Public Health (PUBH)

health.uconn.edu/community-medicine

5201. Essentials of Social Inequality and Health Disparities

Three credits.

Introduction to (a) the extent of health disparities across the US population, (b) how social inequality contributes to health disparities, and (c) why attention to social inequality is essential to the effective practice of clinical medicine and dental medicine. Examination of how society's social, economic, political and cultural institutions are structured and why they perpetuate the unequal distribution of opportunities that systematically limit the life chances and experiences of individuals. A range of social determinants (race/racism, poverty, income inequality, education, environmental conditions, social capital, social cohesion, social mobility, safety/security, criminal justice system) are considered that may influence health, either directly or as pathways for other determinants. Addresses the function of public health assessment, provides students with a conceptual basis for the complementary course, PUBH 5202.

5202. Eliminating Social Inequality and Health Disparities

Three credits.

Examination of the evidence for structural, community, and individual-level interventions to reduce the impact of inequity on health and health care utilization. Identification and implementation of multi-level interventions that may reduce inequities by altering the social, economic, and other structural aspects of the environment. It will also address challenges of implementation and ways to reduce potential barriers. The course builds on the conceptual basis of PUBH 5201.

5401. Principles of Epidemiology

Three credits.

Introduction to epidemiological concepts and methods as applied to public health research, community diagnosis, prevention, health planning and evaluation studies. Intensive use of exercises in descriptive and analytic epidemiology based on current investigations.

5402. Introduction to Biostatistics

Three credits.

Introductory presentation of the fundamentals of biostatistical theory and application, aimed at developing competence in the use of statistics, probability distributions, hypothesis testing, inference and estimation as applied to the most commonly used techniques in parametric and nonparametric statistical methods. Critical appraisal of research reported in journal articles serves as an application of learned techniques.

5403. Health Administration

Three credits.

Examination of past, present, and proposed approaches to the organization and management of health care services. Emphasis is on the role and functioning of the manager and the evolution of health care policy and trends as they affect managerial roles.

5404. Environmental Health

Three credits.

Explores the policy, political and public health implications of such issues as air pollution, drinking water, exposure to hazardous chemicals, indoor air pollution, food protection, lead poisoning, housing, international issues, etc. Provides the student with some basic technical information and familiarity with terms for a better understanding of policy and political decisions and health effects of environmental exposures.

5405. Social and Behavioral Foundations of Public Health

Three credits.

Introductory survey emphasizing basic social science concepts in the analysis of public health including orientations toward health, disease and health care, the origins and distribution of health care resources, and the role of social movements and research in improving public health.

5406. Law and Public Health

Three credits.

Introduction to the American legal system as it relates to health care and public health. Sessions present important applications of law to health including the powers of state governments, public health at the federal level, hospital, physician and HMO liability, emergency care and medical research, mental health law, reproductive health and the right to privacy, the right to refuse treatment and end of life issues, privacy and confidentiality in health care, infectious disease law and disability discrimination, and public health policy and advocacy.

5407. Practicum in Public Health

Variable (1-3) credits. Students taking this course will be assigned a final grade of S (satisfactory) or U (unsatisfactory).

Under faculty guidance, students undertake an organized set of activities that responds to an identified need of a public health agency or health-related organization. The activities may involve the policy development, planning, implementation, administration or evaluation of public health services, or a combination of such activities. Students should be appropriately advanced before initiating the practicum.

5408. Introduction to Epidemiology and Biostatistics I

Three credits. Prerequisite: Open only to students in the MPH program, others with consent.

This is the first of a two-course sequence introducing students to concepts and methods of epidemiology, biostatistics and public health research. Topics include nature of variability, common probability distributions, causal reasoning, control of bias and confounding, descriptive and analytic design of observational and experimental studies, principles of disease screening and clinical efficacy.

5409. Introduction to Epidemiology and Biostatistics II

Three credits. Prerequisite: PUBH 5408; open only to students in the MPH program, others with consent.

This continuation of a two-course sequence on basic epidemiology, biostatistics and public health research addresses hypothesis generation, data collection methods, point and confidence interval estimation, inference testing, correlation/regression analysis, multivariable interaction, effect modification, power and meta-analysis. Evaluation of study designs, research methods and statistical procedures in clinical and public health literature will be stressed.

5410. Fundamentals of Strategic Planning

Three credits.

Fundamentals of strategic planning for public and non-profit organizations emphasizing the development of mission and vision statements, stakeholder analysis, scanning of internal and external environments; formulation and implementation of goals and objectives, definition of strategic issues, program planning, and evaluation. Introduction to related concepts in long range planning and group decision making. A group strategic planning project caps the course.

5414. Health Economics

Three credits.

Introduction to economic theory and various applications of economics in the analysis of the U.S. health care system.

5416. Principles of Quality Improvement

Three credits.

Quality improvement (QI) is the art and science of improving quality of care by continuously making small improvements in key steps or processes. Because systems of care are inherently complex, people need tools and methods to recognize and prioritize what changes are necessary and to know how to implement and evaluate such changes. Several basic principles or concepts underlie QI efforts, such as variation, leadership, systems thinking, and the psychology of motivation. This course will describe critical principles and concepts important to QI and will illustrate their practical application to health care settings.

5419. Public Health Agencies

Three credits.

Takes organization and management theory into practice. The focus is on governmental and non-profit agency management and administration. Emphasis is on developing and defending budgets, personnel management, working within the political context, with the community and with multiple agencies.

5430. Public Health Informatics

Three credits.

An overview of the basic information skills required to clarify a health-related information need and identify and use appropriate information resources to select materials that answer that need. The course will include discussions of health-related networks and information resources, demonstrations of their appropriate use, class exercises and a semester project.

5431. Public Health Research Methods

Three credits.

Introduction to conceptualization, methods, and analysis in public health research including formulation of research questions and hypotheses, development of research and analytic models, use of qualitative (interviewing and observation) and quantitative (secondary and survey data) data collection methods, and qualitative and quantitative data analysis leading to the formulation of research projects.

5432. SAS Programming and Data Management

Three credits.

Focuses on SAS programming to introduce the most commonly used features of the language, including data definition, modification and organization; data manipulation and selection; data display and basic data analysis using descriptive statistics. Students also learn to create datasets using data entry or importing from other programs.

5433. Health Program Evaluation

Three credits.

Methods of evaluating the implementation and impact of health programs. Topics include specification of program objectives and components, experimental and quasi-experimental evaluation designs, collection and analysis of program data, and the dissemination and application of evaluation results.

5434. Topics in Intermediate Biostatistics

Three credits.

An introduction to the interplay of experimental design and data analysis. Begins with a review of statistical estimation and testing. Topics include analysis of variance, linear regression, and power analysis. Applications are emphasized through the demonstration and use of statistical software.

5436. Intermediate Epidemiology

Three credits.

Major design and implementation issues in epidemiology and biomedical research. By the conclusion of the course, the student should have a better appreciation of the importance and complexities of epidemiological investigation.

5440. Public Health Issues in Genetics

Three credits.

The Human Genome Project and other research initiatives are providing us with new opportunities to screen, diagnose and provide novel interventions for a range of genetically determined diseases. The goal of this course is to provide sufficient understanding of inheritance patterns and genetics technology to appreciate the associated public health issues.

5451. Maternal and Child Health Policy and Programs

Three credits.

Examination of maternal and child health (MCH) programs and policy from the past to the present. Children's rights, advocacy and MCH history provide a foundation to understanding the philosophy and importance of MCH. The health and development of children are addressed starting with families and working through each of the developmental cycles: maternal and infant health, preschool, school age, and adolescent health. Topics that are cross- cutting across the MCH spectrum such as health disparities, women's health and international health.

5452. Injury and Violence Prevention

Three credits.

Injury and violence are major preventable public health problems with predictable patterns. The purpose of this course is to familiarize the student with the epidemiological literature of intentional and unintentional injuries. Focuses on the knowledge and skills required to design, implement, and evaluate scientifically sound community injury prevention and control programs.

5453. Chronic Disease Control

Three credits.

Chronic diseases are examined from clinical, epidemiological and program planning perspectives. Diseases examined include selected neoplastic diseases, cardiovascular diseases, chronic obstructive pulmonary diseases, cerebrovascular disease and diabetes. The role of public health agencies, for profit and non-profit entities in research, education, and risk reduction activities also are covered.

5454. Infectious Disease Control

Three credits.

Overview of microbiology. Agent-host environment relationship in causation and control of infectious diseases. Epidemiological patterns of major infectious diseases, with emphasis on sexually transmitted diseases, respiratory conditions and nonsocomial infections.

5455. Health Education

Three credits.

Methods for planning, presenting, and evaluating health education programs in communities, schools and worksites. Includes use of the Precede Model, setting of goals and objectives, behavior modification theory, group processes, teaching techniques and activities for developing and presenting workshops or courses.

5460. Health and Human Rights

Three credits.

Explores the many ways in which human health and well-being are related to human rights. Human rights are a field of international law that includes major treaties, treaty bodies, and adjudicatory mechanisms. This course will review the ways in which human rights instruments and jurisprudence have addressed health and issues related to health. Students will also study a wide range of substantive public health issues that have a human rights dimension, and consider the ways that human rights are used as advocacy tools to improve the structural environment that shapes the public's health.

5462. International Health

Three credits.

Examines primary health care as a model suited to the health needs of developing nations. Provides a broader understanding of the genesis of illness in developing countries and analyzes the kind of care required to have an impact on these illnesses.

5463. Comparative Health Systems

Three credits.

An analysis of national health systems in relation to their socio-economic, political, cultural, and epidemiologic contexts. The examination of alternative approaches to organizing scarce health care resources serves as an integrating theme.

5465. Occupational Health

Three credits.

Recognition and prevention of occupational disease and injuries, including social and political aspects and policy issues such as OSHA and Workers' Compensation laws. Overview of some of the major occupational disease issues. Approaches of industrial hygiene, ergonomics, and occupational epidemiology to understanding and preventing occupational health hazards.

5468. Occupational and Environmental Epidemiology

Three credits.

Topics include the history of occupational epidemiology, causal models, occupational exposure classification systems, environmental epidemiology, cohort mortality studies, cross-sectional surveys, case-control studies, ecologic studies, and statistical and methodological issues in research design and their solutions.

5472. Disability and Public Health

Three credits.

Examines both developmental and acquired disabilities from a public health perspective. Public health issues of cognitive and physical disability, including prevention, diagnostic and definitional considerations, epidemiological and statistical controversies, legal and ethical aspects, treatment considerations and research concerns.

5473. Women, Public Health and Reproduction

Three credits.

The history of reproduction and public health issues in the U.S.; underlying ethical issues in modern reproductive health care and key components of opposing views; major financial, social and emotional considerations in policy making and the increasing role that reproductive health plays in public health as a whole.

5474. Urban Health

Three credits.

Comprehensive overview of historical forces and social factors related to the health status of African-Americans, Hispanics, and other minority groups in American society. Although much of the course content examines current minority health issues, the use of theory and research to identify underlying causes and to suggest practical strategies/interventions for addressing these problems is a major focus.

5475. Public Health and Policy in an Aging Society

Three credits.

Examines the demographics of aging; organization, financing and delivery of health services for older adults; formal and informal caregiving; retirement and housing policy; and end of life care. Policy and ethical aspects of these topics are explored. Research-oriented, integrating empirical evidence to illustrate central concepts. Familiarity with basic principles of research design, including ability to critically read and synthesize scientific literature, is important.

5476. Community Mental Health

Three credits.

Overview of mental illness, substance abuse and related conditions, including epidemiological patterns and interventions. Chronic mental patients, the homeless mentally ill and other special groups. The community mental health movement and role of government. Regulations and mental health law.

5477. Food, Health and Politics

Three credits.

Comprehensive overview of the factors that influence how our food is grown; what foods are available, affordable, and advertised; and the ensuing public health implications. Examines the history of food production in America, the development of public and private food assistance programs, the fast food movement, and food marketing. Students will explore the political, social, economic and environmental factors that impact food availability and consumption, and discuss the implications of these factors on health outcomes, such as obesity, hunger, chronic diseases, and health disparities.

5478. Epidemiology of Substance Use Disorders and Psychiatric Co-Morbidities

Three credits. Not open to students who have passed PUBH 5497 when taught as Epidemiology of Substance Use Disorders.

Comprehensive survey of epidemiological research methods as they apply to substance use disorders and related psychiatric co-morbidities. Review of epidemiological research on the prevalence of the major substance use disorders and discussion of what is known about the etiology, treatment and prevention of these disorders. Incorporates recent advances in social and psychiatric epidemiology as well as health disparities attributable to sex/gender and race/ethnicity. Intended for, but not limited to, matriculated MPH students, public health professionals, health care providers, and the mental health and addiction workforce.

5479. Alcohol and Drug Policy Research

Three credits.

Policymakers and government officials are increasingly seeking answers to practical questions about the impact of policies and programs on the health of the population, as well as on crime rates, traffic accidents and harm to others. Discussion of the measures, methods and research designs used to investigate alcohol and drug policy issues, including prevention science. Intended for, but not limited to, matriculated MPH students, public health professionals, health care providers, and the mental health and addiction workforce.

5480. Clinical and Social Service Systems Research in Alcohol and Addiction Science

Three credits.

Focus on how to conduct clinical and health services research on treatment and early intervention services and how to critically evaluate research evidence. Assessment procedures, research designs, sampling techniques, and mediators and moderators of treatment effects at both the individual and systems levels of analysis. Intended for, but not limited to, matriculated MPH students, public health professionals, health care providers, and the mental health and addiction workforce. It is recommended that students have completed (or are in process of completing) coursework in statistics, epidemiology and/or research methods.

5481. Research Careers and the Responsible Conduct of Research in Alcohol and Addiction Science

Three credits. Prerequisite: At least two of PUBH 5478, 5479, and 5480, one of which may be taken concurrently, or by instructor consent.

Designed to achieve three objectives: 1) Teach students about the responsible conduct of research and ethical research practices; 2) Provide guidance on how to develop a sound research proposal by guiding students through the public and private grant writing process; and 3) Review career options and employment opportunities in addiction science.

5495. Independent Study in Public Health

Variable (1-9) credits. May be repeated for credit.

An individual course for those wishing to pursue special topics in the public health sciences under faculty supervision.

5497. Graduate Seminar in Public Health

Variable (1-6) credits. May be repeated for credit.

5498. Field Experience in Public Health Systems

Variable (3-9) credits. Prerequisite: Instructor consent. May be repeated for a total of nine credits.

Under direction by field preceptors, students will participate in an intensive service-learning experience wherein they will examine a timely public health issue from the perspective of health indicators/disease surveillance; policy development; planning, implementation, or evaluation of public health services; essential public health functions; and operational issues of a large complex public health agency/organization.

5499. Capstone Project in Public Health

Variable (3-6) credits. Prerequiste: Department consent.

5501. Foundations of Public Health and Disability

Three credits. Prerequisite: Open only to Disability Studies in Public Health certificate students, others by instructor consent.

Introductory survey of the ways in which disability, both developmental and acquired, is affected by, and interacts with, public health policy and practice. Students will have a foundational understanding of a comprehensive set of issues of both acquired and developmental disability as related to the core elements of public health as framed by the 10 Essential Public Health Services.

5502. Epidemiology of Disability

Three credits. Prerequisite: PUBH 5501; open only Disability Studies in Public Health certificate students, others by instructor consent.

Introduces epidemiologic research design and delves deeply into epidemiology as it applies to monitoring the health status of people with disabilities, diagnosing and investigating health problems, evaluating personal and population-based interventions, and conduct of research as uniquely affecting and affected by disability. Critically examines sources of public health and epidemiologic data that exist.

5503. Disability Law, Policy, Ethics, and Advocacy

Three credits. Prerequisite: PUBH 5501; open only Disability Studies in Public Health certificate students, others by instructor consent.

Introduction to policy and law affecting people with disabilities and public health approaches to meeting their individual needs as well as the needs of broader populations. Federal disability laws are reviewed in terms of both their implications and the implications of public health ethics on people with disabilities. Reviews the role courts have played in further shaping disability policy and the influence of public health ethics and the disability rights movement on decision-making in public health. Policy, legal and advocacy implications for public health at the international level, and essential tools for enforcing laws and regulations that protect health and ensure safety and for developing new policies and plans that support individual and community health efforts inclusive of people with disabilities.

5504. Public Health Interventions in Disability

Three credits. Prerequisite: PUBH 5501, 5502, and 5503; open only Disability Studies in Public Health certificate students, others by instructor consent.

Final course in the Disability Studies in Public Health Certificate. Aligns with the 10 Essential Public Health Services. Critically examines public health systems and programs across the lifespan available to people with disabilities that impact health. Extends on foundational principles that are evidence-based and driven by epidemiologic studies of disability within the context of existing laws and policies.

5500. Public Health in Practice

One credit. Prerequisite: PUBH 5407 and department consent. Corequisite: PUBH 5499 or 5950.

This course focuses on the interprofessional and experiential nature of public health practice. Through case-based pedagogy it orients students to the demands, expectations, and opportunities relevant to engaging with community-based practitioners and other stakeholders in advancing our public health agenda. The curriculum emphasizes the importance of professionalism and integrity in academic and service activities.

6490. Public Health Seminar

One credit. May be repeated for a total of four credits.

This student-centered seminar series will meet weekly in both the Fall and Spring semesters of the student's first two years and will introduce the students to a broad range of faculty and outside speakers in public health. The seminar will follow a cycle where students read and discuss papers for an upcoming presenter, the next week the speaker will present and participate in discussion and questions and answers, and the following week there will be a student presentation. During their fourth semester, students will present an overview of the literature supporting their proposed research project. This seminar is common to all students in the doctoral program in public health.

6491. Advanced Topics in Social and Behavioral Foundations of Public Health

One credit. Corequisite: PUBH 5405; instructor consent required.

This seminar course will be given in parallel with PUBH 5405 with the goal of more in-depth exploration of the topics presented in the survey course. The objective is to gain a more advanced understanding of the concepts and theories in the social and behavioral sciences and their ability to explain patterns of health, illness and health care utilization, practices and policies. In conjunction with the survey course, the biopsychosocial paradigm of health and illness will provide the conceptual framework for integrating the societal, interpersonal, and intrapersonal factors that influence the public's health.

6492. Advanced Topics in Health Promotion, Disease and Disability Prevention

One credit. Corequisite: AH 6324; instructor consent required.

An in-depth examination of health promotion and disease and disability prevention policies, programs and strategies. Continued examination of important national and international issues in health promotion and disease and disability prevention that compliment those raised in AH 6324. Students will critically analyze the health promotion and disease and disability prevention scientific literature relating to a critical issue of their choice. The format for this critique will be a seminar presentation and a written scientific synthesis.

6493. Occupational and Environmental Health: Exposures, Risk and Prevention

Three credits.

Exposure pathways, risk analysis techniques and prevention strategies relevant to both occupational and environmental settings. Lectures reinforced by discussion of case studies presented by students.

6495. Independent Study of Special Topics in Advanced Public Health Sciences

Variable (1-9) credits. Prerequisite: Instructor consent.

A doctoral-level independent study course for Ph.D. students who wish to pursue special topics in advanced public health sciences under faculty supervision.