

PUBLIC HEALTH (PUBH)

PUBH 510 - Intro to Epidemiology. 3 Credits.

Offered spring. Open to PUBH majors only. Principles and methods of epidemiologic investigation, descriptive and analytic epidemiology techniques, disease frequency, risk determination, study designs, causality, and validity. Level: Graduate

PUBH 511 - History & Theory Epidemiology. 3 Credits.

Offered autumn. Open to PUBH majors only. This graduate course covers the basic science of public health. Major schools of epidemiology from the Greek, Italian and English traditions will be compared and contrasted. Basic concepts and terminology will be introduced and major pandemics used to illustrate the evolution of the field. Level: Graduate

PUBH 515 - Public Health Genetics. 3 Credits.

Offered autumn. Open to PUBH majors only. Basic principles of genetics and genomics, application to public health practices and research. Includes issues in public health genetics such as informed consent, screening for genetic susceptibility, and ethical, legal and social implications. Level: Graduate

PUBH 520 - Fundamentals of Biostatistics. 3 Credits.

Offered autumn. Open to PUBH majors only. This course is designed for graduate students and practitioners in public health, biomedical sciences, and related fields. The course introduces basic vocabulary, concepts, and methods of biostatistics. The goal is to provide an introduction to how biostatistics works. Topics will include descriptive statistics, probability, random variables, probability distributions, statistical inference, chi-square analysis, linear regression, and correlation. Level: Graduate

PUBH 525 - Multi/Native American Pub Hlth. 3 Credits.

Offered Autumn. Open to PUBH majors only. This course is designed to provide general overview of multicultural issues within the United States and specifically within Montana. The course will provide overview information about health disparities within the nation and how these disparities disproportionately impact ethnic minority populations. Montana's largest minority population is native American tribal communities. As a result, much of the course will incorporate advanced knowledge and topics relating to regional health disparities facing Native American communities. Level: Graduate

PUBH 530 - Pub Hlth Admin and Mangmnt. 3 Credits.

Offered autumn. Open to PUBH majors only. Overview of public health and health care systems; organizational structures, functions, authorities, policies and procedures; programmatic budgeting, operations, and prioritizations; program performance reporting and improvement; grants and contracts; informatics; human relations and negotiation; management and leadership; and business planning. Level: Graduate

PUBH 531 - Leadership in Public Health. 3 Credits.

Offered spring. Open to PUBH majors only. Prereq., PUBH 530 or consent of instr. This course deepens the student's knowledge and understanding of the role of public health leaders in the community whether in forming partnerships between public health agencies or with private entities. This course begins by building an understanding of the principles of leadership, explores the applications of leadership to public health, develops the relationship between leadership skills and competencies, studies the role of leadership in evaluation and research and concludes with a look at public health now versus how it could be in the future. Level: Graduate

PUBH 535 - Health Policy. 3 Credits.

Offered autumn and spring. Open to PUBH majors only. The evolution and intersection of international, federal, state, and local public health policy. Level: Graduate

PUBH 540 - Social & Behav Sci in Pub Hlth. 3 Credits.

Offered autumn. Open to PUBH majors only. Behavioral and social factors relevant to the identification and solution of public health problems, principles of health behavior change, applications, and assessment of interventions. Level: Graduate

PUBH 545 - Issues in Maternal and Child Health. 3 Credits.

This course provides an overview of maternal and child health problems, programs, and policies. The course examines the social determinants of health and development of women, infants, children and adolescents using the life-course perspective. Students will become familiar with the epidemiology of maternal and childhood diseases and assess the resources and interventions used to combat them. 16 maximum enrollment. Offered online only. Level: Graduate

PUBH 548 - Issues in Mental & Child Health. 3 Credits.

Offered Summer. Prereq., Public Health majors. This course provides an overview of maternal and child health problems, programs, and policies. Using the life-course perspective, this course examines the social determinants of health and development of women, infants, children and adolescents. Students will become familiar with the epidemiology of maternal and childhood diseases and assess the resources and interventions used to combat them. Level: Graduate

PUBH 550 - Progm Eval & Res Meth. 3 Credits.

Offered every odd summer. Open to PUBH majors only. Prereq., PUBH 510 or equiv. and consent of instr. Covers purpose statements, standards, study designs, sampling, measurement, methods for data collection and analysis, interpretation, and report preparation. Models of evaluation described, and similarities and differences between research and evaluation methods explored. Level: Graduate

PUBH 560 - Environmental & Rural Health. 3 Credits.

Offered spring. Open to PUBH majors only. Relationship of people to their physical environment, how this relationship impacts health, and efforts to minimize negative health effects. Level: Graduate

PUBH 570 - Ethical Issues in Public Hlth. 3 Credits.

Offered summer. Open to PUBH majors only. Focus on the values and moral issues that underlie U.S. public health policies. Course examines ethical decision making in areas such as policy development, research, environmental health, occupational health, resource allocation, and genetics. Level: Graduate

PUBH 580 - Rural Health Iss Global Contxt. 3 Credits.

Offered summer. Open to PUBH majors only. Focus on rural concerns and global influences on public health. Covers trends in global health, global health policies, players, priorities, human rights, health equity, and mobile and vulnerable populations. Students will be introduced to health research methods and design, which will be used to analyze rural and global health issues. Emphasize the science and art of epidemiological strategies to answer specific health questions. Level: Graduate

PUBH 590 - Research. 3 Credits.

(R-6) Offered autumn and spring. Open to PUBH majors only. Prereq., admission to the M.P.H. program and consent of instructor. With the guidance of their faculty advisor, students will develop a written proposal specific to the goals of their research project, and carry out the project. Level: Graduate

PUBH 591 - Special Topics/Experimental. 3 Credits.

(R-12) Offered intermittently. Open to PUBH majors only. Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics. Previous topics have included Global Health and Epidemiology of Infectious Disease. Level: Graduate

PUBH 592 - Independent Study. 1-6 Credits.

(R-6) Offered autumn and spring. Open to PUBH majors only. Prereq., admission to the M.P.H., program and consent of instructor. Supervised readings, research, or public health practice. Level: Graduate

PUBH 594 - Professional Paper. 3 Credits.

Offered autumn and spring. Open to PUBH majors only. Prereq., consent of instructor. Students will write and submit an original research paper to a peer-reviewed public health or medical journal. Students may also fulfill the professional paper requirement by presenting a conference paper or conference poster to a local, regional, or national meeting. Offered credit/no credit only. Level: Graduate

PUBH 595 - Practicum. 1-12 Credits.

(R-12) Offered autumn and spring. Open to PUBH majors only. Prereq., consent of instructor. Semester long, supervised graduate practicum in a health science setting, followed by an oral defense. Offered credit/no credit only. Level: Graduate

PUBH 599 - Professional Portfolio. 3 Credits.

Offered autumn and spring. Open to PUBH majors only. Prereq., consent of instructor. Students will write and submit an original research paper to a peer-reviewed public health or medical journal. Students may also fulfill the professional paper requirement by presenting a conference paper or conference poster to a local, regional, or national meeting. Offered credit/no credit only. Level: Graduate

PUBH 600 - Research Rotations in Public Health. 3 Credits.

Offered autumn and spring. Prereq., open to PUBH majors only. This course will provide students with experience related to different types of public health research projects being conducted not only within the School of Public and Community Health Sciences, but throughout the University of Montana. Level: Graduate

PUBH 612 - Neuroepidemiology. 3 Credits.

Offered every even spring. Prereq., PUBH 510 or equiv. Students will learn about special considerations researchers incorporate into studying neurological diseases. Course materials will include a presentation of the pathophysiology, clinical aspects and descriptive epidemiology of a variety of neurologic diseases. Particular emphasis will be placed on the methodologic challenges and strategies associated with the study of these diseases. Level: Graduate

PUBH 613 - Spatial Epidemiology in Geographic Information Systems (GIS). 3 Credits.

Offered every odd spring. Prereq., PUBH 510 or equiv. Spatial epidemiology is the study of the spatial distribution of disease that encompasses both the description and analysis of geographic variations in disease with respect to any number of risk factors. Spatial Epidemiology in Geographic Information Systems (GIS) is a unique course designed for teaching GIS techniques to students interested in public health, epidemiology, and infectious disease. It imbeds learning GIS software in the context of human health scenarios including wildlife (zoonotic) hosts and arthropod vectors. Students will gain basic skills in analyzing datasets and performing spatial and neighborhood analyses on data. Level: Graduate

PUBH 614 - Environmental and occupational epidemiology. 3 Credits.

Offered every odd spring. Prereq., PUBH 510 or equiv. Through readings, case studies, and class discussions, students will gain the ability to critically evaluate published research in environmental and occupational epidemiology that will provide the background for students to design and conduct their own research. A particular emphasis will be on published research relevant to rural communities to illustrate concepts; however, we also will draw from examples from around the world relating to a wide variety of exposures. Level: Graduate

PUBH 620 - Advanced Quantitative Methods in Public Health I. 3 Credits.

Offered autumn. Prereq., PUBH 510 and PUBH 520 or equiv. Through lectures and collaborative problem sets, students will gain the expertise to design and conduct their own research. The emphasis will be on concepts related to basic and advanced epidemiologic methods and on how these concepts influence study design choices. We will utilize R and STATA statistical software throughout the course to illustrate concepts using simple datasets. Level: Graduate

PUBH 621 - Adv Quant Methods II. 3 Credits.

Offered spring. Prereq., PUBH 620. This is the second in the Advanced Quantitative Methods series in public health. This semester will focus on practical data analysis and the presentation and translation of findings in both manuscript and oral form. We will analyze a complex, longitudinal dataset to illustrate the concepts learned in the first semester. The course will culminate in the analysis of a new longitudinal dataset and the presentation of your results. Level: Graduate

PUBH 640 - Qualitative Research Methods in Public Health. 3 Credits.

Offered every odd spring. Prereq., PUBH 540 or equiv. The course provides an overview of qualitative research methods commonly used in public health research. Students will develop expertise in designing and conducting: focus groups, interviews, conversation analysis, and analyses of digital data sources. The major deliverables in this class include developing a presentation on one of the qualitative research approaches, designing and implementing a qualitative research project, and writing a manuscript that summarizes the qualitative research project. Level: Graduate

PUBH 690 - Research. 1-9 Credits.

(R-9) With the guidance of their faculty advisor, students will develop a written proposal specific to the goals of their research project, and carry out the project.

PUBH 691 - Special Topics. 1-6 Credits.

Students will learn about special considerations researchers incorporate into studying neurological diseases. Course materials will include a presentation of the pathophysiology, clinical aspects and descriptive epidemiology of a variety of neurologic diseases. Particular emphasis will be placed on the methodologic challenges and strategies associated with the study of these diseases.

PUBH 692 - Independent Study. 1-6 Credits.

Supervised readings, research, or public health practice.

PUBH 694 - Seminar. 1-3 Credits.

(R-9) Students discuss experiences with goal of integrating theory and practice.

PUBH 699 - Dissertation. 1-9 Credits.

R-50. Offered every semester. The dissertation is an original contribution to knowledge of such substance and literary quality as to warrant publication. A dissertation research proposal that is approved by the student's PhD Advisory Committee must be completed before registering for Dissertation Research credit. Level: Graduate