

# PUBLIC HEALTH (PU)

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## **PU500: Foundations in Public Health**

This course provides an introduction to the field of public health. The course familiarizes you with the historical contexts of public health and its underlying philosophy and values relevant to current practice. The course examines the determinants of health with an emphasis on their role in the development and contribution of community and individual health issues. You will explore the critical components of the public and global health infrastructures and the impact of public health in addressing health concerns locally, nationally, and globally.

Quarter Credit Hours: 4 | Prerequisite: None

## **PU501: Fundamentals of Public Health and Health Systems**

In this course, you will learn foundational information about the field of public health, including basic behavioral health theories and methodologies that help inform public health strategy. The function and interoperability of domestic and international health systems will be explored in a manner that will provide perspective into the scope and structure of public health practice. By the end of the course, you will be equipped to think critically about current and past public health interventions, find credible resources for public health research and trends, and understand best practices and the various types of public health career paths.

Quarter Credit Hours: 4 | Prerequisite: None

## **PU505: Health Behavior**

This course provides a conceptual grounding in theoretical approaches to health behavior, emphasizing the use of the social ecological perspective to examine factors that influence health behavior and health outcomes. You will apply health behavior theories and models to real-world scenarios encountered in public health and health education.

Quarter Credit Hours: 4 | Prerequisite: None

## **PU508: Social and Behavioral Theory and Frameworks**

This course provides information regarding the social and behavioral theories and frameworks utilized in public health. You will learn how individuals and groups operate within social settings and how their actions are shaped by a multitude of influences. You will learn to critically evaluate, apply, and develop social and behavioral theories and frameworks through a combination of theoretical study, case analyses, and practical applications. The course will highlight the practical utilization of these theories to address public health challenges and foster constructive changes for individuals and communities.

Quarter Credit Hours: 4 | Prerequisite: None

## **PU520: Principles of Epidemiology**

This course introduces the epidemiologic methods, concepts, and issues that are critical for the assessment, analysis, and evaluation of epidemiological data. You will study epidemiologic methods used in surveillance, outbreak investigation, and epidemiologic measures, and apply these methods to relevant public health issues.

Quarter Credit Hours: 4 | Prerequisite: None

## **PU525: Biostatistics for Public Health**

In this course, you will learn statistical methods for the description and analysis of public health data. You will develop statistical vocabulary, learn methods for descriptive data analysis, study the fundamentals of probability and sampling distributions, learn methods for statistical inference and hypothesis testing based on one or two samples, and become familiar with categorical data analysis and linear regression. Data analysis will be conducted in SPSS.

Quarter Credit Hours: 4 | Prerequisite: None

## **PU530: Environmental Health**

This course presents an overview of the basic concepts of environmental health. You will explore the relationships between human health and environmental contaminants that can impact disease and overall wellness. You will explore how humans are exposed to contaminants and resulting health effects. This course will draw on epidemiology and toxicology concepts to evaluate interventions to reduce exposures at different levels including behavior changes, engineering controls, and policy regulations.

Quarter Credit Hours: 4 | Prerequisite: None

## **PU535: Public Health Biology - A Global Perspective**

The impact of biological processes in infectious and chronic disease, as related to the mechanisms of causation, disease transmission, host risk factors, and host vulnerabilities, is presented. The underlying pathophysiologic mechanisms and internal and external triggers are studied to help maintain health and wellness, prevent and treat disease, and plan control strategies and effective interventions to improve global health on the individual and population level.

Quarter Credit Hours: 4 | Prerequisite: None

## **PU545: Disaster Management**

This course provides an overview of emergency preparedness and disaster management, covering the incident command system, phases of emergency management, public health emergency preparedness (PHEP) capabilities, emergency operations center activities, epidemiologic response, and addressing the needs of vulnerable populations during disasters. You will learn how to prepare for and address disruptions in public health systems during disasters.

Quarter Credit Hours: 4 | Prerequisite: None

## **PU550: Public Health Leadership and Administration**

Leadership in public health requires a diverse skill set. In this course, you will study the leadership styles and attributes of individuals, organizations, and populations in a variety of public health settings. You will study the definition of leadership, the variety of leadership types, team dynamics, leadership development, and collaboration among leaders and will learn how to apply these concepts along with cultural and ethical considerations that can be applied in a multitude of public health institutions.

Quarter Credit Hours: 4 | Prerequisite: None

## **PU555: Foundations of Public Health Research**

This introductory course provides a foundational introduction to public health research, focusing on ethics, research protocol, study design, and analysis. You will explore various research methods, including sampling, surveying, interviewing, case studies, focus groups, and data analysis. Emphasis will be placed on ethical research practices. By the end of the course, you will have gained essential skills to design methodologically sound research and will develop transferable skills valuable in the public health field.

Quarter Credit Hours: 4 | Prerequisite: None

## **PU565: Qualitative and Quantitative Methods**

In this course, you will be introduced to qualitative and quantitative research methods and learn when and how to apply each type. With a guided step-by-step approach, this course will explore how to use, report, and apply both quantitative and qualitative research methodologies.

Quarter Credit Hours: 4 | Prerequisite: None

**PU570: Chronic Disease Epidemiology**

In this course, you will analyze the distribution of chronic disease based on various risk factors, such as age, race/ethnicity, environmental exposures, and lifestyle. You will be introduced to the current status of chronic disease and control programs, methods used in chronic disease surveillance, and modifiable risk factors. Some major chronic diseases, such as cancer, cardiovascular disease, chronic lung disease, diabetes, and arthritis will be discussed in detail.

Quarter Credit Hours: 4 | Prerequisite: None

**PU580: Environmental Epidemiology**

This course introduces the epidemiologic methods often used in environmental epidemiology investigations to study the health impacts of environmental exposures. The course will provide an overview of major study designs in environmental epidemiology. You will apply these methods to relevant environmental health issues. Through case studies, you will explore evidence for health impacts from environmental exposures. You will develop skills in reading, evaluating, and interpreting epidemiology studies. You will gain experience in how to communicate environmental epidemiology findings on both occupational and environmental exposures to a variety of stakeholders, including the general public.

Quarter Credit Hours: 4 | Prerequisite: None

**PU605: Public Health Programming**

This course provides an overview of designing, implementing, and evaluating public health programs to address population health challenges. You will learn to apply theories and evidence-based frameworks to assess community needs and develop effective and culturally relevant interventions in program planning.

Quarter Credit Hours: 4 | Prerequisite: None

**PU615: Grant Writing for Health Promotion Projects**

This course provides an overview of the grant writing process including strategies to locate relevant requests for proposals (RFPs), define quantifiable project goals, consider budget constraints and financial management of grant funds, and identify program evaluation methods to demonstrate program efficacy.

Quarter Credit Hours: 4 | Prerequisite: None

**PU625: Global Health - Cultural and Health Systems Impacts**

This course introduces you to the main concepts of global health. You will review the global burden of disease using key measurements. You will analyze the social, political, and economic determinants of health and investigate global health disparities. You will investigate the global impact of health policies as well as interventions for disease prevention globally.

Quarter Credit Hours: 4 | Prerequisite: None

**PU635: Survey of Environmental and Occupational Health**

This course presents an overview of environmental and occupational health. You will explore the relationships between human health and environmental contaminants that can impact disease and overall wellness. You will investigate how humans are exposed to contaminants through air, water, and food, as well as consider ways to reduce these exposures. Occupational safety and health will be introduced as well as control measures to keep workers safe. This course will draw on epidemiology and toxicology concepts to evaluate interventions to reduce exposures at different levels including behavior changes, engineering controls, and policy regulations.

Quarter Credit Hours: 4 | Prerequisite: None

**PU650: Infectious Disease Epidemiology**

In this course, you will explore concepts pertaining to infectious disease epidemiology. Topics include historical context, terminology, types of infectious diseases, epidemiological calculations, and vaccines and vaccine development. You will also explore the global and infrastructure challenges of tracking and managing infectious diseases in the modern world.

Quarter Credit Hours: 4 | Prerequisite: None

**PU660: Global Health - Elements, Issues, and Trends**

This course investigates current global health issues and trends. You will explore several specific global health issues such as communicable disease, chronic disease, malnutrition, water and sanitation, violence against women, and child health. You will investigate causes of and trends in these issues as well as research and brainstorm potential solutions, including global policy. You will assess global health topics from the perspective of social, economic, environmental, and cultural determinants of health and through a lens of health equity.

Quarter Credit Hours: 4 | Prerequisite: None

**PU680: Practical Skills in Public Health I**

You will demonstrate public health knowledge and skills by working within a health organization. Through this onsite learning experience, you will engage with other public health professionals and train for the public health workforce. An onsite preceptor and University faculty member will evaluate student performance.

Quarter Credit Hours: 4 | Prerequisite: PU550 and permission from the Clinical Placement Team

**PU685: Issues and Concepts in Maternal and Child Health**

This course will provide you with foundational information in public health analysis and practice while concentrating on the study of population-based health care as it pertains to women of all ages and children from infancy to adolescence. You will learn how to integrate policy, professional communication, research, and leadership skills to advocate for more equitable environments for this population both domestically and internationally.

Quarter Credit Hours: 4 | Prerequisite: None

**PU690: Practical Skills in Public Health II**

In a continuation of Practical Skills in Public Health I, you will further develop practical skills related to working in the public health sector. Through this onsite learning experience, you will engage with other public health professionals and train for the public health workforce. An onsite preceptor and University faculty member will evaluate your performance. You will also complete written assignments in the course in order to reflect on skills and knowledge applied in the field of public health.

Quarter Credit Hours: 4 | Prerequisite: PU680 and permission from the Clinical Placement Team

**PU699: Master of Public Health Capstone**

The Master of Public Health (MPH) Capstone provides a culminating, integrative experience that allows you to apply and synthesize the public health core disciplines acquired through academic coursework. In this course, you may complete either a thesis project or an applied field practice experience. Through successful completion of this course, you will have attained relevant experiences and professional deliverables that highlight occupational potential in the public health workforce.

Quarter Credit Hours: 4 | Prerequisite: Last term or permission from the Dean