

MPH@GW Course Catalog

The George Washington University Milken Institute School of Public Health's online Master of Public Health (MPH) program enables students to learn how to improve public health on local, national and global levels. Medicine, business and education are woven into the curriculum to develop professionals who have the unique skill set to address complex health challenges around the world.

The MPH@GW curriculum allows students to personalize their program through elective offerings while emphasizing public health principles. The program requires 45 credits of coursework, including core public health courses, program-specific courses, elective courses, and hands-on experiences.

Core Public Health Courses

Biological Concepts in Public Health*

PUBH 6001, 2 credits

The goals of this course are (1) to provide an overview of current knowledge about the biologic mechanisms of diseases that are major causes of death and disability in both developed and developing countries; (2) to understand and interpret the reciprocal relationships of genetic, environmental, and behavioral determinants of health and disease within an ecologic context; and (3) to provide opportunities to analyze, discuss, and communicate biologic principles of disease across the biologic and the public health spectrum.

**Please note this course is only for students who have matriculated PRIOR to Fall 2019.*

Biostatistical Applications for Public Health

PUBH 6002, 3 credits

This is an introductory course in the application of biostatistical principles to critical analysis of retrospective studies, prospective studies and controlled clinical trials, as well as studies in the health services literature. This course focuses on selection, basic calculations and interpretation of statistical methods for detection of significant associations and differences. Among the topics covered are multinomial experiments, contingency table analysis, correlation, linear regression, analysis of variance, analysis of covariance and logistic regression.

Principles and Practices of Epidemiology

PUBH 6003, 3 credits

This course will introduce the general principles, methods and applications of epidemiology — the basic science of public health. Topics covered in the course include approach and evolution of epidemiology, history of epidemiology, outbreak investigation, measures of disease frequency, standardization of disease rates, study design, measures of association, hypothesis testing, bias, effect modification, causal inference, disease screening and surveillance. Case studies apply these concepts to a variety of infectious, acute and chronic health conditions affecting the population.

Social and Behavioral Approaches to Public Health

PUBH 6007, 2 credits

This course examines the complex relationships between social context, behavior and health at both the individual and community levels. It identifies key social and behavioral aspects of health in the United States and throughout the world and presents theories that facilitate interventions aimed at improving health and well-being. The course will explore the role of social and community factors, including race, ethnicity and culture, in both the onset and solution of public health problems as well as the interrelationship between the social and behavioral sciences.

Fundamentals of Public Health Program Evaluation

PUBH 6009, 2 credits

Introduction to the fundamentals of program evaluation; selection of appropriate designs for program evaluation studies that produce and interpret evidence informing improvements in public health; options for evaluation study design and evidence generation, including qualitative data collection and analysis methods.

Environmental and Biological Foundations of Public Health

PUBH 6011, 3 credits

This introductory course examines the connection between population health and exposures to chemical, physical, and biological agents in the environment. Students will become familiar with the many dimensions of how environmental systems are interconnected with all living things on the planet. Special attention will be given to the biological sciences as they relate to environmental impacts. The course will apply systems thinking to integrate key concepts in biology and environmental science along with principles of sustainability to illustrate how public policies and practices at the local, national and global level affect population health. Ethical considerations as they relate to unequal distribution of environmental risk will be discussed throughout this course as well.

Fundamentals of Health Policy

PUBH 6012, 2 credits

This course provides an overview of the structure, financing, and delivery of public health and health care in the United States, compared to international models. The course also introduces the core elements of policy analysis and develop skills in analyzing a public health problem and presenting possible solutions both orally and in writing.

Practicum Experience*

PUBH 6014, 2 credits

The practicum provides the opportunity for MPH students to apply knowledge and skills acquired through their program of study. A planned, supervised and evaluated hands-on experience is an essential component of a public health professional degree program. These opportunities can take place in a variety of agencies or organizations. Each program customizes Practicum Experience requirements to meet students' needs.

**Please note this course is only for students who have matriculated PRIOR to Fall 2019 and have already completed PUBH 6006*

Essentials of Public Health Practice and Leadership I

PUBH 6021, 1 credit

This course provides the skills necessary for being an effective practitioner and leader; optimizing self-management and contributions in teams as public health professionals.

Essentials of Public Health Practice and Leadership II

PUBH 6022, 1 credit

This course provides an overview of the development of organizations and systems in public health; organizational management tools and collaborative, outcome-oriented advocacy techniques. PUBH 6021 may be taken as a corequisite. Prerequisite: PUBH 6021.

Prerequisites: PUBH 6021

Interprofessional Education Experience

PUBH 6023, 0 Credits

Completion of an interprofessional education experience (IPE) is required for all MPH students. Maximizes the student's capacity for collaboration with others to better address public health and health

care challenges. A variety of options are available for students to complete this requirement before graduation. Restricted to MPH students.

Prerequisites: PUBH 6002, PUBH 6003, PUBH 6004 or PUBH 6011 , PUBH 6021, PUBH 6006 or 6012 and PUBH 6007.

Culminating Experience I and II

PUBH 6060, 1 credit/PUBH 6061, 1 credit

The goal of the Culminating Experience is for students to integrate and apply the skills, knowledge, theories, principles and methods of public health practice to public health issues. It is through this course that faculty evaluate the extent to which the student has mastered the body of knowledge and can demonstrate proficiency in the required competencies. The Culminating Experience is delivered in two parts. This first part of the course (PUBH 6060) consists of students brainstorming, developing and beginning implementation of an independent project. The second part of the course (PUBH 6061) requires students to complete a final paper on their approved topic and present to their peers.

Prerequisites: PUBH 6001, PUBH 6002, PUBH 6003, PUBH 6004 or PUBH 6011 , PUBH 6006 or 6012 and PUBH 6007.

Program-Specific Courses

In addition to core courses, you will complete program-specific courses that focus on individual public health areas.

Practical Data Management and Analysis for Public Health

PUBH 6052, 2 credits

This course will introduce students to the practical aspects of data set creation, data management, rudimentary statistical analysis, and tabular and graphical presentation of results. Through hands-on experience, students will learn how to create codebooks, enter and clean data, and derive new variables from existing ones. Material will be grounded in examples drawn from common situations in prevention and community health, such as needs assessments and various forms of program evaluation.

Prerequisite: PUBH 6002 and PUBH 6003

Comparative Global Health Systems

PUBH 6442, 2 credits

This course examines what national health systems are, how they differ and how they are performing. Health systems will be analyzed through four different lenses: health care organization, health workforce development, health care financing and health policy development. The course compares health systems and health reforms in seven regions of the world and draws lessons on how health system performance might be improved.

Planning and Implementing Health Promotion Programs

PUBH 6500, 3 credits

In this course, students will develop the skills to effectively plan, implement and manage programs that address public health problems for defined populations in a variety of settings.

Prerequisite: PUBH 6007

Introduction to Public Health Communication and Marketing

PUBH 6503, 3 credits

This course will address the theory, research and practice of health communication. Coursework will focus on the application of health communication theories, principles and techniques, as well as marketing constructs and concepts, to advance public health through practitioner-oriented health communication and social marketing campaigns and programs. Students will examine communication theories and methods used in promoting health and preventing disease. This course will cover a wide range of public health subjects, from tobacco control to HIV/AIDS prevention and more, and examine messaging, research and the application of theory to campaigns in many areas.

Elective Courses

You may concentrate your electives in a particular area of public health that interests you or select courses from a range of public health areas to design a personalized, holistic MPH education. You must complete all core and program-specific coursework prior to beginning elective coursework.

Community Engagement and Advocacy

PUBH 6054, 2 credits

The course provides public health practitioners with tools and strategies for understanding, respecting and collaborating with community groups and organizations to promote healthy behaviors. Students focus on the development of practical skills to harness available resources in a community to advocate for

healthy living and positive health outcomes. Students work in teams of two or three to complete assignments.

Researching Violence Against Women and Girls

PUBH 6058, 2 credits

This course provides a detailed overview of the intersection of violence against women and girls (VAWG) and public health with regard to the demonstrated impact that violence has on the health of the survivor, her current and future children, and communities. Through readings, lectures and assignments, students are acquainted with the methods for conducting research on VAWG. The class builds on methods learned in other public health courses and covers ethics, qualitative and quantitative research design, and evaluation interventions specific to VAWG, culminating in the development of a full research proposal.

Prerequisite: PUBH 6002 and PUBH 6003

Global Environmental and Occupational Health

PUBH 6128, 2 credits

This course examines critical global environmental and occupational health topics in low- and middle-income countries. Factors contributing to the global burden of disease are emphasized. Principles from behavioral sciences, development economics, risk assessment, epidemiology, social sciences and development economics are incorporated to highlight potential solutions to environmental health problems. Focus is placed on metrics used to measure impacts and areas for future research.

Prerequisite: PUBH 6004 or 6011

Water, Sanitation and Hygiene (WASH) in Low-Income Countries

PUBH 6132, 2 credits

This course is designed to introduce students to both development and disaster settings in low-income countries where contaminated water, inadequate sanitation and poor hygiene (WASH) are the cause of serious health problems. Students gain practical experience applying WASH methods in the field. In this course, important concepts in WASH will be covered so that students can understand what is needed to develop, implement, monitor and evaluate a WASH program or a WASH component of multi-sector programs. The course emphasizes the need to develop effective, appropriate, accessible and affordable WASH interventions to reduce the global burden of disease.

Prerequisite: PUBH 6004 or PUBH 6011

Social Dimensions in Climate Change and Health

PUBH 6133, 3 credits

This course introduces students to the social dimensions of climate change. Students examine the drivers of climate change and outcomes, with particular focus on health dimensions, obstacles, vulnerabilities, inequality and adaptation as well as technical and social solutions. Students explore how psychological, social and institutional factors function in all these domains. Synchronous sessions are spent engaging in planned group exercises and group presentations. Students should come to class prepared to explore their understanding of each assigned reading.

Researching Climate Change and Human Health

PUBH 6135, 3 credits

This course focuses on the effects of climate change on human health using evidence compiled by the National Climate Assessment (NCA). NCA themes are used to guide each week's topics, which include widespread impact, the ecological context, oceans of change, infrastructure, water resources, energy, land use, heat, air quality and exposure assessment. Risk assessment and environmental engineering serve as the disciplinary bases from which health evidence is examined. By reading and discussing research studies, students emerge from the course knowledgeable about current climate change and more proficient in interpreting study findings.

Prerequisites: PUBH 6003, PUBH 6004 or 6011

Introduction to Environmental and Occupational Epidemiology

PUBH 6136, 3 credits

This course explains epidemiologic research designs and applies epidemiologic methods to the study of environmental and occupational health problems. Environmental and occupational exposure assessment methods are covered, along with specific design aspects of cross-sectional, case-control, cohort and case crossover studies. Course material includes sources and evaluation of biases and confounding, and survey and questionnaire design. Written and oral communication skills are emphasized throughout this discussion-based course.

Prerequisites: PUBH 6002, PUBH 6003, PUBH 6004 or PUBH 6011

Public Health and Law

PUBH 6335, 3 credits

Designed for students in health professions and law, this course examines how law can both promote public health and conflict with the constitutionally protected rights of individuals. It introduces and examines the legal concepts that underlie the public health system and inform public health policy-

making in the United States. Topics include the role of law in public health care and policy (e.g., governmental powers vs. civil liberties and public health governance); the law's effect on major areas of public health activity (e.g., communication, health promotion, immunization, screening, treatment, isolation, quarantine, surveillance, research and economic activity); how the law can both promote public health and conflict with the rights of individuals protected under the U.S. Constitution, legal concepts that underlie the public health system and inform public health policy-making; major areas of public health activity; the future of public health and an introduction to the global public health law infrastructure.

Law, Medicine and Ethics

PUBH 6368, 3 credits

This course will explore legal, ethical and policy issues that arise in the biomedical arena. The course will address controversial and challenging questions concerning the definitions of life and death, the nature of personal identity, the requirements of justice and the boundaries of liberty. We will draw on legal, medical and ethical/philosophical literature in examining these issues.

Prerequisites: PUBH 6335

Prescription Drugs: Policy and Public Health

PUBH 6390, 3 credits

This course introduces students to fundamental concepts and issues related to prescription drugs, policy and public health. Students review key policies and public health programs related to each stage of a prescription drug's life cycle, including congressional funding, public and private approaches to increase access to prescription drugs, and exceptions to international laws that allow some countries to violate prescription drug patents to improve the health of impoverished citizens. Throughout this course, students will be asked to reflect on evidence-based approaches that address the public health challenges of prescription drugs. The assignments in the course are real-world assignments that allow students to express their ideas and thoughts in forums beyond the classroom setting.

Global Health Frameworks

PUBH 6400, 2 credits

This course provides an overview of current issues in global public health, with particular emphasis on low and middle-income countries. The course is designed to be both a first course for students entering the field of global health as well as an update on current technical policy issues for advanced students who may have considerable experience. While taking this course, students may identify areas in which they want to gain more knowledge and skills, such as health sector reform and organization and management of health systems, community health and primary health care, humanitarian assistance and refugee health, international nutrition, disease prevention and control, and social and behavioral interventions.

Global Health Diplomacy

PUBH 6450, 2 credits

This course introduces students to the concept of global health diplomacy, starting with historical case studies of how diplomacy has been used to advance health agendas and, conversely, how health issues have been used to improve diplomatic relations between countries. This course explores formal and informal health diplomacy and multi-stakeholder health diplomacy. Students examine studies on how different countries have devised health diplomacy strategies. The course challenges students to interpret health-related agreements, negotiate a position and assess the policy context while trying to advance a health agenda.

Monitoring and Evaluation of Sexual and Reproductive Health Programs in Low- and Middle-Income Countries

PUBH 6451, 2 credits

This course is designed to give students a practical overview of key sexual and reproductive health challenges in low- and middle-income countries. Students develop insight into how to design programs to address challenges such as family planning, abortion, maternal health and gender-based violence. The course is structured in three sections. Section 1 provides an overview of sexual and reproductive health conditions relevant for low- and middle-income countries. Section 2 focuses on strategies appropriate to sexual and reproductive challenges. Section 3 covers monitoring and evaluation approaches to assess program effectiveness in this field. Students complete a series of assignments building to a project proposal designed to address a specific sexual and reproductive health problem in a country of their choosing.

Prerequisites: PUBH 6437 or PUBH 6009, PUBH 6500 and PUBH 6503.

Social and Behavior Change Communication in Middle- to Low-Income Countries

PUBH 6452, 2 credits

This course will illustrate the ways in which social and behavior change communication (SBCC) influences behavior change in resource-constrained settings. The overall objective of the course is to demonstrate the ways in which behavior change and sociocultural theories underpin the development of SBCC programs in politically, culturally and socially diverse settings. The course will make clear the importance of generating and applying high-quality evidence. Real-world SBCC interventions will be used to illustrate the challenges faced when implementing programs in settings that require the coordination of international donors, host country governments and implementing organizations.

Prerequisites: PUBH 6007 and PUBH 6503

Global Vaccinology

PUBH 6455, 3 Credits

This course provides concepts, methods, and tools for making new and existing lifesaving vaccines more accessible to individuals in low- and middle- income country settings. Recommended for second-year MPH students.

Prerequisites: PUBH 6002 and PUBH 6003

Public Health in Humanitarian Settings

PUBH 6480, 2 credits

This course provides both historical and contemporary analyses of public health in humanitarian emergencies. Students explore the evolution of emergency relief in terms of governance, technical priorities and effectiveness. Coursework combines instruction on the technical aspects of public health interventions with in-depth consideration of why and how public health interventions should be implemented. The course examines the roles of diverse humanitarian donors, representatives of the UN, nongovernmental organizations, technical agencies and the beneficiaries themselves and reviews the actions of each, their operational advantages and their performance in select situations. Consideration is given to how and why sound public health interventions should be implemented in both emergency and chronic humanitarian settings.

Global Health Programs and Approaches to the Control of Infectious Diseases

PUBH 6486, 2 Credits

This course provides strategies for the control of infectious diseases with a focus on low and middle income countries; identifying and critiquing goals, strategies, and challenges of major global health intervention programs designed to prevent and control infectious diseases.

Prerequisites: PUBH 6002 and PUBH 6003

Evaluation of Food and Nutrition Programs and Policies

PUBH 6489, 1 Credit.

This course is an introduction to major global food and nutrition issues, strategies used to address these problems, and commonly-used program impact theories and evaluation frameworks; application of evaluation methods and approaches to nutrition and food programs and policies.

Prerequisite: PUBH 6437 or 6009

Cost Effectiveness Analysis of Health Promotion Interventions

PUBH 6508, 3 credits

The course provides an introduction to the theoretical basis for and practical skills needed to estimate the effectiveness, population impact, cost of health promotion interventions, application to policy and cost-effectiveness, and cost-utility analyses. Case studies and presentations allow students to apply these skills and to critically evaluate the assumptions and methods used to incorporate economic evaluation into public health. The course addresses the need to place economic evaluation into the broader context of the implementation, equity and political considerations driving prioritization of public health promotion investments. Students should be familiar with basic algebra and statistics.

Prerequisites: PUBH 6002, PUBH 6003 and PUBH 6006 or 6012

Preventing Health Disparities

PUBH 6514, 2 credits

The purpose of this course is to provide students with an understanding of how social, political and economic factors contribute to disparities (e.g., racial, gender, geographical) in health care and how to use evidence-based approaches to address health disparities. Upon completion of this course, students will be able to understand and measure methods to address health care disparities. This course reviews theoretical frameworks and methodological tools for students to conduct research and develop interventions. The main objectives for this course include gaining the skills to evaluate, discuss and develop the programs and policies designed to address disparities in health care.

Qualitative Methods in Health Promotion

PUBH 6530, 2 credits

This course provides an introduction to qualitative data collection and analysis for public health practice and research. The course presents the philosophy, goals and basic methods of qualitative research as applied in various public health disciplines. Data collection techniques explored include in-depth interviewing, mapping, participant observation, focus groups and other systematic methods of qualitative data collection. After completing the course, students will be able to prepare an interview guide, conduct an in-depth interview and write up the results from a qualitative project. Students will also become familiar with working collaboratively with a multidisciplinary team.

Prerequisite: PUBH 6007

Women's Health

PUBH 6552, 2 Credits

This course discusses issues of women's health through the life cycle. The process of critically evaluating women's health research and issues.

Global Child Health.

PUBH 6563, 2 Credits

This course discusses elements of science, policy, challenges, and successes of global child health; focus on low and middle income countries and children under five years of age. Learn the burden of disease and associated risk factors; cost-effective interventions and tools.

Social Marketing: Theory and Practice

PUBH 6571, 2 credits

This course focuses on the use of marketing principles and techniques to develop population-based health promotion and disease prevention programs. The emphasis is on learning how to incorporate marketing techniques to address the diverse range of issues and problems that are encountered in the modern-day practice of public health. Students in this skills-based course will study and work in teams to apply a range of marketing strategies to real-world situations.

Prerequisite: PUBH 6503

Marketing Research for Public Health

PUBH 6572, 3 credits

This course focuses on the use of marketing research techniques to better understand customers of public health programs and thereby improve program design, implementation and effectiveness. A range of qualitative and quantitative techniques are studied for their relevance to program planning, development, continuous improvement and outcome evaluation.

Food Systems in Public Health

PUBH 6612, 2 Credits

This course provides a systems approach to understanding food systems and associated public health issues. How the current food system evolved, and how issues such as climate change and population growth may affect food systems in the future. The role of public health practitioners in meeting the population's need for safe, sufficient, and nutritious food. Policies, programs, and proposals aimed at creating healthier, more sustainable food systems.

Fundamentals of Nutrition Science

PUBH 6619, 3 credits

The goal of this course is to provide students with fundamental background in nutrition science to enable them to effectively apply their understanding of nutrition science toward improving diet and nutritional status in the broader context of public health. Students in this course will describe food sources, recommended intake levels, biochemical roles, mode of digestion, absorption and metabolism, and special considerations for each macronutrient and micronutrient. Students will conduct nutrition assessment and study designs in nutrition science research as well as investigate the role of nutrition in chronic disease. Current topics in nutrition science will also be discussed.