CPH 604 Foundations Of Health Behavior I (2)
- CPH 605 Epidemiology (3)
- CPH 608 Public Health Capstone (3)
- CPH 609 Public Health Practicum (1-3)
- CPH 610 Injury Epidemiology & Control (3)
- CPH 612 Infectious Disease Epidemiology (3)
- CPH 615 Cancer Epidemiology (3)
- CPH 617 Environmental/Occupational Epidemiology (3)
- CPH 620 Occupational & Environmental Health II (3)
- CPH 621 Understanding and Communicating Environmental Health Risks (3)
- CPH 622 Toxic Agents and their Implications in Public Health (3)
- CPH 636 Data Mining in Public Health (3)
- CPH 640 Women's Health (3)
- CPH 641 Public Health and Anthropology (3)
- CPH 643 Measuring Health Behavior: Quantitative & Qualitative Approaches (3)
- CPH 644 Rural Health Disparities (3)
- CPH 645 Food Systems, Malnutrition and Public Health (3)
- CPH 648 Eliminating Racial and Ethnic Health Disparities (3)
- CPH 650 Public Health Systems Administration (3)
- CPH 653 Public Health Law & Policy (3)
- CPH 660 Disease Mapping & Data Visualization (3)
- CPH 662 Public Health Response to Terrorism, Disasters and Emergencies (3)
- CPH 663 Introduction to Public Health Practice (3)
- CPH 698 Occupational Safety and Health: Field Surveys (3)
- CPH 711 Chronic Disease Epidemiology (3)
- CPH 712 Advanced Epidemiology (3)
- CPH 716 Proseminar in Occupational Health and Safety (3)
- CPH 746 Research Methods and Program Evaluation for Health Behavior (3)

- CPH 763 Ethics for Public Health (3)

Course Descriptions

CPH 551 COMPARATIVE HEALTH SYSTEMS. (3) An overview of healthcare system structure in selected countries with attention to their developmental history, financing, and delivery infrastructure. Prereq: Enrollment in a public health degree program or permission of instructor.

CPH 600 HEALTH SERVICES AND SYSTEMS ORGANIZATION. (3) An introduction to the health care delivery system in the United States, including its composition, functioning, the interrelationships of organizations and professional groups within the system in various settings, health care terminology, and major problems and issues in the delivery of health services. Prereq: College of Public Health graduate program enrollment or permission of instructor.

CPH 601 OCCUPATIONAL & ENVIRONMENTAL HEALTH I. (3) This course provides an introduction to the theory and practice of assessing, correcting, controlling, and preventing environmental health hazards that may adversely affect the health of current and future generations. Prereq: Undergraduate chemistry and biology, or permission of instructor.

CPH 604 FOUNDATIONS OF HEALTH BEHAVIOR I. (2) This course will demonstrate how changes in health behavior can and do impact population-level indicators of morbidity and mortality. Within the context of the socio-ecological framework, students will focus on health behavior theories and interventions targeting the intra- and interpersonal levels of the framework. Students will apply an intervention mapping approach to identify priority needs for health promotion and design health promotion programs. Students will be able to make clear linkages between health promotion practices and the overarching goals of public health. Selection and design of strategies will be achieved through an understanding of theory-based approaches that have been widely applied in health promotion research. Prereq: Admission to MPH program or permission of instructor.

CPH 605 EPIDEMIOLOGY. (3) This is an initial graduate level course in the principles of epidemiology and applications in preventive medicine and environmental health. The course consists of lectures and informal discussions. Principles and methods of epidemiologic research with a focus on issues of study design and analysis will be presented. Prereq: Graduate student in good standing in the MPH program, MSPH program, or community health nursing, or consent of instructor.

CPH 608 PUBLIC HEALTH CAPSTONE. (3) To be successful in the MPH degree program and the profession, students are expected to demonstrate excellence in communication skills both orally and in writing. The 'manuscript' format for the capstone project is intended to familiarize students with the rigors of preparing manuscripts for professional journals. This course provides course credit for students who successfully complete the MPH capstone project and oral final examination. Prereq: MPH students only.

CPH 609 PUBLIC HEALTH PRACTICUM. (1-3) The public health practicum is designed as an integrative experience in the workplace. The practicum is an opportunity to apply classroom theories and methods

under the guidance of an experienced public health practitioner with faculty oversight. Prereq: Admission to MPH program or permission of instructor.

CPH 610 INJURY EPIDEMIOLOGY AND CONTROL. (3) The epidemiological basis for understanding the distribution and determinants for traumatic injury and poisonings including both intentional and unintentional events. Topics include sources of data, methodological approaches to studying injuries, evaluation of injury interventions and the link between epidemiology and public health policy impacting injuries. Prereq: PM 620 and/or permission of instructor.

CPH 612 INFECTIOUS DISEASE EPIDEMIOLOGY. (3) This course applies the principles of infectious disease epidemiology to infectious and emerging diseases of public health importance. Prereq: CPH 605 or consent of instructor.

CPH 615 CANCER EPIDEMIOLOGY. (3) This course applies and integrates the principles and tools of epidemiology to the study of cancer. The course includes discussion of the burden of various kinds of cancer across the United States and the world by age, gender, and race/ethnicity. The underlying biology behind the development of cancer in humans, cancer surveillance, the epidemiology of various kinds of cancer by category of major risk factors such as human behavior, (e.g. smoking and alcohol use), endogenous/exogenous hormones, viruses, environmental/occupational exposures, and diet, and courses of data and methods for evaluating cancer screenings, measuring the impact of risk factors, determining the incidence of cancer and cancer clusters, measuring patterns of care, and understanding the determinants of survival. Prereq: CPH 605 or consent of instructor.

CPH 617 ENVIRONMENTAL/OCCUPATIONAL EPIDEMIOLOGY. (3) A study of work-related and environmental exposures and hazards associated adverse health outcomes. Integrating the fields of occupational and environmental epidemiology. Prereq: Enrollment in a Public Health degree program and CPH 605/PM 620 or consent of instructor.

CPH 620 OCCUPATIONAL & ENVIRONMENTAL HEALTH II. (3) This course addresses advanced theories and practices of identifying, assessing, and controlling occupational and environmental hazards that may adversely affect the health of communities and working populations. The course emphasizes harmful effects of non-chemical hazards, such as radiation, noise, hypoxia, and physical agents that lead to morbidity and mortality. However, evaluation and control measures will cover many types of hazardous exposures, including those from chemical exposures. Prereq: CPH 601 or consent of instructor.

CPH 621 UNDERSTANDING AND COMMUNICATING ENVIRONMENTAL HEALTH RISKS. (3) Public health practitioners and researchers require knowledge of how exposure to environmental and occupational contaminants can adversely affect the health of both current and future generations. Public health professionals also require skills to communicate clearly with multiple stakeholders about opportunities to assess, control, and/or prevent complex environmental health hazards. In this course, students will develop foundational environmental health concepts and build cultural competencies for effective stakeholder communication. Prereq: Admissions to College of Public Health program or consent of instructor.

CPH 622 TOXIC AGENTS AND THEIR IMPLICATIONS IN PUBLIC HEALTH. (3) This course provides an overview of chemical agents within the environment, their interaction with the human organism, and resultant public health implications. The goal of this course is to utilize toxicological information to create, understand, and explain control strategies that protect and improve public health. Prereq: CPH 601.

CPH 636 DATA MINING IN PUBLIC HEALTH. (3) This course concerns statistical techniques for and practical issues associated with the exploration of large public health data sets, the development of models from such data sets, and the effective communication of one's findings. Prereq: BST 600 and CPH 535, or good standing in Statistics or Epidemiology and Biostatistics graduate programs.

CPH 640 WOMEN'S HEALTH. (3) This course will cover a variety of women's health topics including substance abuse, violence against women, nutrition, chronic diseases, reproductive and sexual health, and menopause. The course content will also emphasize the social, economic, environmental, behavioral, and political factors associated with women's health. We will address these content areas using a lifecourse perspective. The epidemiology, measurement and interpretation of these factors, and how these factors can be translated into interventions, programs, and policy, will be of major interest. Our focus will be primarily within the United States though we will touch on some aspects of global health. Prereq: Enrollment in the MPH program or permission of instructor.

CPH 641 PUBLIC HEALTH AND ANTHROPOLOGY. (3) Examination of how the perspectives and methods of anthropology can be and have been applied in public health research and intervention projects. Prereq: Enrollment in the MPH. or DrPH program, or consent of instructor.

CPH 643 MEASURING HEALTH BEHAVIOR: QUANTITATIVE & QUALITATIVE APPROACHES. (3) This course focuses on measurement, the key component of research. Topics include types of measurement; units of measurement; theory and measurement; reliability and validity; survey development; how and where to find "good" measures of health behaviors; quantitative and qualitative approaches; and cultural considerations in measurement. The course relies upon the socioecological framework, acknowledging that health behaviors (as well as their determinants, consequences, and correlates) can and should be measured at all levels of society (e.g., individual, relational, community, and societal). The goal of the course is to train the student in how to measure health behaviors both responsibly and effectively. Prereq: Enrollment in the MPH, or consent of instructor.

CPH 644 RURAL HEALTH DISPARITIES. (3) Through class meetings, course readings, and assignments, this course will provide students with a comprehensive overview of issues pertaining to health disparities of rural populations by examining current programs and policies, relevant literature, public health practice, and quantitative and qualitative research pertaining to the health and well-being of rural populations.

CPH 645 FOOD SYSTEMS, MALNUTRITION AND PUBLIC HEALTH. (3) Exploration of the role of the global food system in shaping food consumption and the implications for public health. Prereq: Enrollment in College of Public Health or consent of instructor.

CPH 648 ELIMINATING RACIAL AND ETHNIC HEALTH DISPARITIES. (3) This course will help the learner understand differences in minority populations in order to help build and lobby for the infrastructure needed to prevent excess disease and death among underserved populations. A special emphasis in this class will be placed on understanding the role of culture in influencing the adaptation of health attitudes, practices, and behaviors. An additional focus will be placed on health status, current trends, and health indicators for special populations. Prereq: Graduate student in Public Health and others by instructor permission.

CPH 650 PUBLIC HEALTH SYSTEMS ADMINISTRATION. (3) This course introduces students to foundational concepts of health policy, the US health care and public health systems, and areas of management that are critical to the design, development and evaluation of health policy. Prereq: College of Public Health major or consent of instructor.

CPH 653 PUBLIC HEALTH LAW & POLICY. (3) Overview of public health law with emphasis on topics and materials used by public health practitioners, as well as the use of law to advance a public health agenda. Prereq: Graduate status or approval of instructor.

CPH 660 DISEASE MAPPING & DATA VISUALIZATION. (3) This course will introduce students to basic concepts in disease mapping and data visualization using a variety of software packages. These will include Excel from Microsoft, EpiInfo from the Centers for Disease Control & Prevention (CDC), QGIS from the open-source QGIS Project, and more. Students will use these tools to gain experience producing figures and tables appropriate for publication in epidemiologic manuscripts. Prereq: CPH 605 or consent of instructor.

CPH 662 PUBLIC HEALTH RESPONSE TO TERRORISM, DISASTERS AND EMERGENCIES. (3) This course will focus on the public health concepts, history, methods, planning, and response preparedness to weapons of mass destruction, terrorism, natural and human-made disasters, and other health emergencies. Prereq: Enrollment in a Public Health degree program and CPH 605, or consent of instructor

CPH 663 INTRODUCTION TO PUBLIC HEALTH PRACTICE. (1) This course is to be a practical introduction to public health at the national, state, and local levels. This course is intended for students in the Master of Health Administration, PhD in Gerontology, and PhD in Epidemiology & Biostatistics. Prereq: Enrollment in Master of Health Administration, PhD in Gerontology, PhD in Epidemiology & Biostatistics or consent of instructor

CPH 698 OCCUPATIONAL SAFETY AND HEALTH: FIELD SURVEYS. (3) The course provides students with the opportunity to visit various work sites and industries in the Appalachian region. This course will provide students with onsite, direct experience recognizing hazards and evaluating control measures to reduce occupational health and safety risks. This is a cross-disciplinary course for graduate students in occupational safety, industrial hygiene, environmental health, occupational health nursing, ergonomics, injury prevention, agricultural health and safety, occupational epidemiology and occupational medicine. Prereq: CPH 620 Occupational Health.

CPH 711 CHRONIC DISEASE EPIDEMIOLOGY. (3) A survey course on the leading chronic diseases in the U.S., including cardiovascular disease, cancer and diabetes with focus on surveillance and risk factors. Prereq: Enrollment in a Public Health degree program, CPH 605/PM 620 Introduction to Epidemiology or consent of instructor.

CPH 712 ADVANCED EPIDEMIOLOGY. (3) This course provides students with the understanding of advanced issues in the design, analysis, and interpretation of epidemiologic studies. The course text and associated readings will focus on study designs and the methodologic approaches to addressing bias, confounding, and error in the design of population-based health research. The development of a systematic approach for evaluating evidence from epidemiologic studies as it relates to demonstrating causality will be emphasized. Focusing on study design, measures of associations, confounding, interaction, sources of bias and error, the student will gain an understanding of epidemiology and its role in the medical and public health sciences. Prereq: Enrollment in a public health degree program and CPH 605 or consent of instructor.

CPH 716 PROSEMINAR IN OCCUPATIONAL HEALTH AND SAFETY. (0-1) This course will provide students, in a seminar format for 6 sessions during the semester, presentations from occupational health and safety professionals from a variety of disciplines and experiences. The seminar is 2.5 hours long at each session. Knowledge regarding workplace exposures and related health outcomes will be provided. Students should acquire basic understanding of current topics in the fields of occupational medicine, nursing, safety, industrial hygiene, epidemiology, biostatistics, mining, and agriculture.

CPH 746 RESEARCH METHODS AND PROGRAM EVALUATION FOR HEALTH BEHAVIOR. (3) This course provides the student with basic knowledge about the design and analysis of research in the field of health promotion. The theory, design, applications, and analytic strategies used for various types of research are presented in a sequential format. Goals of the course include: 1) gaining the ability to critically evaluate research in health promotion practice, 2) achieving competence in research methodology, and 3) understanding the conceptual application of analytic techniques to data. This course also prepares second-year MPH students concentrating in Health Behavior to successfully construct and defend their capstone in April of the current academic year. Prereq: CPH 672 and CPH 643, or permission of instructor.

CPH 763 ETHICS FOR PUBLIC HEALTH. (3) The focus of this class is on applied ethics and its application to public health issues. In addition to examining current issues that might arise during the timeframe of the course, we will address the following: ethical frameworks, theories, and approaches; a unique public health ethics; social justice; ethics surrounding infectious diseases, including surveillance and control; health disparities; environmental and occupational health issues; genetics; smoking cessation; end-of-life issues; conundrums regarding vulnerable populations; public health research; and ethical leadership of public health organizations. Prereq: Enrollment in the MPH program or consent of instructor.