PUBLIC HEALTH (PH)

PH 100 New Student Experience in Public Health
1 cr. Undergraduate.
Students new to UWM develop academic and life skills for success, explore campus resources, and reflect on personal development and careers in public health.
Prerequisites: none.
Last Taught: Fall 2020.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 101 Introduction to Public Health
3 cr.
Introduction to history, science and philosophy of Public Health including scientific research, policy development and health education.
Prerequisites: none.
Course Rules: PH 101 and CGS HES 101 are jointly offered; they count as repeats of one another.
General Education Requirements: SS
Last Taught: Summer 2021, Spring 2021, Fall 2020, Summer 2020.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 142 Exploring Global Environmental Health
3 cr. Undergraduate.
Introduction to the sciences underpinning the study and response to infectious, chemical, and physical environmental threats to human health within a global public health framework.
Prerequisites: none.
Last Taught: Spring 2021, Fall 2020, Spring 2020, Fall 2019.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 201 Public Health from Cells to Society I
3 cr. Undergraduate.
Introduces public health as a holistic interdisciplinary field spanning cell to society. Emphasizes active learning about current public health problems from multilevel and lifecourse perspectives.
Prerequisites: Prerequisites: PH 101(P) or PH 142(P); BioSci 102(C).
Last Taught: Fall 2020, Fall 2019.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 202 Public Health from Cells to Society II
3 cr. Undergraduate.
Introduces multilevel societal drivers of health inequities over the lifecourse. Actively explores how social inequality gets under the skin to influence current public health problems.
Prerequisites: PH 201(P); KIN 270(R) or SOCIOL 261(R).
Current Offerings: https://catalog.uwm.edu/course-search/

PH 206 Child and Adolescent Health
3 cr. Undergraduate.
Review evidence-based child and adolescent health promotion in school, community, and clinical settings; Adolescent risk behaviors of special interest.
Prerequisites: none.
Last Taught: Spring 2012.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 297 Study Abroad:
1-12 cr. Undergraduate.
Designed to enroll students in UWM sponsored program before course work level, content, and credits are determined and/or in specially prepared program course work.
Prerequisites: acceptance for Study Abroad Prog.
Course Rules: Retakable w/chg in topic.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 302 Health and Disease: Concepts and Contexts
3 cr. Undergraduate.
Concepts of health and disease across social, historical, political, and cultural contexts, with particular attention to the workings of race, gender, and sexuality.
Prerequisites: jr st & satisfaction of OWC-B.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 303 Climate Change, the Environment and Human Health
3 cr. Undergraduate.
Acquire knowledge about and be able to identify ways in which climate change adversely affects human health globally, nationally and locally.
Prerequisites: soph st; or cons instr.
General Education Requirements: NS
Last Taught: Fall 2020, Fall 2019, Fall 2018, Fall 2017.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 304 Foundations of Epidemiology
3 cr. Undergraduate.
Introduces descriptive and analytic epidemiology, determinants of health and health inequities in populations, and basic application of quantitative epidemiologic methods to public health.
Prerequisites: PH 101(P); KIN 270(C), SOCIOL 261(C), MTHSTAT 215(C), or equivalent; or consent of instructor.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 306 Adolescent Health & Development
3 cr. Undergraduate.
A public health perspective on adolescent development and health/ mental health promotion Readings, assignments and activities focus on drug use, sexuality, obesity, trauma, depression and violence.
Prerequisites: Psych 101(P) or PH 101(P) or cons instr.
General Education Requirements: SS
Current Offerings: https://catalog.uwm.edu/course-search/

PH 319 Introduction to Health Disparities
3 cr. Undergraduate.
An introduction to health inequalities as they pertain to racial and ethnic populations in the U.S. and an overview of key determinants of population health.
Prerequisites: PH 101(P).
Current Offerings: https://catalog.uwm.edu/course-search/

PH 327 Foundations for Action in Public Health
3 cr. Undergraduate.
History, perspectives, and theoretical foundations of taking action and making change in public health and related disciplines.
Prerequisites: sophomore standing; PH 101(P); satisfaction of GER OWC Part A.
Last Taught: Fall 2020, Spring 2020.
Current Offerings: https://catalog.uwm.edu/course-search/
PH 345 Green fish, green worms & more: animal models and their applications
3 cr. Undergraduate.
An introduction to the field of applied public health biology where animal models are being utilized to determine how environmental contaminants influence human health.
**Prerequisites:** none.
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)

PH 346 Environmental Health and Disease
3 cr. Undergraduate.
Investigates how the environment and/or environmental factors impact human health and population health with an emphasis on the developmental origins of disease.
**Prerequisites:** Bio Sci 102(P) & PH 142(P).
**Last Taught:** Spring 2021, Spring 2020.
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)

PH 355 Public Health Research Methods I
3 cr. Undergraduate.
Introduction to public health qualitative and quantitative research methods and considerations for conducting ethical public health research.
**Prerequisites:** KIN 270(P) or MthStat 215(P); HCA 307(P).
**Last Taught:** Fall 2020, Fall 2019.
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)

PH 375 Topics in Public Health:
1-3 cr. Undergraduate.
Topics of current interest in Public Health for undergraduates.
**Prerequisites:** none.
**Course Rules:** May be retaken w/ chg in topic.
**Last Taught:** Spring 2015, Summer 2012, Spring 2011.
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)

PH 408 Comparative Health Systems: A Social Determinants Approach
3 cr. Undergraduate.
Building on a conceptual foundation and diverse examples, introduces the US and international healthcare systems, and their role in improving population health and health equity.
**Prerequisites:** jr st & POL SCI 103(P), 104(P), 175(P), or 210(P).
**Last Taught:** Fall 2020, Fall 2019.
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)

PH 410 True Lies: Consuming and Communicating Quantitative Information
3 cr. Undergraduate.
Develops quantitative critical thinking skills, from elementary statistics to causal inference and data visualization. Examines how data are used in health-related sciences and mass-media reports.
**Prerequisites:** Kin 270(P) or MthStat 215(P).
**Last Taught:** Fall 2020.
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)

PH 427 Strategies for Action in Public Health
3 cr. Undergraduate.
In-depth study of assessment and planning methods, theory application, and interdisciplinary community-engaged approaches and strategies for taking action to promote population health and health equity.
**Prerequisites:** PH 327(P) & satisfaction of OWC-B.
**Last Taught:** Spring 2021, Spring 2020.
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)

PH 428 Program Implementation & Evaluation for a Healthy Society
3 cr. Undergraduate.
Introduces concepts and methods for developing strategies of implementation and evaluation of health programs. Fundamental knowledge and skills for implementing and evaluating health promotion programs.
**Prerequisites:** PH 427(P).
**Last Taught:** Fall 2020.
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)

PH 455 Public Health Research Methods II
3 cr. Undergraduate.
Application of qualitative and quantitative methods, interpretation of findings and communication of results in public health research.
**Prerequisites:** PH 355(P).
**Last Taught:** Spring 2021, Spring 2020.
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)

PH 467 History of Scientific Reasoning in Global Public Health and Epidemiology
3 cr. Undergraduate.
Introduction to the historical development of public health and epidemiology, and how historical and social contexts shape scientific theories of disease distribution and determinants.
**Prerequisites:** HCA 307(P).
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)

PH 478 Public Health Research Using Social Media
3 cr. Undergraduate.
Hands-on research and discussion seminar in which students examine a selected issue tied to social media and public health.
**Prerequisites:** PH 455(P).
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)

PH 600 Public Health Integrative Experience (Service Learning)
3 cr. Undergraduate.
Culmination of public health major. Integrates and applies core public health competencies through an experiential service learning placement in a community organization, and seminar-style discussions.
**Prerequisites:** sr st.; declared PH major; cons instr.
**Last Taught:** Spring 2021, Fall 2020.
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)

PH 699 Independent Study
1-3 cr. Undergraduate.
Independent study on a topic not available as a regular course.
**Prerequisites:** cons instr.
**Last Taught:** Spring 2021, Fall 2020, Fall 2019, Spring 2016.
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)

PH 700 Structures of Inequality and Population Health
3 cr. Graduate.
Foundations of public health, critical social theory, and social justice praxis, which provide essential interdisciplinary tools for analyzing sociostructural processes and advancing social and health equity.
**Prerequisites:** grad st
**Last Taught:** Fall 2020, Fall 2019, Fall 2018, Fall 2017.
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)
PH 701 Public Health Principles and Practice
3 cr. Graduate.
Examination of fundamental principles designed to improve the health of the public, public health theories, domains, and practices.
Last Taught: Fall 2020, Fall 2019, Fall 2018, Fall 2017.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 702 Introduction to Biostatistics
3 cr. Graduate.
Development and application of statistical reasoning and methods in addressing, analyzing and solving problems in public health. Includes lab section with introduction to SAS, including macros and core statistical analysis functions.
Prerequisites: grad st; PH 702(C) or cons instr
Last Taught: Spring 2021, Fall 2020, Spring 2020, Fall 2019.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 703 Environmental Health Sciences
3 cr. Graduate.
Survey of effects environment has on humans, and effects humans have on environment, emphasis on toxicology and infectious disease.
Prerequisites: grad st
Last Taught: Spring 2021, Fall 2020, Spring 2020, Fall 2019.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 704 Principles and Methods of Epidemiology
3 cr. Graduate.
Quantitative study of patterns and determinants of health in human populations applying biomedical and social epidemiology perspectives. Problem-based lab includes surveillance, measurement, study design, and causal inference applications.
Prerequisites: grad st; PH 702(C) or cons instr
Last Taught: Spring 2021, Fall 2020, Fall 2019, Fall 2018.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 705 Principles of Public Health Policy and Administration
3 cr. Graduate.
The role of policy in influencing population health, policies that promote public health, the policymaking process, and the planning and administration of health systems.
Prerequisites: grad st; PH 704(R)
Last Taught: Spring 2021, Fall 2020, Spring 2020, Fall 2019.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 706 Perspectives on Community & Behavioral Health
3 cr. Graduate.
Philosophical underpinnings, conceptual frameworks, and strategies for the application of behavioral and social science concepts to the goals of public health. Prereq: grad st
Last Taught: Spring 2021, Fall 2020, Spring 2020, Fall 2019.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 707 Introduction to Statistical Computing
1 cr. Graduate.
Introduction to statistical methods as implemented in SAS, including macros and core statistical analysis functions
Prerequisites: grad st; PH 702(C) or cons instr
Last Taught: Spring 2015, Fall 2013, Fall 2012, Fall 2011.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 708 Health Systems and Population Health
3 cr. Graduate.
Using fundamental concepts of health systems design, international comparisons, and case studies, this course demonstrates strategies through which health systems could improve health and reduce inequities by addressing social vulnerabilities.
Prerequisites: grad st
Last Taught: Fall 2020, Fall 2019, Spring 2018.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 709 Public Health Informatics
3 cr. Graduate.
Overview of the rapidly emerging and evolving field of public health informatics - active learning and exposure to new and relevant public health informatics methods, applications, and tools.
Prerequisites: grad st
Last Taught: Spring 2016.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 710 Seminar in Biostatistics and Bioinformatics
1 cr. Graduate.
This course provides general approaches and collection of biostatistics and bioinformatics methods and practice used in public health.
Prerequisites: gr st or consent of instructor.
Last Taught: Fall 2019.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 711 Intermediate Biostatistics
3 cr. Graduate.
Introduction to modern multivariable statistical analysis, based on generalized linear models. Topics include linear regression, logistic regression, one-way and two-way ANOVA, longitudinal analysis, missing data, and mixed models.
Prerequisites: grad st; PH 702(P) or cons instr
Current Offerings: https://catalog.uwm.edu/course-search/

PH 712 Probability and Statistical Inference
3 cr. Graduate.
Introductory graduate-level course that provides students with a mathematical treatment and understanding of key concepts in probability and distribution theory and statistical inference, and their applications in public health.
Prerequisites: grad st; Math 231 (P) & 232 (P) or equivalent, or cons instr
Last Taught: Fall 2020, Fall 2019, Fall 2018, Fall 2017.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 713 Analyzing Observational and Experimental Data
3 cr. Graduate.
Analyze data from both experiments and observational studies within a causal inference framework as it applies to public health. Covers randomization, confounding, blocking, ANOVA, counterfactuals, selection bias, and measurement error.
Prerequisites: grad st; PH 704(C), PH 711 (C) or PH 759 (C) or cons instr
Current Offerings: https://catalog.uwm.edu/course-search/
PH 714 Statistical Genetics and Genetic Epidemiology
3 cr. Graduate.
Introduction to statistical methods for the analysis of family and population based genetic data, including methods can be used in linkage analysis, family-based and population-based association studies.
Prerequisites: grad st; PH 702(P) and PH 711(P) or cons instr
Last Taught: Fall 2015.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 715 Applied Categorical Data
3 cr. Graduate.
Data analysis techniques for various kinds of categorical data for public health related examples using SAS.
Prerequisites: grad st; PH 711(P) and PH 712(P) or cons instr
Last Taught: Fall 2020, Fall 2019, Fall 2017, Fall 2015.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 716 Applied Survival Analysis
3 cr. Graduate.
This course covers basic concepts and techniques in the statistical analysis of survival data.
Prerequisites: Grad St; PH711(P) (or PH759(P)) and PH712(P); or consent of instructor.
Last Taught: Spring 2021, Fall 2020, Spring 2019, Spring 2018.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 717 Applied Longitudinal Data Analysis
3 cr. Graduate.
This course will cover data analysis techniques for longitudinal data with focus on application in public health with related examples using SAS.
Prerequisites: PH 711 and PH 712; cons instr.
Last Taught: Fall 2018, Fall 2016, Spring 2016.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 718 Data Management and Visualization in R
3 cr. Graduate.
This course covers basic concepts and techniques for statistical programming with the R computing language.
Prerequisites: PH711; cons instr.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 719 Social Justice in Public Health
3 cr. Graduate.
This course is designed to introduce you to the major social variables (e.g., socioeconomic status, race, poverty, social support, neighborhood environment) that affect public health.
Prerequisites: grad st
Current Offerings: https://catalog.uwm.edu/course-search/

PH 720 Special Topics in Biostatistics:
1-3 cr. Graduate.
Survey of an area in Biostatistics. Specific credits and add'l prereqs announced in Schedule of Classes each time course is offered.
Prerequisites: grad st
Course Rules: Retakable w/chg in topic to 9 cr max.
Last Taught: Spring 2019, Fall 2017, Fall 2016, Fall 2015.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 721 Introduction to Translational Bioinformatics
3 cr. Graduate.
Review bioinformatics knowledge and analytical skills, high-throughput technologies that produce various omic data, along with the methodologies to analyze and interpret different layers of information.
Prerequisites: grad st; PH 711(P) or cons instr
Current Offerings: https://catalog.uwm.edu/course-search/

PH 722 An Introduction to Bayesian Statistics
3 cr. Graduate.
In parallel to classical statistical frequentist approach, Bayesian statistics serves another way to make statistical inference, which not only rely on the sample information collected, but also on external prior knowledge.
Prerequisites: PH 702(P); PH 711(P), PH 712(P); and PH 718(P).
Last Taught: Spring 2020.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 723 Design, Conduct and Analysis of Clinical Trials
3 cr. Graduate.
Introduction to the design, conduct and analysis of phase I-IV clinical trials, with an emphasis on phase III trials and ethical issues in clinical research.
Prerequisites: grad st; PH 711 (P), or cons instr
Current Offerings: https://catalog.uwm.edu/course-search/

PH 724 Theories and Models of Health Behavior
3 cr. Graduate.
Examine theories of health behavior targeted to each level of the social ecological model, including historical and public health context. Assess utility of these theories in various domains.
Prerequisites: grad st
Current Offerings: https://catalog.uwm.edu/course-search/

PH 725 Community Health Assessment
3 cr. Graduate.
Introduction to the concepts and techniques of community health assessment; conducting and critically analyzing community assessments.
Prerequisites: grad st; PH 701(P) or cons instr
Current Offerings: https://catalog.uwm.edu/course-search/

PH 726 Program Planning & Implementation in Public Health
3 cr. Graduate.
Systematic approach to planning and implementing public health programs, examining program monitoring, methods of impact assessment, and measuring efficiency.
Prerequisites: grad st
Last Taught: Fall 2020, Fall 2019, Fall 2018, Fall 2017.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 727 Program Evaluation in Public Health
3 cr. Graduate.
Students design and present research and evaluation plans, receive guidance on developing conceptual frameworks and hypotheses, collecting and analyzing data, and developing program evaluation plans.
Prerequisites: grad st; PH 702(P) or cons inst
Current Offerings: https://catalog.uwm.edu/course-search/
PH 729 Survey Research Methods in Public Health
3 cr. Graduate.
The application of survey methods with emphases on sampling, survey design and planning, and data collection procedures.
Prerequisites: grad st; PH 702(P) or cons inst
Last Taught: Fall 2020, Fall 2019, Fall 2018, Fall 2017.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 730 Overview of Children with Special Health Care Needs
3 cr. Graduate.
Overview of the complex issues affecting children with special health care needs and their families, including access/use of health programs and other services, policies, interventions, financing, and coordination/transition of care.
Prerequisites: graduate standing and PH 820(P) or consent of instructor.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 732 Youth Mental Health Practice for Non Mental Health Professionals
3 cr. Graduate.
Examination of mental health principles and practices from a public health professional's perspective, including ethical guidelines, necessary interpersonal skills, and mental health screenings and referrals to services.
Prerequisites: grad st
Last Taught: Summer 2012.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 733 Overview of Qualitative Methods for Public Health
1 cr. Graduate.
Introduction to qualitative methods for public health.
Prerequisites: graduate standing or consent of instructor.
Course Rules: Counts as repeat of PH 740 with similar topic.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 740 Special Topics in Public Health:
1-3 cr. Graduate.
Topics of current interest in public health.
Prerequisites: grad st.
Course Rules: May be repeated w/chg in topic to 10 cr max.
Last Taught: Spring 2021, Fall 2020, Spring 2020, Fall 2016.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 741 Environmental Public Health Microbiology
3 cr. Graduate.
Environmental health microbiology is the study of microbial processes in water, land, and food that affect human health.
Prerequisites: grad st; completed minimum of one undergraduate microbiology course.
Last Taught: Spring 2021, Fall 2019, Fall 2018, Fall 2017.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 743 Environmental Risk Assessment
3 cr. Graduate.
Risk assessment practices from an environmental health perspective, complexities and challenges of regulation, management, and mitigation of risks for both human and ecosystem health.
Prerequisites: grad st; PH 702(P) & PH 703 (P) or cons instr
Last Taught: Fall 2020, Fall 2019, Fall 2018, Fall 2017.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 744 Environmental Toxicology
3 cr. Graduate.
This course will cover the occurrence, fate and transport, and toxic action of natural and synthetic chemicals encountered in the air, water, and soil.
Prerequisites: grad st; CHEM 100 (or equivalent) with B or better, and BIO SCI 150 (or equivalent) with B or better, or cons instr
Current Offerings: https://catalog.uwm.edu/course-search/

PH 745 Developmental Toxicology
3 cr. Graduate.
An introduction to the field of developmental toxicology and how environmental contaminants influence vertebrate development, including humans.
Prerequisites: grad st.
Last Taught: Fall 2020, Fall 2019, Fall 2018, Fall 2017.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 750 Seminar in Environmental Health Sciences
1-3 cr. Graduate.
Survey of an area in environmental health. Specific credits and add'l prereqs announced in Schedule of Classes each time course offered. Retakable w/chg in topic to 9 cr max.
Last Taught: Spring 2021, Fall 2020, Spring 2020, Fall 2019.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 752 Public Health and Mental Health
3 cr. Graduate.
Understanding mental health and mental illness from a public health perspective; designed for an interdisciplinary audience of students, researchers and practitioners.
Prerequisites: grad st.
Last Taught: Spring 2020, Fall 2018, Fall 2017, Spring 2015.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 754 Intro to Regression for Understanding the SDOH
3 cr. Graduate.
Using STATA on real data to build regression models, perform diagnostics, and interpret results. Utilize social theory to put results into context.
Prerequisites: grad st; PH 700(P), PH 702(P), and PH 704(P); or cons instr
Current Offerings: https://catalog.uwm.edu/course-search/

PH 758 Social Epidemiology
3 cr. Graduate.
Foundations of social epidemiology, including key concepts, theoretical frameworks, and methods for studying social and structural determinants of population health and health inequity.
Prerequisites: grad st; PH 700(P), PH 701(P), and PH 702(P); or cons instr
Last Taught: Fall 2020, Fall 2019, Fall 2018, Fall 2017.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 759 Epidemiology Field Methods
3 cr. Graduate.
Prepares students to conduct epidemiologic field studies. Introduction of reviewing literature, designing questionnaires, developing surveillance systems, conducting emergency outbreak investigations, applying for IRB approval, and public relations.
Prerequisites: grad st; PH 700(P), 702(P), and PH 704 (P) or cons instr
Current Offerings: https://catalog.uwm.edu/course-search/
PH 762 Environmental Epidemiology
3 cr. Graduate.
Expands upon basic epidemiological principles to tackle current problems in studies of health impacts of contaminants in air, water, food supply, consumer products, and indoor spaces, emphasizing a cross-disciplinary approach.
Prerequisites: grad st; PH 703(C) and PH 704(P) or cons instr.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 763 Epidemiology for Equity
3 cr. Graduate.
Students will integrate epidemiology methods with the principles, methods, and skills of participatory action research aimed at structural change to promote social and/or environmental justice and health equity.
Prerequisites: grad st; PH 700(P), 702(P), PH 704(P), and PH 790 (C); or consent of instructor
Current Offerings: https://catalog.uwm.edu/course-search/

PH 768 Cancer Epidemiology
3 cr. Graduate.
The course will provide an introduction to cancer epidemiology and prevention evaluating methods to study cancer etiology and survival with a particular focus on understanding cancer disparities.
Prerequisites: grad st; PH 702(P) and PH 704(P); or cons instr grad st; PH 702(P) and PH 704(P); or cons instr.
Last Taught: Fall 2020, Fall 2019, Fall 2018, Fall 2017.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 769 Critical Perspectives on Nutritional Epidemiology and the Food System
3 cr. Graduate.
This course offers a synthesis of nutritional epidemiological methods and food systems perspectives to build students critical understanding of diets, nutrition, and their public health implications.
Prerequisites: grad st; PH702(P), PH704(P), and PH705(P); or consent of instructor
Current Offerings: https://catalog.uwm.edu/course-search/

PH 774 Violence and Health
3 cr. Graduate.
This course examines relationships between violence and health from an interdisciplinary perspective in order to develop analytical, practical, and self-reflexive skills for intervening in violence and promoting health equity.
Prerequisites: grad st
Last Taught: Spring 2017.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 775 Mechanisms of Infectious Disease
2 cr. Graduate.
Molecular and cellular means by which microorganisms facilitate infection, withstand or evade immune response, induce damage to host, and ensure transmission to human populations.
Prerequisites: grad st; Lc & la course in medical microbiology
Course Rules: C L Sci 775 & PH 775 are jointly offered; they count as repeats of one another.
Last Taught: Spring 2016, Spring 2014.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 776 Qualitative Approaches in Public Health Policy and Administration
3 cr. Graduate.
Introduces students to foundational approaches to qualitative research for use in public health policy & administration. It provides opportunities to practice foundational data collection, research analysis, reflexivity, & research design skills.
Prerequisites: grad st
Current Offerings: https://catalog.uwm.edu/course-search/

PH 777 Quantitative Research Methods for PH Policy & Administration
3 cr. Graduate.
Introduces quantitative methods commonly used in public health policy and administration decision-making, skills to analyze quantitative research and to apply knowledge generated from research to the public health policy and administration context.
Prerequisites: graduate standing; PH 702(P), completion or concurrent enrollment in PH 704, or consent of instructor.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 779 Public Health Policymaking and Policy Analysis
3 cr. Graduate.
Introduces students to key frameworks for public health policymaking and policy analysis. Students apply concepts to a real world public health problem of their choice.
Prerequisites: grad st; PH705(P) or MSP760(P) or cons instr.
Last Taught: Fall 2020, Fall 2019, Fall 2018, Fall 2017.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 780 Seminar in Public Health Policy and Administration
1-3 cr. Graduate.
Survey of an area in Public Health Policy and Administration. Specific credits and add'l prereqs announced in Schedule of Classes each time course offered.
Prerequisites: grad st
Course Rules: Retakable w/chg in topic to 9 cr max.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 781 Public Health Administration
3 cr. Graduate.
This course introduces basic concepts, best-practice leadership, and management principles with the emphasis on organizational behavior in public health settings.
Prerequisites: grad st.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 784 Social and Economic Policy as Health Policy
3 cr. Graduate.
This course examines how social and economic policies, including education, income re-distribution, and housing shape population health. A broad overview of the social determinants of health is introduced/reviewed and current knowledge of the impact.
Prerequisites: grad st; a course covering multiple regression, including PH 711(P), PH 759(P), or cons inst.
Last Taught: Fall 2017.
Current Offerings: https://catalog.uwm.edu/course-search/
PH 785 Principles of Public Health Economics  
3 cr. Graduate.  
The course introduces the application of microeconomic theories and models to explain major topics and trends in public health and health care settings.  
Prerequisites: grad st. or cons instr  
Last Taught: Fall 2020, Fall 2019, Fall 2018, Fall 2017.  
Current Offerings: https://catalog.uwm.edu/course-search/  

PH 790 Field Experience in Public Health  
1-6 cr. Graduate.  
Apply skills learned in the classroom to real world public health problems in a mentored field placement, engaging both faculty and site preceptors.  
Prerequisites: graduate standing and completion of 18 credits, including PH 702(P) and PH 704(P), 1-2 MPH core courses, and 2-3 track courses, based on track requirements; or consent of instructor.  
Course Rules: Repeatable to 6 cr max.  
Last Taught: Summer 2021, Summer 2020, Fall 2019, Fall 2018, Fall 2017.  
Current Offerings: https://catalog.uwm.edu/course-search/  

PH 791 Leadership in Public Health  
1 cr. Graduate.  
Complements the Field Experience. Presentations on leadership, negotiation, and inter-professional teamwork, participation in case workshops, and written papers foster the integration of core concepts, critical thinking and reflection skills.  
Prerequisites: graduate standing; PH 790(P) or PH 790(C); or consent of instructor.  
Last Taught: Summer 2021.  
Current Offerings: https://catalog.uwm.edu/course-search/  

PH 800 Capstone in Public Health  
2 cr. Graduate.  
Application of acquired public health knowledge, experience and competencies in developing a public health project that demonstrates readiness for professional practice. Satisfactory/Unsatisfactory only.  
Prerequisites: grad st; PH 790(P) or cons instr.  
Last Taught: Spring 2021, Fall 2020, Spring 2020, Fall 2019.  
Current Offerings: https://catalog.uwm.edu/course-search/  

PH 801 Seminar in Public Health Research  
3 cr. Graduate.  
Immersion in interdisciplinary collaborative approaches to public health research.  
Prerequisites: grad st; 1 course in stats/biostats and 1 course in research methods; or cons instr.  
Last Taught: Fall 2020, Fall 2019, Fall 2018, Fall 2017.  
Current Offerings: https://catalog.uwm.edu/course-search/  

PH 804 Advanced Epidemiology  
3 cr. Graduate.  
Advanced training in epidemiological concepts, principles and methods in the context of population health and health equity.  
Prerequisites: grad st; PH758, PH823, or cons instr  
Current Offerings: https://catalog.uwm.edu/course-search/  

PH 808 Writing a Federal Grant in the Public Health Sciences  
3 cr. Graduate.  
This course is designed to provide students a hands-on experience with all aspects of preparation of a hypothesis driven grant application to a federal agency such as the NIH or NSF.  
Prerequisites: grad st. admis to a PhD program.  
Current Offerings: https://catalog.uwm.edu/course-search/  

PH 811 Causal Inference  
3 cr. Graduate.  
This course will cover a variety of approaches to define and estimate causal effects, as well as the sensitivity analysis for both clinical trial and observational studies.  
Prerequisites: grad st; Mthstat 762(C) or PH 911 (C) or cons instr  
Last Taught: Fall 2018.  
Current Offerings: https://catalog.uwm.edu/course-search/  

PH 812 Statistical Learning & Data Mining  
3 cr. Graduate.  
Analysis of data using modern data mining technique.  
Prerequisites: grad st; MathStat 761 and PH 718; or consent of instructor  
Last Taught: Fall 2018.  
Current Offerings: https://catalog.uwm.edu/course-search/  

PH 813 Practice of Biostatistical Consulting  
3 cr. Graduate.  
This course teaches the elements of statistical consulting, appropriate statistical analysis approaches, and how to interpret findings and effectively communicate with clients.  
Prerequisites: grad st; PH 711, PH 713, & PH 718; or cons instr.  
Last Taught: Fall 2019, Fall 2017.  
Current Offerings: https://catalog.uwm.edu/course-search/  

PH 818 Statistical Computing  
3 cr. Graduate.  
This course will cover the theory and application of common algorithms used in statistical computing.  
Prerequisites: grad st; PH 711(P), MthStat 762(P), and PH 718(P) or cons inst.  
Last Taught: Fall 2017.  
Current Offerings: https://catalog.uwm.edu/course-search/  

PH 819 Social and Environmental Justice in Public Health  
3 cr. Graduate.  
Social and environmental justice perspective on public health problems and concerns.  
Prerequisites: grad st  
Course Rules: Jointly offered w/ & counts as a repeat of Soc Wrk 819.  
Last Taught: Fall 2020, Spring 2014, Spring 2013, Fall 2010.  
Current Offerings: https://catalog.uwm.edu/course-search/  

PH 820 Maternal and Child Health Foundations, Policy and Practice  
3 cr. Graduate.  
The foundations of MCH, historical context, financing, challenges, and opportunities in advancing MCH at state, national and international level including the integration of men.  
Prerequisites: grad st; PH 702(P), 704(P) or cons instr  
Last Taught: Fall 2019, Fall 2018, Fall 2017, Fall 2015.  
Current Offerings: https://catalog.uwm.edu/course-search/
PH 821 Advanced Survey of Environmental Health
3 cr. Graduate.
The role of environmental factors in determining human health, and human processes that degrade this interaction.
**Prerequisites:** graduate standing.
**Course Rules:** Previously EOH 821.
**Last Taught:** Fall 2020, Fall 2019, Spring 2019, Fall 2013.
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)

PH 822 Molecular & Cellular Basis of Environmental Disease
3 cr. Graduate.
Examines how environmental agents cause changes in gene expression, structure, and activity leading to human disease; and resulting alterations in normal cellular processes and physiological consequences.
**Prerequisites:** graduate standing.
**Course Rules:** Previously EOH 822. Freshtr 822 & PH 822 are jointly-offered; they count as repeats of one another.
**Last Taught:** Spring 2014, Spring 2012, Spring 2011.
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)

PH 823 Applied Analysis of Binary Outcomes in Public Health Research
3 cr. Graduate.
Apply principles of epidemiology, statistics, and study design in analyzing a public health dataset of choice, covering confounding, modification, bias, missing data, and interpretation in light of limitations.
**Prerequisites:** PH702 (P), PH 704(P), and doctoral standing; or consent of instructor.
**Last Taught:** Fall 2019, Fall 2017.
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)

PH 825 Social and Behavioral Science in Public Health
3 cr. Graduate.
Overview of the contribution and use of social and behavioral sciences approaches in public health research, policy, planning/evaluation, practice, and interventions.
**Prerequisites:** grad st; PH700(P), and PH 758(P) or PH 859(P), or cons instr.
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)

PH 826 Principles of Community Intervention Research
3 cr. Graduate.
Seminar covering classics in community-based public health research and the development of conceptual and methodological skills in community engagement.
**Prerequisites:** grad st.
**Course Rules:** Counts a repeat of PH 740 with similar topic.
**Last Taught:** Fall 2013, Fall 2012.
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)

PH 827 Research Design in Community and Behavioral Health Promotion
3 cr. Graduate.
Examination of experimental, quasi-experimental, and nonexperimental study designs, focus groups, and coding with qualitative software.
**Prerequisites:** grad st; admis to doctoral prog. PH 801(P) & 702(P) or cons instr.
**Last Taught:** Spring 2021, Spring 2019, Spring 2017, Spring 2015.
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)

PH 830 Leadership and Advocacy in Maternal and Child Health
1 cr. Graduate.
Overview of leadership, negotiation, and advocacy theory, skills, and styles in maternal and child health (MCH) and public health and their applications in policies, practice, and interventions to promote health equity.
**Prerequisites:** graduate standing enrolled in the MCH certificate program and PH 820(P); or consent of instructor.
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)

PH 831 Community Engagement and Participatory Research Approaches in Public Health
3 cr. Graduate.
Effective approaches to engaging communities in health interventions and addressing health disparities.
**Prerequisites:** grad st.
**Last Taught:** Spring 2021, Spring 2020, Spring 2019, Spring 2018.
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)

PH 859 Racial/Ethnic Health Disparities in the United States
3 cr. Graduate.
The course will analyze studies of racial/ethnic health disparities, with a focus to include multi-level and temporal perspectives to better understand the social context in which the determinants of racial/ethnic health are embedded.
**Prerequisites:** grad st; a course covering multiple regression, including PH 711(P), PH 759(P), or cons inst.
**Course Rules:** Counts as repeat of PH 740 w/similar topic.
**Last Taught:** Spring 2020, Spring 2019, Spring 2018, Spring 2017.
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)

PH 864 Research Ethics in Epidemiology and Public Health
3 cr. Graduate.
Training in research ethics and ethical analysis in the context of public health and epidemiology research. Covers all topics outlined in the NIH's Responsible Conduct of Research Training.
**Prerequisites:** grad st; PH 801(P), PH 704(P), or consent of instructor.
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)

PH 865 Critical Methodologies for Health Equity Research
3 cr. Graduate.
Analyzes interdisciplinary critical methodologies for researching health inequities across diverse axes of power and considers how to integrate these methodologies into epidemiologic and public health research to advance health equity.
**Prerequisites:** grad st; PH 700(P), and PH 758(P) or PH 859(P), or cons instr
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)

PH 868 Epidemiologic Links Between Infectious and Chronic Disease
3 cr. Graduate.
Discussion of social patterning of infection, epidemiologic and physiologic links between infections and chronic disease, and methodological considerations in the evaluation of such associations.
**Prerequisites:** grad st; PH702(P), PH704(P), and PH759(P) or PH711(P); or consent of instructor
**Last Taught:** Spring 2019, Spring 2018.
**Current Offerings:** [https://catalog.uwm.edu/course-search/](https://catalog.uwm.edu/course-search/)
PH 870 Epidemiology in Health Policy and Advocacy
3 cr. Graduate.
Using epidemiologic evidence to inform public health policy, through engagement with the policy process, communication with policymakers, and evidence-based appraisal of policy alternatives and advocacy for sound policy.
Prerequisites: grad st; PH 779(P), PH804; or cons instr
Current Offerings: https://catalog.uwm.edu/course-search/

PH 895 Research and Thesis for MS in Biostatistics
3 cr. Graduate.
Research and writing of the master’s thesis under the supervision of the major professor.
Prerequisites: grad st and cons instr.
Course Rules: Repeatable to 6 cr max.
Last Taught: Fall 2020, Spring 2020.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 904 Survey of Analytic Methods for Epidemiology
3 cr. Graduate.
Survey of advanced analytic approaches to the conduct of epidemiologic research in the pursuit of causal inference.
Prerequisites: grad st; PH804 or permission of instructor.
Last Taught: Fall 2019, Fall 2017.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 911 Generalized Linear Models
3 cr. Graduate.
This course will cover theory of advanced biostatistics models with focus on generalized linear models and will also cover generalized estimating equation, generalized linear mixed models. We will emphasize implementation in R.
Prerequisites: grad st; PH 711(P), MthStat 762(P), and PH 718(P) or cons instr.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 919 Core Seminar in Community and Behavioral Health Promotion
1-3 cr. Graduate.
These seminars are intended as professional development to prepare students for successful careers in the area of Community and Health Behavior Promotion.
Prerequisites: Grad St
Current Offerings: https://catalog.uwm.edu/course-search/

PH 960 Core Doctoral Seminar in Epidemiology
3 cr. Graduate.
This advanced doctoral seminar discusses practical aspects of an epidemiology career, from developing a research question and study, to managing a grant, writing results and reporting results to the press.
Prerequisites: grad st; PH 758 (P), PH 823 (P), PH 779 (P) and PH 801(P), or cons instr
Last Taught: Spring 2018.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 990 Research and Dissertation
1-8 cr. Graduate.
Original research in any public health discipline
Prerequisites: grad st.
Last Taught: Summer 2021, Spring 2021, Fall 2020, Summer 2020.
Current Offerings: https://catalog.uwm.edu/course-search/

PH 999 Independent Study
1-3 cr. Graduate.
Independent study on a topic not available as a regular course, directed by a member of the graduate faculty.
Prerequisites: grad st; cons instr.
Last Taught: Spring 2021, Fall 2020, Spring 2020, Fall 2019.
Current Offerings: https://catalog.uwm.edu/course-search/