

PUBLIC HEALTH (PH)

Courses

PH 5000. Controversies in Public Health. 3 Credits.

Public health and health policy issues provoke controversy. Compelling scientific evidence suggests strategies to prevent disease and illness, but progress is driven by scientific advances and societal norms. Highlights current health issues through the lens of controversies to determine what impedes our collective progress towards a healthier society for individuals and communities. Prerequisite: Junior, Senior, or Graduate student; Honors College Sophomores by Instructor permission.

PH 5001. Epidemiology for Practice. 3 Credits.

Epidemiology is the basic science of understanding disease at the population level. Provides coverage of epidemiologic principles and techniques without detailed mathematical analyses. Emphasis will be on the application of epidemiologic principles to public health and health care issues and settings, through the use of readings, online resources, case studies, and class discussion. Prerequisite: Junior, Senior, or Graduate student; Honors College Sophomores by Instructor permission.

PH 5002. Public Health Advocacy. 3 Credits.

Explores how students can use their voices and position within public health to promote health and dismantle disparities. Identifies how to use public health advocacy in the different disciplines within public health and evaluate the importance of stakeholders, education, awareness, and community connectedness. Utilizes discussion-based practices to explore a myriad of existing public health campaigns and enhance communication skills and practices when advocating for positive health outcomes. Prerequisites: Junior, Senior, or Graduate student; Honors College Sophomores with Instructor permission.

PH 5003. Public Health Planetary Perspective. 3 Credits.

Focuses on developing transdisciplinary Public Health solutions to some of our planet's greatest threats. Introduce Public Health students to these threats, and using a case-based approach, delve into why they are the direct result of our actions. Understanding humans' role in causing these threats is the first step to developing a plan to preserve our planet for future generations. Prerequisites: Minimum Junior standing, Graduate student, or Honors College Sophomore standing with Instructor permission.

PH 5990. Special Topics. 1-18 Credits.

See Schedule of Courses for specific titles.

PH 6000. Health Equity. 3 Credits.

Covers health equity frameworks, theories, and research approaches. Explores cultural competence, healthcare access, and health equity measurement, and then examines different population perspectives on health equity. Develops skills necessary to understand health equity concepts, critique literature, and ultimately to work towards achieving health equity.

PH 6010. Public Health & Health Policy. 3 Credits.

Course focuses on current public health issues, barriers to improving population health, and policy tensions between science, economics, education, politics, government, media, and public health.

PH 6011. Cancer Epidemiology. 3 Credits.

Prepares students to design and implement studies of cancer epidemiology in the U.S. and globally. After gaining an understanding of the statistics used to measure cancer incidence and prevalence, students will explore risk factors for various cancers in order to learn relevant factors for oncogenesis, focusing on vulnerable populations.

PH 6020. Epidemiology I. 3 Credits.

Epidemiology is the study of disease distribution and determinants in populations; we will define populations and estimate the distribution of health-related conditions and their determinants. Pre/co-requisites: College-level Mathematics course; Bachelor's degree.

PH 6030. Biostatistics I: App Rsch in PH. 3 Credits.

Biostatistics I (Applied Research Methods in Public Health) includes biostatistics, research designs, and qualitative approaches, and includes emphasis on evaluating research articles in public health. Pre/co-requisites: College-level Mathematics course; Bachelor's degree.

PH 6040. Environmental Public Health. 3 Credits.

Explores major areas of environmental public health (EPH), including environmental hazards, exposures, and related health outcomes, including emerging topics in environmental public health.

PH 6060. Social & Behavioral Public Hlth. 3 Credits.

This course addresses the behavioral, social and cultural factors related to individual and population health, and health disparities over the life course.

PH 6070. Epidemiology 2. 3 Credits.

Exposure to advanced epidemiological concepts, such as effect modifications and modeling using multiple variables, related to establishing causal relationships from observational data. Prerequisites: PH 6020, PH 6030.

PH 6080. Environmental Public Health 2. 3 Credits.

Students explore public health within the context of natural and human-made environments, and examine methods of practice and emerging environmental health topics. Prerequisite: PH 6040.

PH 6090. Public Health Biostatistics II. 3 Credits.

An advanced applied research methods course with the goal of helping students understand and apply multivariate regression analyses, non-parametric methods, survival analysis and advanced concepts with confounding and effect modification, and interpreting data in public health applications. Prerequisite: PH 6030.

PH 6100. Public Health Law and Ethics. 3 Credits.

Public health law examines the government's authority, at various jurisdictional levels, to improve the health of the general population within societal limits and norms. Prerequisite: Bachelor's degree.

PH 6102. Design Clin&Translational Res. 3 Credits.

Seminar emphasizing the skills for designing and executing clinical and translational research.

PH 6103. Conduct Clin&Translational Res. 3 Credits.

Seminar emphasizing the ethics and mechanics of clinical and translational research.

PH 6110. Global Public Health. 3 Credits.

This course explores global public health challenges affecting people primarily in developing or resource- constrained countries. Cultural competency concepts will be embedded. Prerequisite: Bachelor's degree.

PH 6120. Food Systems & Public Hlth. 3 Credits.

This course explores food systems' influence on public health, and how technology, policy, biology, epidemiology, and historical knowledge can support a healthier food system. Prerequisite: Bachelor's degree.

PH 6140. Environmental Risk & Risk Comm. 3 Credits.

This course explores theory, policy and techniques for environmental risk communication from the viewpoints of government, industry, special interest groups, and the general public.

PH 6150. Public Health Surveillance. 3 Credits.

Explores surveillance of infectious and non-infectious diseases, health behaviors and population characteristics, fundamental to nearly all fields of modern public health practice. Prerequisite: PH 6020.

PH 6160. Social Determinants of Health. 3 Credits.

Uses an epidemiological lens to examine the major social variables that affect the health of a population. Close analysis of how our social structures impact health disparities, examines theories and empirical data to examine how gaps in our social structures lead to health disparities and inequalities.

PH 6170. Mgmt in Hlth Services&Med Care. 3 Credits.

Addresses major issues and challenges faced by health services managers relating to established and evolving social, economic, and professional policies in a context of practical problem assessment and appropriate resolution.

PH 6180. Improving Health in Population. 3 Credits.

Descriptive and chronic disease epidemiology, health determinants, and community resources will be utilized to develop strategies and interprofessional skills to improve individual and population health. Exploration of roles of health professionals in the care of populations with an emphasis on the US health care system.

PH 6200. Public Health Communications. 3 Credits.

An introduction to the field of Public Health Communications, focusing on three areas: Crisis and Emergency Risk Communications, Data Communications/visualization, and Social Marketing (or Behavior Change Communications). While each area relies on a theoretical foundation, the focus is professional application of the communication techniques.

PH 6201. One Health: Theory to Practice. 3 Credits.

Explores the One Health concept and approach. Covers the One Health Triad, the One Health practitioner, One Health competencies, One Health education and communication, and non-scientific disciplines involved in One Health decision-making and problem-solving. Enables the development of hard, One Health skills that can be integrated into daily public health practice. Readings create the course framework; primary sources will be provided to complement the material.

PH 6210. Controversies in HlthEconomics. 3 Credits.

Covers health economic concepts, principles and theories, as well as the application of these methods to a range of practical scenarios. Examines the advantages and disadvantages of various health economic techniques and health economic evaluation.

PH 6211. Global Health Leadership. 3 Credits.

Prepares students for leadership roles in global public health organizations. After identifying governance and financing structures, students apply management and leadership principles through case studies, emphasizing application of relevant analytical skills. Topics include leadership principles, human resources management, global health ethics, social marketing, global health financing, and future trends in global health.

PH 6220. One Health: Zoonoses. 3 Credits.

Zoonoses and vector-borne disease account for the majority of emerging and re-emerging diseases. Covers the drivers that influence infection in animals and humans, tools used for disease monitoring and prevention, and policies and programs aimed at prevention. Cross-listed with: ABIO 6090.

PH 6240. Public Health Informatics. 3 Credits.

Public health practice relies on timely, thorough and reliable information from a variety of sources. Informatics is an emerging field that employs information technology tools and methods to address public health challenges and to improve public health outcomes.

PH 6250. Investigating DiseaseOutbreaks. 3 Credits.

Investigating disease outbreaks is a fundamental responsibility of public health. This course covers field epidemiology outbreak investigation methods, working on an investigatory team, interacting with relevant agencies, and the selection and implementation of appropriate interventions.

PH 6260. Legal Issues in Health Care. 3 Credits.

Provides an overview of the legal environment related to healthcare. Using court decisions and other law, explores medical malpractice, negligence, liability, patient rights, healthcare reform and compliance with such laws as Medicaid, Medicare, and HIPAA.

PH 6270. Climate Change & Human Health. 3 Credits.

Global climate change is increasing extreme weather events, influencing air and water quality, and shifting vector habitats. Students will explore basic climate science, health, consequences of climate change, and public health approaches to assessment, communication, projection, mitigation, and adaptation.

PH 6280. Health in Humanitarian Crises. 3 Credits.

Offers an in-depth view of the complexities of responding to natural and conflict related disasters. Introduces a range of topics that lay the framework for humanitarian response and will generate further learning.

PH 6300. Exploring Healthcare Systems. 3 Credits.

Explore a healthcare system outside the USA. Common elements in all healthcare systems are required for effective and efficient delivery. Field visits, presentations, and cultural exposure are included in the program. Prerequisite: Instructor permission.

PH 6310. Climate Change Emergencies. 3 Credits.

Floods, droughts, severe heatwaves, wildfires, and disruptions to the food supply are a few anticipated direct effects of climate change. Examines each of these public health challenges, and their potential to cause/significantly contribute to complex humanitarian emergencies, civil unrest, military conflict, and large-scale migration, as well as policy implications going forward.

PH 6320. Maternal and Child Health. 3 Credits.

Introduces major national programs and policies that directly affect women and children in the US and utilize program case studies from around the world. Provides an understanding of social determinants of health and the life course approach to analyze these programs and policies.

PH 6330. Global Mental Health. 3 Credits.

Provides a firm grounding in what is known about mental health issues affecting global populations. Examines a wide range of issues, ranging from how mental illness is identified to innovative treatment approaches and how cultural considerations influence mental health promotion efforts.

PH 6510. Strategic Mgmt in Public Hlth. 3 Credits.

Focuses on developing skills for strategic public health leadership, with an emphasis on interprofessional collaboration and systems thinking. Students will design and implement effective public health initiatives, including strategic planning, data-driven decision-making, community engagement, and social entrepreneurship. Prepares students to lead impactful and sustainable improvements in public health organizations and systems.

PH 6511. Finance & Mgmt in Public Hlth. 3 Credits.

Covers essential financial management competencies for achieving strategic public health goals. Includes modules on budgeting, resource allocation, and financial techniques, alongside accounting practices specific to nonprofit, healthcare, and government sectors. Students will learn to propose and manage resources, analyze financial conditions, and develop new revenue streams to support organizational objectives.

PH 6512. Pedagogy, Innovation & Public Health Ed. 3 Credits.

Students will learn about the evolution of public health education, engage with interprofessional education, and develop effective course designs. They will formulate teaching strategies that incorporate active learning, case studies, and practice-based learning. Activities will enhance students' ability to deliver learner-centered educational experiences and prepare them to lead in the evolving field of public health pedagogy.

PH 6920. Culminating Project Experience. 1-6 Credits.

Prepares students to apply knowledge and skills in a culminating project experience that reflects research and practice needs of actual populations. Prerequisites: PH 6010, PH 6020, PH 6030, PH 6070.

PH 6990. Special Topics. 1-18 Credits.

See Schedule of Courses for specific titles.

PH 6993. Independent Study. 1-18 Credits.

A course which is tailored to fit the interests of a specific student, which occurs outside the traditional classroom/laboratory setting under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

PH 6995. Graduate Independent Research. 1-18 Credits.

Graduate student work on individual or small team research projects under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.