

PH.550 (EXTRADEPARTMENTAL STUDIES)

Courses

Course location and modality is found on the BSPH website (<https://publichealth.jhu.edu/courses/>).

PH.550.001. English for Academic Purposes I.

PH.550.002. English for Academic Purposes II.

Focuses on academic writing skills including documentation styles, and combines Saturday class meetings with online assignments and one individual conference.

PH.550.600. Living Science Ethics - Responsible Conduct of Research. 1 Credit.

Fosters the responsible conduct of scientific research using a combination of lectures, discussion and analysis of case studies. Includes topics: data management, conflict of interest, scientific misconduct, questionable research practices, responsible authorship, peer review, collaborations with peers and industry, trainee-mentor relationships, research ethics and regulatory requirements of the conduct of animal and human research, and the scientist as a responsible member of society.

PH.550.601. Implementation Research and Practice. 3 Credits.

Distinguishes implementation science from traditional research and practice. Combines didactic methods and group activities to explore the rapidly evolving topic of implementation as it pertains to public health research and practice. Provides an overview of the concepts, theories, tools, and methods used to advance implementation research and practice. Presents key principles of implementation science from a multidisciplinary perspective and provides practical applications of those principles in both practice and research-based settings.

PH.550.602. Interprofessional Education Activity.

Provides the opportunity to participate in a case study highlighting the essential role of teams and teamwork in building multi-sector collaborations and partnerships in population health.

PH.550.603. Fundamentals of Immunology. 3 Credits.

Introduces the major molecular and cellular components of the immune system and provides a broad understanding of the biological concepts associated with the induction and regulation of innate and adaptive immune responses. Explores major mechanistic topic areas that include the innate recognition of pathogens, the molecular nature of antigens and antigen presentation; molecular basis for antibody and T-cell receptor structure and diversity; cytokine signaling in immune activation, T cell lineage commitment, cellular basis for antibody production, cellular basis for T cell activation and cellular immunity, and central and peripheral tolerance.

PH.550.604. Qualitative Reasoning in Public Health. 2 Credits.

Provides students with a broad overview of qualitative methods and concepts used in the public health sciences. Emphasizes the conceptual foundations of qualitative research and how it is used in public health.

PH.550.605. History of Public Health. 3 Credits.

PH.550.606. Milestones in Public Health. 1 Credit.

Provides a broad overview of public health milestones through the lens of diverse public health faculty spanning from molecular biology, vaccine policy, injury, and micronutrient supplementation to health disparities, legal issues, bioethics, and health security. Reviews a milestone with each lecture as viewed by an individual faculty and provides opportunity for questions and discussion.

PH.550.607. MPH Seminar in Public Health Topics. 1 Credit.

Provides a broad overview of public health topics through lectures given by faculty across the Departments and Centers of the School. Provides exposure to these issues and discussions that may help students further refine their MPH interests, goals, and future projects.

PH.550.608. Problem Solving in Public Health. 4 Credits.

Uses divergent public health issues to illustrate a systematic problem solving process for use in addressing public health problems. Includes defining the problem, measuring its magnitude, understanding the key determinants, developing a conceptual framework of the relationships between the key determinants, identifying and developing intervention and prevention strategies (either interventions or policies), setting priorities among intervention options, understanding barriers to implementation and evaluation, and developing an effective communication strategy. Consists of lectures, discussions, small-group exercises, a group project, and individual assignments.

PH.550.609. Life and Death in Charm City: Histories of Public Health in Baltimore, 1750 to the Present. 3 Credits.

Critically explores a range of important topics in the history of public health in Baltimore from the mid-18th century to the present, including: migration and health; sewers and water supply; infectious disease control (for example, tuberculosis and STDs); housing and lead poisoning; rodent control. Recurrent themes are racial inequality, the geography of poverty and the multiple challenges of urban government. Focuses on the city of Baltimore, but the issues discussed are placed in their wider national and international contexts and take into account broad historical developments in the theory and practice of public health.

PH.550.610. Using Generative Artificial Intelligence (AI) to Improve Public Health. 1 Credit.

Generative artificial intelligence (AI) has the potential for profound impact on all aspects of modern culture, including the practice of public health. Rather than seeing generative AI purely as a threat ("Don't use ChatGPT to write your papers"), this course takes an alternative approach, asking "how can we use generative AI tools to improve the public's health?" Having a solid foundation in the both the capabilities and limitations of generative AI can help students produce good outcomes and prevent bad ones. Direct use of these tools will give students a skills-based foundation in the effective use of these potentially transformative tools. We expect there to be broad student interest in this topic, and a course on generative AI in public health will help advance the School's leadership position in cutting-edge public health education.

PH.550.611. DrPH First Year Seminar I.

Provides first-year DrPH students with an understanding of program requirements, including required coursework, the DrPH practicum, the comprehensive written exam, and the dissertation. Prepares students for summarizing and organizing the scientific literature types of scientific inquiry, e.g., qualitative, quantitative, and mixed methods.

PH.550.612. DrPH First Year Seminar II.

Provides first-year DrPH students with an understanding of program requirements, including required coursework, the DrPH practicum, the comprehensive written exam, and the dissertation. Prepares students for summarizing and organizing the scientific literature types of scientific inquiry, e.g., qualitative, quantitative, and mixed methods.

PH.550.613. DrPH First Year Seminar III.

Provides first-year DrPH students with an understanding of program requirements, including required coursework, the DrPH practicum, the comprehensive written exam, and the dissertation. Prepares students for summarizing and organizing the scientific literature types of scientific inquiry, e.g., qualitative, quantitative, and mixed methods.

PH.550.614. DrPH First Year Seminar IV.

Provides first-year DrPH students with an understanding of program requirements, including required coursework, the DrPH practicum, the comprehensive written exam, and the dissertation. Prepares students for summarizing and organizing the scientific literature types of scientific inquiry, e.g., qualitative, quantitative, and mixed methods.

PH.550.620. DrPH Proposal Planning Seminar I.

Provides a grounding in research study design and supports students as they begin to think about their thesis topics and research. Familiarizes students with identifying research questions, developing a conceptual framework, and developing a study design. Focuses on alternative epistemologies.

PH.550.621. DrPH Proposal Planning Seminar II.

Provides a grounding in research study design and supports students as they begin to think about their thesis topics and research. Familiarizes students with identifying research questions, developing a conceptual framework, and developing a study design. Focuses on alternative epistemologies.

PH.550.622. DrPH Proposal Planning Seminar III. 1 Credit.

Provides a grounding in research study design and supports students as they begin to think about their thesis topics and research. Familiarizes students with identifying research questions, developing a conceptual framework, and developing a study design. Focuses on alternative epistemologies.

PH.550.630. Public Health Biology. 3 Credits.

PH.550.631. Biological Basis of Public Health. 3 Credits.
Discusses molecular, biochemical, cellular and immunological methodology and approaches for the mechanistic understanding, treatment and prevention of human diseases, and for understanding disease susceptibility. The focus will be on the application of biological methods and approaches to such critical issues as infectious disease, cancer, neurodegenerative disease, COPD, environmental toxicant effects on early development, and reproductive anomalies and their treatment.

PH.550.714. Secondary Uses of Electronic Health Record Data. 3 Credits.

Introduces students to concepts, methods, and issues related to the application of analytics to Electronic Health Record (EHR) data. Covers the use of EHR data to define and identify populations and sub-populations of patients, evaluate common metrics in health care, and improve patient safety and care quality. Emphasizes the use of EHR data in hospital settings.

PH.550.800. MPH Capstone Extrdepartmental. 2 Credits.

The MPH capstone is an opportunity for students to work on public health practice projects that are of particular interest to them. The goal is for students to apply the skills and competencies they have acquired to a public health problem that simulates a professional practice experience.

PH.550.840. P.H. Special Studies and Research. 1 - 22 Credits.**PH.550.844. Current Issues in Public Health: COVID-19 Pandemic Response. 2 Credits.**

Explores topics related to clinical investigation presented by faculty experts from within and outside of Johns Hopkins. Addresses issues related to biomeasurement, the design of randomized clinical trials, challenges with observational cohort studies, studies focusing on special populations (pediatric age group, pregnant subjects, international studies), and research fraud.

PH.550.845. Comprehensive Or Preliminary Oral Exam for Part Time International DRPH Students. 2 Credits.

Since US Immigration laws require that all International students must be enrolled full time when on campus, students must complete their departmental/program comprehensive examination or their School preliminary oral examination enrolled as a full-time student during the time period of the exam.

PH.550.850. MPH MBA Internship. 12 Credits.

MPH MBA Internship

PH.550.853. Seminar for MPH Concentration in Social and Behavioral Sciences I. 1 Credit.**PH.550.854. Seminar for MPH Concentration in Social and Behavioral Sciences II. 1 Credit.****PH.550.855. MA Public Health Biology Thesis. 5 - 6 Credits.**

Provides an opportunity for students to, in consultation with a faculty mentor from the Dept of Biochem and Molecular Bio, Environmental Health or Molecular Microbiology and Immunology, prepare a critical, scholarly paper on an agreed upon subject area.

PH.550.860. Academic & Research Ethics at BSPH.

Examines academic and research ethics at BSPH in a series of online interactive modules. Focuses on information about the academic ethics code and responsible conduct of research at the School. Explores issues of academic integrity such as proper ethical conduct and referencing, and discusses violations such as plagiarism and cheating, relative to case studies that illustrate situations faced by students and faculty in the academic setting. Addresses topics that include responsible conduct of research, authorship, data management, data ownership, guidelines for professional conduct, research fraud or scientific misconduct, federal and institutional guidelines related to research using human and animal subjects and ethical issues involving vulnerable subjects in research.

PH.550.864. Baltimore Community Practicum. 1 - 4 Credits.

Conducts a project involving a defined denominator population at a community-based organization or local health department. Participates in seminar sessions that cover basic methods of outreach to community organizations, attitudes and values about the role of professionals in community-based work, the social contract required of service professionals, and the attitudes required for effective public health practice.

PH.550.865. Public Health Perspectives on Research. 2 Credits.

Introduces the substantive and methodologic bases for public health research, emphasizing the critical roles of the quantitative, qualitative, biologic, social, and behavioral sciences in improvement of public health. Highlights principles of high-quality research, including the value of a population perspective, interdisciplinary cooperation, the importance of new measurement techniques, and the interface between theory and practice. Gives students information about the interactions between the public and the researcher.

PH.550.867. Introduction to MPH Studies.

Introduces MPH students to their educational program. Includes enrichment seminars, required readings and assignments, including the Goals Analysis requirement.

PH.550.870. SS/R: Occupational Medicine Residency-Practicum Year. 1 - 22 Credits.**PH.550.880. SS/R: General Preventive Medicine Residency-MPH. 1 Credit.**

Prepare residents in the theoretical, practical, and clinical knowledge and skills essential to leadership roles in the design, management, and evaluation of population-based approaches to health.

PH.550.890. SS/R: General Preventive Medicine Residency-Residency Year. 1 - 16 Credits.**PH.550.895. MPH Practicum (Non Departmental). 1 - 4 Credits.**

The MPH Practicum is a mentored, hands-on practical public health experience, which involves meaningful participation and interaction with public health professionals.

PH.550.908. Lab for Prob Solving 550.608.**PH.551.826. Summer Internship/Practicums.**

Allows international graduate students required to take in practicums for their degree, to engage in practicum opportunities outside of JHU. Permits OIS to process Curricular Practical Training (CPT) for students in this course.

PH.551.840. P.H. Special Studies and Research. 0.5 - 22 Credits.**PH.551.867. Designing an MPH Capstone Project. 1 Credit.**

Discusses the importance of selecting the appropriate format for addressing different capstone topic. Reviews search strategies and data bases for a literature review. Provides tips for using a citation management software such as RefWorks in order to provide proper attribution to references. Introduces the basic strategies for writing a clear and concise capstone paper. Provides tips for presenting data in tables and graphs. Introduces the basic strategies for giving a good oral presentation. Presents tips for giving and receiving meaningful feedback. Introduces principles for the design of a good poster.

PH.551.895. SOURCE Practicum Special Studies. 1 - 4 Credits.

Special studies for practicum activities with SOURCE and participating Baltimore City community-based organizations.

PH.552.602. The Role of Quantitative Methods in Public Health. 0.5 Credits.

Covers the bases for the role of quantitative methods in public health, including how to formulate scientific questions quantitatively, different types of data, properties characterizing high or poor quality of measurements, the implications of statistical uncertainty, and the difference between association and causation. Uses illustrative case examples including the opioid epidemic and aging.

PH.552.603. The Role of Qualitative Methods and Science in Describing and Assessing a Population's Health. 0.5 Credits.

Acquaints students with a broad overview of the use of qualitative research methods in public health. Explores the types of critical public health questions best addressed through a qualitative approach and introduces conceptual principles that are foundational to qualitative research. Exposes students to key issues in planning and conducting qualitative research, as well as strategies for analyzing qualitative data.

PH.552.604. Causes and Trends in Morbidity and Mortality. 0.5 Credits.

Provides a broad understanding of the top causes of morbidity and mortality globally, in the U.S., and in Baltimore City, as well as the trends in these estimates. Introduces measurement of morbidity and mortality, and threats to the quality of measurements. Addresses the role of population characteristics (age, sex, region, race/ethnicity) in estimates and trends. Discusses case studies of major causes and trends in morbidity and mortality in defined populations.

PH.552.605. The Science of Primary Secondary and Tertiary Prevention in Population Health. 0.5 Credits.

Provides a broad understanding of the different levels of public health prevention: primary, secondary, and tertiary and discusses the impact of each level on prevention in population health. Emphasizes the role of epidemiology in prevention and control; compares and contrasts the descriptive epidemiology, natural history, and pathologic and biologic characteristics as well as factors related to their etiology. Presents the impacts of recent advances in human genomics/genetics, immunology and metabolism on prevention strategies for chronic and acute disease. Introduces basic principles, theories, and methods in the field of prevention science. Identifies public health interventions that operate at multiple ecological levels, including the community, family, and individual. Introduces the role of resilience. Discusses case studies related to the prevention of different physical, mental, behavioral and infectious disease health problems.

PH.552.606. The Critical Importance of Evidence in Advancing Public Health Knowledge. 0.5 Credits.

Emphasizes the need to establish the credibility of the evidence, based on the rigor of the methods used in generating it (e.g., type of studies, rules of causality, the nature of errors) before employing evidence to advance knowledge, practice, or policy. Discusses the bases for debate about recommendations for particular interventions that impact a population's health, how to weigh their benefits and harms, the ethics of scientific conduct, and effective communication in building evidence. Uses illustrative case examples, such as breast and prostate cancer screening, vaccines for measles and cervical cancer, nutritional sodium reductions, and the opioid epidemic.

PH.552.607. Essentials of Environmental Health. 0.5 Credits.

Course Description: Summarizes the public health impact of environmental agents (e.g. chemical, biological, physical) present in air, water, soil, food, and the community. Discusses how these agents cause adverse health effects as well as ways to assess the risk of such effects and apply strategies for preventive interventions. Presents systems that have major impacts on environmental health, as well as applications of the science in the real domestic and international world. Through four modules: Foundations; Exposures in Air, Water and Food; Systems; and Cases, exemplifies effects of specific environmental exposures.

PH.552.608. Biologic, Genetic and Infectious Bases of Human Disease. 0.5 Credits.

Focuses on the basics of cellular and molecular biology, genetics, and infectious agents. Explains concepts that link basic biology to disease and population health. Illustrates application of biologic and genetic principles to population health using case studies.

PH.552.609. Psychological and Behavioral Factors That Affect A Population's Health. 0.5 Credits.

Shows the role of behavior in health, drawing from smoking and other risk behaviors. Examines factors along the socioecological continuum that influence such behavior. Highlights key determinants for achieving behavior change to improve health outcomes, such as feasibility, self-efficacy and social support. Introduces common types of behavior change interventions, such as counseling and social marketing.

PH.552.610. The Social Determinants of Health. 0.5 Credits.

Provides an overview of social, political, and economic influences on health and their role in producing health inequalities within and among populations. Emphasizes key axes of inequality: gender, race/ethnicity, and socioeconomic status. Explains conceptual foundations for social determinants of health and health inequalities. Summarizes evidence linking selected social, political, and economic factors to health and the pathways by which they influence health. Highlights importance of understanding social determinants of health, despite challenges of designing interventions targeting social determinants.

PH.552.611. Globalization and Population Health. 0.5 Credits.

Evaluates in depth the complex relationship between globalization and health. Discusses this relationship across the four main dimensions of globalization (economic, political, cultural and environmental). Examines the existing evidence on the impact of globalization on global burdens of disease. Explores the opportunities of globalization and strategies for mitigating its negative effects.

PH.552.612. Essentials of One Health. 0.5 Credits.

Introduces the principles of One Health, the interface of human health, animal health and environmental health. Examines the methods and tools for the conduct of One Health studies and the design of One Health programs. Uses a systems thinking approach to explore multiple topics including food systems, food and animal policies, One Health governance, and stakeholder engagement.

PH.552.621. Basic Resources Management for Public Health. 1 Credit.

Provides an overview of budgeting and resource management for public health practitioners working in health settings. Discusses the role and functions of governing bodies. Considers the types and categories of performance problems as well as how to determine causes of performance deviations and approaches for remedying them. Explores the tools and resources of budget and resource management.

PH.552.622. Creating, Implementing and Monitoring Budgets for Projects and Programs. 1 Credit.

Addresses strategies for creating budgets for projects and programs. Stresses the essential role of budgets in promoting the health of organizations and resource management. Explores how budgets are used to facilitate project and program management, including assessing whether high-quality outcomes are being achieved on time and within resource constraints or whether changes to the work plan, budget, or available resources are needed.

PH.552.625. Building Collaborations Across Sectors to Improve Population Health. 0.5 Credits.

This course provides an overview of the essential role interprofessional teams in building multi-sector collaborations and partnerships in population health. Following deliberate, evidence-based methods for effective collaboration, the course identifies and discusses several key factors that can only be addressed through cross-sector efforts. These factors include the social determinants of health, complexity, context, and societal resistance. The Collective Impact Model, designed to tackle entrenched, socially complex issues, is introduced as an evidence-based for effective, large scale, sustainable change.

PH.552.626. Systems Thinking: Concepts and Methods. 0.5 Credits.

Provides students with an understanding of how to apply systems thinking in public health. Trains students on the fundamentals of systems thinking theory and offers opportunities to apply key methods and approaches to health policy and health questions. Prepares students to ask relevant research questions and apply systems thinking to describe, understand, and anticipate complex behavior. Examines how systems models can be critically appraised and communicated with others so public health policymakers can exercise a greater degree of wisdom and insight.