

Public Health (PUBHLTH)

Courses

PUBHLTH 1. Principles of Public Health. 4 Units.

Discover key principles of public health and health determinants in communities. Explores the ecological model, analyzing interconnections among natural and social determinants influencing health outcomes. Topics include epidemiology, environmental health, and health policy.

Restriction: Nursing Science Majors have first consideration for enrollment. Public Health Policy Majors have first consideration for enrollment. Public Health Sciences Majors have first consideration for enrollment.

(III)

PUBHLTH 2. Case Studies in Public Health Practice. 4 Units.

Explores public health through diverse case studies illustrating foundational principles and ongoing evolution. Topics include epidemiological investigations, health policy analysis, community interventions, and global health challenges.

Prerequisite: PUBHLTH 1

Restriction: Public Health Policy Majors have first consideration for enrollment. Public Health Sciences Majors have first consideration for enrollment.

(II)

PUBHLTH 7A. Public Health Statistics I. 4 Units.

First of two courses in statistics. Introduces fundamental statistics for health science students, emphasizing quantitative reasoning from a public health perspective. Topics include probability, data analysis, and statistical inference.

Overlaps with SOCECOL 13, STATS 7, STATS 8, MGMT 7.

Restriction: Public Health Policy Majors have first consideration for enrollment. Public Health Sciences Majors have first consideration for enrollment.

(Va)

PUBHLTH 7B. Public Health Statistics II. 4 Units.

Second of two courses in statistics. Focus on regression, probability, and significance testing from a public health perspective. Prepares students to interpret scientific publications and conduct basic statistical analyses.

Prerequisite: PUBHLTH 7A

Restriction: Public Health Majors only. Public Health Policy Majors only. Public Health Sciences Majors only.

(Va)

PUBHLTH 10. Special Topics in Public Health . 2-4 Units.

Introduction to emerging topics in public health. Topics addressed vary each quarter.

Repeatability: Unlimited as topics vary.

PUBHLTH 30. Introduction to Urban Environmental Health. 4 Units.

Explores urban health disparities, focusing on social determinants and environmental impacts. Examines global urban health challenges, disease burdens, and historical legacies of contamination. Introduces interventions and policies to mitigate urban health inequalities and enhance public health in diverse urban settings.

(II)

PUBHLTH 60. Environmental Quality and Health. 4 Units.

Explores the interplay of pollution and human health: population, epidemiology, toxicology, zoonotic diseases, water and air quality, climate change, waste management, contaminants (metals, pesticides, organics, radioactivity), and environmental justice. Delves into risk assessment and public health policy implications.

(II)

PUBHLTH 80. AIDS Fundamentals. 4 Units.

Considers the biological and sociological bases of the AIDS epidemic. Topics include the history of AIDS, current medical knowledge, transmission, risk reduction, and how the community can respond.

Same as BIO SCI 45.

(II)

PUBHLTH 90. Natural Disasters. 4 Units.

Examine natural disasters and their impacts on humans. Topics include volcanoes, earthquakes, severe weather, fires, floods, landslides, coastal processes, and risk assessment. Use WebGIS for hazard data and risk analysis in California.

Overlaps with EARTHSS 17.

(II)

PUBHLTH 91. Disparities in Health Care. 2-8 Units.

Students become agents of social change for equitable health care delivery. Focus on cultural competency, awareness, communication skills, and disparities. Explore clinical, public service, and research opportunities. Engage with guest lecturers to cultivate and empower diverse communities.

Grading Option: Pass/no pass only.

Repeatability: May be taken for credit for 8 units.

PUBHLTH 100. Special Topics in Public Health. 4 Units.

Studies in selected areas of public health. Topics addressed vary each quarter. Course may be offered online when topic is Public Health in the Corporate World.

Prerequisite: PUBHLTH 1

Repeatability: Unlimited as topics vary.

PUBHLTH 101. Introduction to Epidemiology. 4 Units.

The distribution of disease and injury across time, space, and populations. Covers basic concepts and methods of descriptive epidemiology including the natural history of disease, data, and indices of health.

Prerequisite: STATS 7 or STATS 8 or PUBHLTH 7 or PUBHLTH 7A

Restriction: Public Health Sciences Majors have first consideration for enrollment. Public Health Policy Majors have first consideration for enrollment.

PUBHLTH 102. Social Epidemiology. 4 Units.

Overviews evidence linking environmental factors to mental and physical disorders including such variables as socioeconomic status, income inequality, work stress, job loss, social capital, location, and other demographic characteristics. Measurement and research design issues of both individual and aggregate levels.

Prerequisite: Recommended: (PSCI 9 or PSCI 11C or PSYCH 7A or PSYCH 9C) and SOCECOL 10 and SOCECOL 13.

Same as PSCI 183S.

Restriction: Psychological Science Majors have first consideration for enrollment. Psychology and Social Behavior Majors have first consideration for enrollment. Public Health Sciences Majors have first consideration for enrollment. Public Health Policy Majors have first consideration for enrollment. Social Ecology Majors have first consideration for enrollment.

PUBHLTH 105. Introduction to Health Informatics. 4 Units.

Broad overview of medical informatics for students with varied backgrounds. Electronic medical records, online resources, mobile technologies, patient safety, and computational design. Legal, ethical, and public policy issues. Health systems management. Evaluation and fieldwork for health systems.

Prerequisite: WRITING 60 or WRITING 30 or WRITING 31 or HUMAN 1C or HUMAN H1C. WRITING 60 with a grade of C or better. WRITING 30 with a grade of C or better. WRITING 31 with a grade of C or better. HUMAN 1C with a grade of C or better. HUMAN H1C with a grade of C or better

Same as IN4MATX 171.

Restriction: Upper-division students only. Satisfactory completion of the Lower-Division Writing requirement.

PUBHLTH 106. Project in Health Informatics. 4 Units.

Students undertake significant quarter-long projects related to health informatics. Topics may include field evaluations of health care technologies, prototypes, iterative design, and system implementations.

Prerequisite: PUBHLTH 105 or IN4MATX 171

Same as IN4MATX 172.

PUBHLTH 107. Epidemiology of Drug Use and Misuse. 4 Units.

Applies epidemiologic concepts to the use and misuse of licit/illicit substances. Emphasizes descriptive aspects of drug use and determinants of progressing from experimental use to misuse. Assesses subgroups of abusers, risk factors, trends, and surveillance techniques for estimating drug prevalence.

Prerequisite: PUBHLTH 101

Restriction: Upper-division students only. Public Health Sciences Majors have first consideration for enrollment. Public Health Policy Majors have first consideration for enrollment.

PUBHLTH 109. Consumer Health Informatics. 4 Units.

Consumer health informatics is a subfield of health informatics aimed to empower healthcare consumers through a variety of consumer-facing technologies. Covers health behavior change, health literacy, social support, and the design, evaluation, and implementation of major technological applications.

Prerequisite: IN4MATX 171 or PUBHLTH 105. IN4MATX 171 with a grade of C or better. PUBHLTH 105 with a grade of C or better

Repeatability: May be taken for credit 3 times.

Same as IN4MATX 173.

Restriction: Health Informatics Minors have first consideration for enrollment. Public Health Majors have first consideration for enrollment. School of Info & Computer Sci students have first consideration for enrollment.

PUBHLTH 110. Health Data Analytics. 4 Units.

The increasing availability of electronic health data provides an unprecedented opportunity to use data-driven approaches to improve human health. Equips students with essential skills in curating, managing, and analyzing health data, focusing on electronic health records.

Prerequisite: IN4MATX 171 or PUBHLTH 105. IN4MATX 171 with a grade of C or better. PUBHLTH 105 with a grade of C or better

Same as IN4MATX 174.

Restriction: Public Health Majors have first consideration for enrollment. School of Info & Computer Sci students have first consideration for enrollment.

PUBHLTH 112. Obesity Epidemiology. 4 Units.

Exploration of the epidemiological evidence of obesity nationally and globally including the etiology of the obesity epidemic, various measurements of obesity, associated comorbidities, prognosis, treatment approaches, and prevention strategies. Emphasize preventing obesity at both individual and societal levels.

Prerequisite: PUBHLTH 1

PUBHLTH 115. Community, Social Justice, and Health Equity Research for Action. 4 Units.

Focuses on community as a unit of identity, community, well-being, and social justice perspectives and initiatives to promote community health. Addresses community change and improvements in community well-being, with a focus on health equity research for action.

Prerequisite: PUBHLTH 1 or PUBHLTH 2 or CHC/LAT 61 or CHC/LAT 62 or CHC/LAT 63

Same as CHC/LAT 152B.

PUBHLTH 119. Special Topics in Epidemiology and Genetics. 4 Units.

Studies in selected areas of epidemiology and genetics. Topics addressed vary each quarter.

Prerequisite: PUBHLTH 1

Repeatability: Unlimited as topics vary.

PUBHLTH 120. Nutrition and Global Health. 4 Units.

Global issues related to nutrition and public health. Evaluation of nutritional risk factors associated with the development of chronic diseases and the role of nutritional medicine in prevention. Topics include food safety, communicable diseases, supplements, and regulatory issues.

Restriction: Public Health Sciences Majors have first consideration for enrollment. Public Health Policy Majors have first consideration for enrollment.

PUBHLTH 122. Health Policy. 4 Units.

Considers social and economic aspects of health and disease in the United States. What are the proper roles of the individual, community, and government in improving health and health care? International comparisons will be made wherever possible.

Same as UPPP 170.

Restriction: Environmental Science and Policy Majors have first consideration for enrollment. Public Health Policy Majors have first consideration for enrollment. Public Health Sciences Majors have first consideration for enrollment. Social Ecology Majors have first consideration for enrollment. Urban Studies Majors have first consideration for enrollment.

PUBHLTH 125. Foundations of Community Health. 4 Units.

A social ecological framework for understanding community health is presented. Measures of individual and community health are compared, and the influence of personal and environmental factors on individual, group, and population health is examined. Community health promotion strategies are discussed.

Same as UPPP 112.

Restriction: Environmental Science and Policy Majors have first consideration for enrollment. Public Health Policy Majors have first consideration for enrollment. Public Health Sciences Majors have first consideration for enrollment. Social Ecology Majors have first consideration for enrollment. Urban Studies Majors have first consideration for enrollment.

PUBHLTH 126. Public Health Law: Fundamentals in Action. 4 Units.

Addresses the relationship of U.S. public health law to health systems at the individual and population levels. Examines legislative and judicial concepts and how they are applied to disease prevention strategies, health services, management, and policy.

PUBHLTH 127. Public Health Programs for the Corporate World. 4 Units.

International perspective on workplace health promotion. Strategies for developing programs to improve employee health and to decrease risks of chronic degenerative diseases. Case studies include assessment of employee health, program design, implementation, and evaluation. Emphasis on disease prevention.

PUBHLTH 129. Public Health Administration. 4 Units.

Examines historical aspects of public health administration including policies, procedures, trends, and development of organizations. Addresses information and skills necessary to succeed in public health leadership roles. Discusses strategic planning, collaborations, and ethical considerations for successful management in public health.

Prerequisite: PUBHLTH 1

Restriction: Upper-division students only. Public Health Policy Majors have first consideration for enrollment. Public Health Sciences Majors have first consideration for enrollment.

PUBHLTH 132. American Public Policy. 4 Units.

Focuses on the development and implementation of public policy in the United States. Lectures cover theoretical models of the policy process as well as significant problems facing contemporary American decision-makers.

Same as POL SCI 121G, SOC SCI 152C, UPPP 129.

PUBHLTH 135. Medical Sociology. 4 Units.

Current problems in U.S. health-care system and proposals for reform. Examines financial barriers to access; problem of patient dumping; underinsurance; prenatal and perinatal care; child services; preventative care and needs of the elderly; minorities; low-income people; undocumented.

Same as SOCIOL 154.

Restriction: Upper-division students only. Sociology Majors have first consideration for enrollment.

PUBHLTH 138. Tobacco Control Policy. 4 Units.

Explore tobacco control's interdisciplinary facets: history, policy, advocacy, and public health science. Analyze industry tactics, litigation, and impact of tobacco control policies. Discuss parallels with emerging industries. Culminates in a group project on tobacco's stakeholders.

Restriction: Public Health Majors only. Public Health Policy Majors only. Public Health Sciences Majors only.

PUBHLTH 139. Special Topics in Health Policy and Administration. 4 Units.

Studies in selected areas of health policy and administration. Topics addressed vary each quarter.

Prerequisite: PUBHLTH 1

Repeatability: Unlimited as topics vary.

Restriction: Public Health Sciences Majors have first consideration for enrollment. Public Health Policy Majors have first consideration for enrollment.

PUBHLTH 141. Clinical Health Psychology. 4 Units.

Behavioral role in etiology, treatment, and prevention of certain diseases. Behavioral intervention including biofeedback, stress-, pain-management, health habit counseling, and other skills to assist patients make cognitive, emotional, and behavioral changes needed to cope with disease or achieve better health.

Prerequisite: Recommended: PSCI 9 or PSCI 11C or PSYCH 7A or PSYCH 9C.

Same as PSCI 141H.

Restriction: Psychological Science Majors have first consideration for enrollment. Psychology and Social Behavior Majors have first consideration for enrollment. Public Health Sciences Majors have first consideration for enrollment. Public Health Policy Majors have first consideration for enrollment. Social Ecology Majors have first consideration for enrollment.

PUBHLTH 144. Health Behavior Theory. 4 Units.

Introduction to foundational theories for health behavior change. Explores individual, interpersonal, and community-level theories applied to health interventions. Understand societal challenges and preventable behavioral causes of diseases.

Restriction: Public Health Policy Majors have first consideration for enrollment. Public Health Sciences Majors have first consideration for enrollment.

PUBHLTH 146. Health Promotion Programs. 4 Units.

Explores social ecological perspectives and the role of behavior change theories in health promotion planning. Introduces systematic planning for the development of an intervention program. Emphasizes the cornerstone of planning, implementing, and evaluating a health promotion program.

Prerequisite: PUBHLTH 1

Restriction: Upper-division students only. Public Health Policy Majors have first consideration for enrollment. Public Health Sciences Majors have first consideration for enrollment.

PUBHLTH 147. Drug Abuse and its Prevention. 4 Units.

Theoretical and practical underpinnings of drug abuse and its prevention at the individual and population levels. Students practice developing drug abuse prevention schemes for specific populations. Recent developments in pharmacological and biobehavioral theories of drug dependence are explored.

Restriction: Public Health Sciences Majors have first consideration for enrollment. Public Health Policy Majors have first consideration for enrollment.

PUBHLTH 148. Public Health Communication. 4 Units.

Theoretical foundations and practical use of communication sciences in public health, covering effective techniques such as audience segmentation, tailored messaging, and multi-model communication for behavior change campaigns across various settings. Includes crisis communication strategies.

Prerequisite: PUBHLTH 1 and PUBHLTH 2

Restriction: Public Health Policy Majors have first consideration for enrollment. Public Health Sciences Majors have first consideration for enrollment.

PUBHLTH 152. Happiness, Wellbeing, and Health. 4 Units.

Explores positive and protective psychological, social, and behavioral factors that influence physical, mental/emotional, and social wellbeing.

Prerequisite: PUBHLTH 1

PUBHLTH 158. Sociology of Mental Health. 4 Units.

Examines the social causes, consequences, and patterns of mental health and illness. Students learn a sociological perspective on mental health, mental illness or disorder, and medicine/health care, ranging from social definitions, roles, and interactions to societal stratification and international patterns.

Same as SOCIOL 158.

Restriction: Public Health Majors only. Sociology Majors only.

PUBHLTH 159. Special Topics in Social and Behavioral Health Science. 4 Units.

Studies in selected areas of social and behavioral health sciences. Topics addressed vary each quarter.

Prerequisite: PUBHLTH 1

Repeatability: Unlimited as topics vary.

PUBHLTH 161. Environmental Geology. 4 Units.

Explores geologic principles applied to environmental and health issues. Topics include earth systems, earth materials, water pollution, natural hazards, waste disposal, climate change, and geology's impact on human health in UCI and Orange County.

Restriction: Public Health Policy Majors have first consideration for enrollment. Public Health Sciences Majors have first consideration for enrollment.

PUBHLTH 163. Introduction to Environmental Health Science. 4 Units.

Explores environmental health's role in disease prevention and human well-being. Topics include air and water quality, food safety, built environment, radiation exposure, climate change, environmental justice, children's health, and policy interventions for public health improvement.

Restriction: Public Health Policy Majors have first consideration for enrollment. Public Health Sciences Majors have first consideration for enrollment.

PUBHLTH 168. Nuclear Environments. 4 Units.

Understanding the impact of the nuclear age on the environment and human health through interrelated developments of nuclear power and nuclear weapons. The early years of weapon development, catastrophic environmental pollution, perils of nuclear power in the U.S. and Russia.

Same as INTL ST 122, SOCECOL E127.

(VIII)

PUBHLTH 170. Introduction to Global Health. 4 Units.

Provides a foundational interdisciplinary understanding of global health issues and their importance to societal goals, including poverty reduction, sustainable development, and international contexts of wellness and covers major communicable and non-communicable diseases and demographic patterns of disease burden.

Prerequisite: PUBHLTH 1

(VIII)

PUBHLTH 171. Human Exposure to Environmental Contaminants. 4 Units.

Explores origins of environmental health awareness. Covers exposure assessment theory, variability, risk assessment integration, and societal implications. Discusses notable environmental contaminants impacting human health.

PUBHLTH 172. Climate Change and Disaster Management. 4 Units.

Examines the social, economic, environmental, and health impacts of anthropogenic climate change through engaged learning that integrates practice and theory.

PUBHLTH 173. Health and Global Environmental Change . 4 Units.

Examines global environmental and climate change's impact on human health. Explores metabolic pandemics, infectious diseases, and underlying health conditions. Fosters interdisciplinary collaboration among environmental health, public health, medicine, and policy sciences.

Prerequisite: One upper-division course in environmental science, public health, environmental policy, and/or environmental management.

Restriction: Public Health Policy Majors have first consideration for enrollment. Public Health Sciences Majors have first consideration for enrollment.

PUBHLTH 174. Global Health Ethics. 4 Units.

Provides a foundation for understanding and application of key issues.

(VIII)

PUBHLTH 177. Global Health Policy and Diplomacy. 4 Units.

Fundamental principles and consequences of global health policy and diplomacy, including governance structure, functions, analysis, advocacy, and outcomes. Emphasizes practical application of multilateral policies for global health security and responses to transnational threats such as pandemics, climate, pollution, and migration.

PUBHLTH 179. Special Topics in Environmental and Global Health Science. 4 Units.

Studies in selected areas of environmental and global health sciences. Topics addressed vary each quarter.

Prerequisite: PUBHLTH 1

Repeatability: Unlimited as topics vary.

PUBHLTH 180. Epidemiology of Infectious Disease. 4 Units.

Explores the distribution of infectious disease and disease risks among human populations. Covers concepts and methods of infectious disease epidemiology, including case studies of important infectious diseases such as COVID-19, HIV, and malaria.

Prerequisite: PUBHLTH 1

PUBHLTH 181. Infectious Disease Dynamics. 4 Units.

Learn how the immune system interacts with infectious diseases, in particular with viral infections. An introduction to basic virology and immunology, it concentrates on the way in which the immune system is critical to the prevention of infections.

PUBHLTH 182. Evolutionary and Ecological Principles in Medicine. 4 Units.

Explore the dynamics of populations on an ecological, epidemiological, and medical level. Considers the dynamics of competition, predation, and parasitism; the spread and control of infectious diseases; and the in vivo dynamics of viral infections and the immune system.

Restriction: Public Health Majors have first consideration for enrollment.

PUBHLTH 189. Special Topics in Infectious Diseases. 4 Units.

Studies in selected areas of infectious diseases. Topics addressed vary each quarter.

Prerequisite: PUBHLTH 1

Repeatability: Unlimited as topics vary.

Restriction: Public Health Sciences Majors have first consideration for enrollment. Public Health Policy Majors have first consideration for enrollment.

PUBHLTH 190. Geographic Information Systems for Public Health. 4 Units.

Extensive use of GIS software. Lecture topics cover mapping basics, projections, and geocoding. Practical tutorials and lab sessions for hands-on practice with public health data. Assessments focus on synthesizing GIS tools for problem-solving.

Concurrent with PUBHLTH 283.

PUBHLTH 191B. Seminar: Advances and Challenges in Public Health. 2 Units.

Forum for exploring recent advances and challenges in all disciplines of public health research and practice. Features case studies exemplifying the integration of core competencies with cross-cutting interdisciplinary themes of public health.

Grading Option: Pass/no pass only.

Concurrent with PUBHLTH 291B.

PUBHLTH 191C. Seminar: Advances and Challenges in Public Health. 2 Units.

Forum for exploring recent advances and challenges in all disciplines of public health research and practice. Features case studies exemplifying the integration of core competencies with cross-cutting interdisciplinary themes of public health.

Grading Option: Pass/no pass only.

Repeatability: May be repeated for credit unlimited times.

Concurrent with PUBHLTH 291C.

PUBHLTH H192A. Public Health Honors Seminar and Thesis I. 4 Units.

Advanced research opportunity for Public Health Honors. Students conduct research projects with faculty, attend lectures, and engage in timeline creation. Requirements include upper-division coursework, GPA criteria, and a faculty-approved thesis project.

Corequisite: PUBHLTH 199

Repeatability: May be repeated for credit unlimited times.

Restriction: Graduate students only. Public Health Policy Majors only. Public Health Sciences Majors only.

PUBHLTH H192B. Public Health Honors Seminar and Thesis II. 4 Units.

Students initiate and complete data collection for the honors thesis. In addition, students begin data analysis and summarize results at a class symposium at the end of the quarter. A faculty mentor provides supervision and feedback on thesis chapters.

Corequisite: PUBHLTH 199

Prerequisite: PUBHLTH H192A

Grading Option: Pass/no pass only.

Restriction: Public Health Policy Majors only. Public Health Sciences Majors only.

PUBHLTH H192C. Public Health Honors Seminar and Thesis III. 4 Units.

Students write their honors research project (PUBHLTH H192A-PUBHLTH H192B) and prepare an oral report to be presented at a class symposium at the end of the quarter. A faculty mentor provides supervision and feedback on thesis chapters.

Corequisite: PUBHLTH 199

Prerequisite: PUBHLTH H192B

Restriction: Public Health Policy Majors only. Public Health Sciences Majors only.

PUBHLTH 194A. Clinical and Translational Research Preparatory I. 4 Units.

Provides training for students with an interest in clinical and translational research in the health care setting. Cultivates skills for study design, research literature review, ethics, responsible conduct of research, and cultural competence while emphasizing professionalism and personal responsibility.

Prerequisite: BIO SCI 99 and BIO SCI 194S and CHEM 1C and CHEM 1LC and CHEM 1LD. Satisfactory completion of the Lower-Division Writing requirement.

Restriction: Upper-division students only.

PUBHLTH 194B. Clinical and Translational Research Preparatory II. 1-4 Units.

Provides opportunities for students to participate in clinical and translational research through rotations in at least two health care settings. Builds on preparation through the first course (194A) in the sequence to support exploration of various research topics.

Prerequisite: PUBHLTH 194A. Satisfactory completion of the Lower-Division Writing requirement.

Restriction: Upper-division students only.

PUBHLTH 194C. Clinical and Translational Research Preparatory III. 4 Units.

Provides opportunities for students to work closely in a particular clinical and translational research setting. Builds on preparation through the didactic instruction presented in first course of the sequence (194A) to support deeper engagement on a particular research topic.

Prerequisite: PUBHLTH 194B. Satisfactory completion of the Lower-Division Writing requirement.

Repeatability: May be repeated for credit unlimited times.

Restriction: Upper-division students only.

PUBHLTH 195W. Public Health Practicum and Culminating Experience. 8 Units.

Provides direct opportunities for Public Health majors to observe and participate in public health activities and/or research; and to cultivate skills for verbal and written communication of contemporary public health topics for an integrative culminating experience.

Prerequisite: PUBHLTH 1 and PUBHLTH 2. Satisfactory completion of the Lower-Division Writing requirement.

Restriction: Upper-division students only. Public Health Sciences Majors only. Public Health Policy Majors only.

(Ib)

PUBHLTH 196A. Clinical and Translational Research Preparatory I - Community-Based Research and Evaluation. 4 Units.

Provides training for students with an interest in clinical and translational research in a community-based setting. Cultivates skills for study design, research literature review, ethics, responsible conduct of research, and cultural competence while emphasizing professionalism and personal responsibility.

Overlaps with PUBHLTH 194A.

PUBHLTH 196B. Clinical and Translational Research Preparatory II - Community-Based Research and Evaluation. 4 Units.

Provides the unique opportunity for students to participate in research in two or more community-based settings. Builds on preparation through PUBHLTH 196A to support exploration of various research topics.

Prerequisite: PUBHLTH 196A

PUBHLTH 196C. Clinical and Translational Research Preparatory III - Community-Based Research and Evaluation III. 4 Units.

Final course in the 196 series where students have the unique opportunity to participate in permanent research rotation. Instructs students how to design, perform, interpret, and discuss independent research in a collaborative atmosphere.

Prerequisite: PUBHLTH 196B

PUBHLTH 197. Field Studies in Public Health. 2-12 Units.

Join faculty on field studies or work at field agencies post-practicum. Gain hands-on experience in real-world settings. Ideal for practical application of theoretical knowledge in diverse environments.

Prerequisite: PUBHLTH 1 and PUBHLTH 2

Grading Option: Pass/no pass only.

Repeatability: May be taken for credit for 12 units.

PUBHLTH 198. Directed Studies. 1-4 Units.

Engage in faculty-guided research activities individually or in small groups. Explore diverse topics, develop critical thinking, and enhance research skills. Ideal for hands-on learning and academic growth.

Prerequisite: PUBHLTH 1

Grading Option: Pass/no pass only.

Repeatability: May be repeated for credit unlimited times.

PUBHLTH 199. Undergraduate Research. 1-4 Units.

Engage in original research with public health faculty. Attend research group meetings and submit quarterly reports. Ideal for students pursuing research careers or advanced degrees.

Repeatability: May be repeated for credit unlimited times.

Restriction: Upper-division students only.

PUBHLTH 200. Foundations of Public Health. 4 Units.

Explores public health research and practices fundamentals from a multidisciplinary view. Gain core skills for crosscutting approaches essential in public health.

Restriction: Graduate students only. Public Health Majors only. College of Health Sciences students only. Master of Public Health Degree students only. Program in Public Health students only.

PUBHLTH 204A. Biostatistics I: Introduction to Statistical Methods. 4 Units.

Introduction to the basic statistical techniques commonly used in public health research. Topics include descriptive statistics, basic probability, inferential statistics (estimation, confidence intervals, and hypothesis testing), and contingency tables. SAS software is introduced.

Same as EPIDEM 204A.

Restriction: Graduate students only.

PUBHLTH 204B. Biostatistics II: Intermediate Statistical Methods. 4 Units.

Explores advanced statistical analysis methods for biological and medical applications. Topics include linear, logistic, and generalized linear regression models like Poisson regression.

Prerequisite: EPIDEM 204A. EPIDEM 204A with a grade of B or better

Same as EPIDEM 204B.

Restriction: Graduate students only.

PUBHLTH 204C. Biostatistics III: Advanced Statistical Methods. 4 Units.

Intended for graduate students in epidemiology, public health, and related fields. Introduces statistical methods for analyzing survival and longitudinal/clustered data, and techniques to resolve missing data.

Prerequisite: EPIDEM 204B. EPIDEM 204B with a grade of B or better

Same as EPIDEM 204C.

Restriction: Graduate students only.

PUBHLTH 206A. Principles of Epidemiology. 4 Units.

Fundamental principles of epidemiology, biostatistics, and epidemiological research. Topics include research methods of measuring health problems in populations, disease control and prevention in populations, how epidemiology contributes to knowledge of disease etiology, and biostatistical analysis and interpretation of epidemiologic data.

Same as EPIDEM 200A.

Restriction: Graduate students only.

PUBHLTH 206B. Intermediate Epidemiology. 4 Units.

Explores conceptual aspects of epidemiology, focusing on strengths and limitations of observational designs. Learn to identify, quantify, and correct bias (e.g. selection, confounding), and evaluate causal identical conditions. Gain skills to evaluate study designs systematically.

Prerequisite: PUBHLTH 206A. PUBHLTH 206A with a grade of B or better

Same as EPIDEM 200B.

Restriction: Graduate students only. Epidemiology Majors only. College of Health Sciences students only. Master of Public Health Degree students only. Program in Public Health students only.

PUBHLTH 206C. Advanced Epidemiologic Methods. 4 Units.

Advanced topics in the design and statistical analysis of epidemiologic studies. Topics include simulation methods, counter-matching and multiphase study designs, missing data, and Bayesian analysis. Published simulation studies are discussed and replicated using the R software package.

Prerequisite: EPIDEM 200A and EPIDEM 200B. EPIDEM 200A with a grade of B or better. EPIDEM 200B with a grade of B or better

Same as EPIDEM 200C.

PUBHLTH 207A. Probability and Statistics in Public Health. 4 Units.

An introduction to probability and statistical methods, using examples in public health. Topics include descriptive statistics, laws of probability, discrete and continuous probability distributions, estimation, confidence intervals, hypothesis testing, and power calculations for one- and two-sample comparisons.

Prerequisite: PUBHLTH 206A. PUBHLTH 206A with a grade of B or better

Restriction: Program in Public Health students only. Master of Public Health Degree students only. Graduate students only. Public Health Majors only.

PUBHLTH 207B. Analysis of Public Health Data Using Statistical Software. 4 Units.

Overview of common statistical methods in public health and how to implement them in R. Topics include linear regression, ANOVA, the Kruskal-Wallis test, logistic regression, missing data and censoring, Kaplan-Meier survival curves, log-rank tests, and Cox regression.

Prerequisite: PUBHLTH 207A. PUBHLTH 207A with a grade of B or better

Restriction: Program in Public Health students only. Master of Public Health Degree students only. Graduate students only. Public Health Majors only.

PUBHLTH 208. Advances in Social Epidemiology. 4 Units.

Introduces major themes in social epidemiology, adopting a topical approach. Weekly topics include theories, debates, methods, policy implications, and empirical examples of specific social factors. Students apply principles to their own health interests.

Restriction: Graduate students only.

PUBHLTH 209. Methods of Demographic Analysis. 4 Units.

Introduces basic demographic methods used in social science and public health research. Topics include sources and limitations of demographic data; components of population growth; measures of nuptiality, fertility, mortality, and population mobility projection methods; and demographic models.

Same as SOCIOL 226A.

Restriction: Graduate students only.

PUBHLTH 210. Theory-Driven Secondary Data Analysis. 4 Units.

Learn how to develop and test theoretically-driven research questions in secondary data sources. Logic of theory building and testing, how to conduct statistical analyses on testable research questions, and interpret results. There is also a lab component.

Restriction: Graduate students only. Environmental Health Sciences Majors only. Epidemiology Majors only. Public Health Majors only.

PUBHLTH 213. Epidemiology in Global Health. 4 Units.

Examines epidemiology and global health. Topics include global health concepts, research in resource-poor settings, climate change's impact on health, and interventions in low-income settings. Emphasizes literature review, health determinants, and interdisciplinary approaches with a practical focus.

Restriction: Graduate students only. Environmental Health Sciences Majors only. Epidemiology Majors only. Public Health Majors only.

PUBHLTH 216. Cancer Epidemiology. 4 Units.

Concentrates on understanding how epidemiology plays a role in the search for cancer etiology, prevention, control, and treatment; gives an overview of cancer research with an appreciation of the multidisciplinary nature of the field.

Prerequisite: EPIDEM 200A or PUBHLTH 206A. EPIDEM 200A with a grade of B- or better. PUBHLTH 206A with a grade of B- or better

Same as EPIDEM 201.

Restriction: Graduate students only.

PUBHLTH 222A. Health Policy and Management. 4 Units.

Multidisciplinary inquiry into theory and practice concerned with delivery, quantity, costs of health care for individuals and populations. Explores managerial and policy concerns regarding structure, process, outcomes of health services including the costs, financing, organization, outcomes, and accessibility of care.

Same as UPPP 243.

Restriction: Graduate students only. Public Health Majors have first consideration for enrollment. Urban and Regional Planning Majors have first consideration for enrollment. Master of Public Health Degree students have first consideration for enrollment. Master of Public Policy Degree students have first consideration for enrollment.

PUBHLTH 222B. Health Care Delivery and Financing. 4 Units.

Advances health policy comprehension. Explores healthcare delivery, spending, organizations, quality, insurance programs, payment mechanisms, reforms, and innovation. Special emphasis on incentives for payers, providers, and patients, influencing healthcare decisions.

Prerequisite: PUBHLTH 222A. PUBHLTH 222A with a grade of B- or better

Restriction: Graduate students only.

PUBHLTH 223. Risk Communication. 4 Units.

Examines theory and research related to the communication of scientific information in risk communication contexts, risk perceptions, and behavior as related to decision-making under risk.

Restriction: Graduate students only.

PUBHLTH 225. Health Politics and Policy. 4 Units.

Explore health policy according to the World Health Organization, focusing on decisions, plans, and actions for societal health goals. Understand political institutions, stakeholders, and interest groups influencing policy. Develop policy analysis skills and advocacy strategies through an interdisciplinary approach.

Prerequisite or corequisite: PUBHLTH 222. PUBHLTH 222 with a grade of B- or better

Restriction: Graduate students only.

PUBHLTH 228. Health Economics. 4 Units.

An overview of health economics with a focus on U.S. healthcare and health management. Explore economic aspects such as evaluation, medical care demand, insurance, productivity, and markets for healthcare professionals. Delve into microeconomic theory, government regulation, and health reform.

Restriction: Graduate students only.

PUBHLTH 242. Theories of Health Communication. 4 Units.

Evaluates health communication theory and strategies for diverse settings (healthcare, community, social media). Emphasizes audience segmentation, personalized tailoring, and subgroup targeting in case studies. Explores multimodal communication's role in persuasive messaging.

Restriction: Graduate students only.

PUBHLTH 244. Health Behavior Theory. 4 Units.

Explores theories of health behavior change, moving from individual to broader contexts, with a focus on applying theory to create population-based theory-driven models delineating behavioral determinants of public health problems.

Restriction: Graduate students only. Public Health Majors only. Master of Public Health Degree students only.

PUBHLTH 245. Health Promotion Planning. 4 Units.

Explores strategic planning for public health interventions, emphasizing social and behavioral health science. Develops intervention plans targeting specific health issues and populations.

Restriction: Graduate students only.

PUBHLTH 246. Social Research Methods. 4 Units.

An interactive graduate seminar covering topics related to the research process and study design. Begins with conceptualizing research questions, hypotheses, and then turns to topics in measurement and concludes with experimental, quasi-experimental, and observational study designs.

Restriction: Graduate students only.

PUBHLTH 247. Program Evaluation. 4 Units.

Interactive course develops program evaluation plans. Students create plans for health programs in partnership with community organizations. Activities include lectures, discussions, readings, critiques, presentations, and final evaluation plan submission.

Restriction: Graduate students only.

PUBHLTH 248. Fundamentals of Maternal and Child Health - Programs, Problems, and Policy. 4 Units.

Explores Maternal and Child Health (MCH) through public health and neurobiological perspectives. Study key factors influencing global development. Examine historical foundations, conceptual frameworks, and current issues such as COVID-19's impact. Analyze programs and legislation addressing MCH disparities.

Restriction: Graduate students only.

PUBHLTH 250. Health Status and Care Disparities. 4 Units.

Expert health care providers present viewpoints and interdisciplinary strategies for addressing sociocultural, economic, gender, age, and other disparities in population health status and care provision.

Restriction: Graduate students only.

PUBHLTH 251. Models of Practice and Intervention at the Community Level. 4 Units.

Examines and critiques current models, frameworks, theories for.

Prerequisite: CHC/LAT 200A or PUBHLTH 246. CHC/LAT 200A with a grade of B- or better. PUBHLTH 246 with a grade of B- or better

Same as CHC/LAT 251.

Restriction: Graduate students only.

PUBHLTH 253. Introduction to Community Health and Health Equity. 4 Units.

Explores community health roles, applications, and impacts in public health practice. Introduces community organizing, health advocacy, interventions, and strategies for addressing health inequities.

Restriction: Graduate students only.

PUBHLTH 264. Introduction to Environmental Health Science. 4 Units.

Explores environmental health's role in disease prevention. Studies human-environment interaction, focusing on chemical, physical, and biological agents in community and occupational settings. Covers climate change, environmental justice, children's health, exposure assessment, and policy for public health improvement.

Same as EPIDEM 264, EHS 264.

Restriction: Graduate students only. Environ Health Sci and Policy Majors only. Environmental Health Sciences Majors only. Epidemiology Majors only. Public Health Majors only.

PUBHLTH 269. Air Pollution, Climate, and Health. 4 Units.

Emission of air pollutants into the atmosphere, physical and meteorological processes that affect transport, and influence on global warming. Concepts of how and where people are most exposed, and how exposures and health effects differ in developed and developing regions.

Same as EPIDEM 269, EHS 269.

PUBHLTH 272. Health Psychology. 4 Units.

Focus on theory and research in health psychology as applied to major acute, chronic, and occupational health problems. Adopting the biopsychosocial model of health, emphasis is on understanding and influencing how biology, behavior, and the environment influence health and illness.

Same as EHS 294.

Restriction: Graduate students only.

PUBHLTH 275. Environmental Modeling and Risk Management. 4 Units.

Learn general principles and basic mathematical methods for environmental modeling and human health risk assessment, including compartmental and advection-dispersion models for contaminants in air and water, uptake by plants and animals, exposure, assessment, dose-response modeling, risk management, and risk perception.

Prerequisite: MATH 2A and STATS 7

Same as EHS 275.

Restriction: Graduate students only.

Concurrent with PUBHLTH 175.

PUBHLTH 277A. Target Organ Toxicology I. 4 Units.

Outlines vulnerability of selected organ systems to environmental and occupational chemicals. Reviews molecular aspects of toxicological damage. Topics include molecular toxicology and the following organ systems: nervous, cardiovascular, respiratory, dermal, and skeletal embryology.

Same as EHS 206A.

Restriction: Graduate students only.

PUBHLTH 277B. Target Organ Toxicology II. 4 Units.

Analyzes mechanistic responses in animals and humans to environmental and occupational chemicals and radiation, focusing on organ system physiology. Topics specifically covered include reproductive, endocrine, developmental, kidney, liver, pancreas, vascular, immune toxicology, radiation, and chemical carcinogenesis.

Prerequisite: PUBHLTH 277A or EHS 206A. PUBHLTH 277A with a grade of B- or better. EHS 206A with a grade of B- or better

Same as EHS 206B.

Restriction: Graduate students only.

PUBHLTH 278. Industrial Toxicology. 4 Units.

Analysis of responsibilities toxicologists have in industry, including product safety, generating material safety, data sheets, animal testing, ecotoxicological testing, risk/hazard communication, and assisting industrial hygienists and occupational physicians; emphasis on interdisciplinary nature of industrial toxicology and communication skills.

Prerequisite: PUBHLTH 277B or EHS 206B. PUBHLTH 277B with a grade of B- or better. EHS 206B with a grade of B- or better

Same as EHS 220.

PUBHLTH 279. Special Topics in Environmental & Occupational Health. 4 Units.

Current research in environmental and occupational health. Topics vary from quarter to quarter.

Repeatability: May be repeated for credit unlimited times.

Restriction: Graduate students only.

PUBHLTH 280. Global Burden of Disease. 4 Units.

Introduces composite measures of disease burden, including Disability Adjusted Life Years and their use in prioritizing disease burden at local, regional, and global levels. Focuses on WHO's landmark assessments and introduces DISMOD software for specific analyses.

Restriction: Graduate students only.

PUBHLTH 281. Infectious Disease Epidemiology. 4 Units.

Covers concepts and methods of infectious disease epidemiology and case studies of various infectious diseases. Includes surveillance, outbreak investigation, emerging pathogens, ecological and molecular epidemiology.

Restriction: Graduate students only.

PUBHLTH 282. Climate Change and Global Health. 4 Units.

Explore major topics in climate change and global health, analyzing micro- and macro-level impacts. Covers infectious and non-communicable diseases, demographic aspects, and interventions. Gain the ability to propose public health solutions for climate-related health challenges.

Restriction: Graduate students only. Environmental Health Sciences Majors only. Epidemiology Majors only. Public Health Majors only.

PUBHLTH 283. Geographic Information Systems for Public Health. 4 Units.

Engage extensively with GIS software, combining lectures and hands-on tutorials. Cover mapping basics, projections, geocoding, and toolbars. Apply GIS to public health data for practical understanding of its applications.

Prerequisite: PUBH 206. PUBH 206 with a grade of B- or better

Restriction: Graduate students only.

Concurrent with PUBHLTH 190.

PUBHLTH 286. Advanced Geographic Information Systems and Spatial Epidemiology. 4 Units.

Explore GIS software extensively, with lectures followed by hands-on tutorials. Topics include rasters, groundwater modeling, spatial statistics, and R programming. Analyze spatial epidemiology using public health data, with weekly assignments and a class project.

Prerequisite: PUBHLTH 283. PUBHLTH 283 with a grade of B- or better

Restriction: Graduate students only.

PUBHLTH 287. Qualitative Research Methods in Public Health. 4 Units.

Introduction to qualitative research methods. Covers epistemology, the range of qualitative data, developing research questions appropriate for qualitative data analysis, fieldwork, data collection, analysis, and report writing. Students engage in fieldwork.

Restriction: Graduate students only.

PUBHLTH 289. Special Topics in Global Health and Disease Prevention. 4 Units.

Current research in global health and disease prevention. Topics vary from quarter to quarter.

Repeatability: Unlimited as topics vary.

Restriction: Graduate students only.

PUBHLTH 290. Special Topics in Public Health. 4 Units.

Studies in selected areas of public health. Topics addressed vary each quarter.

Repeatability: Unlimited as topics vary.

Restriction: Graduate students only.

PUBHLTH 291A. Seminar: Advances and Challenges in Public Health. 2 Units.

Forum for exploring recent advances and challenges in all disciplines of public health research and practice. Features case studies exemplifying the integration of core competencies with cross-cutting interdisciplinary themes of public health.

Grading Option: Satisfactory/unsatisfactory only.

Repeatability: May be repeated for credit unlimited times.

Restriction: Graduate students only.

Concurrent with PUBHLTH 191A.

PUBHLTH 291B. Seminar: Advances and Challenges in Public Health. 2 Units.

Forum for exploring recent advances and challenges in all disciplines of public health research and practice. Features case studies exemplifying the integration of core competencies with cross-cutting interdisciplinary themes of public health.

Grading Option: Satisfactory/unsatisfactory only.

Repeatability: May be repeated for credit unlimited times.

Restriction: Graduate students only.

Concurrent with PUBHLTH 191B.

PUBHLTH 291C. Seminar: Advances and Challenges in Public Health. 2 Units.

Forum for exploring recent advances and challenges in all disciplines of public health research and practice. Features case studies exemplifying the integration of core competencies with cross-cutting interdisciplinary themes of public health.

Grading Option: Satisfactory/unsatisfactory only.

Repeatability: May be repeated for credit unlimited times.

Restriction: Graduate students only.

Concurrent with PUBHLTH 191C.

PUBHLTH 292. Ethics and Responsible Conduct of Research in Public Health. 4 Units.

Ethical dimensions of public health research, practice, and policy: ethical principles and frameworks, moral challenges in public health, research ethics, oversight of public health research, structural racism and health inequities, ethical issues in cross-cultural research, research misconduct, whistleblowing.

Restriction: Graduate students only.

Concurrent with PUBHLTH 193.

PUBHLTH 293. Foundations of Clinical and Translational Science. 4 Units.

Introduction to clinical research design, implementation, and translational science from lab to community. Foundation of clinical research design, approaches to accelerate therapeutic discoveries into healthcare practices, comparison of necessities and impediments to clinical research with transformative potential of translational science.

Restriction: Graduate students only.

PUBHLTH 294. Research Communication in Public Health. 4 Units.

Skills for academic writing: focus on peer-reviewed journal articles, writing strategies, effective dissemination to academic/non-academic audiences, and career-related topics for graduate students in health-related fields.

Restriction: Graduate students only.

PUBHLTH 295. Graduate Practicum and Culminating Experience in Public Health. 8 Units.

Provides opportunities for hands-on experience for graduate students at agencies or organizations engaged in public health practice. Students are matched with placement sites based on academic preparation and students' career goals. The practicum report is integrated into the culminating experience.

Prerequisite: PUBHLTH 200 and PUBHLTH 244 and PUBHLTH 222 and PUBHLTH 264 and PUBHLTH 207A. PUBHLTH 200 with a grade of B or better. PUBHLTH 244 with a grade of B or better. PUBHLTH 222 with a grade of B or better. PUBHLTH 264 with a grade of B or better. PUBHLTH 207A with a grade of B or better

Grading Option: Satisfactory/unsatisfactory only.

Restriction: Graduate students only. Public Health Majors only.

PUBHLTH 296. Doctoral Dissertation Research and Writing. 1-12 Units.

Dissertation research with Public Health faculty.

Prerequisite: Advancement to candidacy.

Grading Option: Satisfactory/unsatisfactory only.

Repeatability: May be taken for credit for 12 units.

Restriction: Graduate students only. Public Health Majors only.

PUBHLTH 297. Research Design and Proposal Writing. 4 Units.

Evaluate strengths of research findings based on methods used by researchers to develop research proposals. Components such as collaborative agreements, guidelines for proposal writing, budgeting, peer-review process, and transitioning from proposal to research project implementation are addressed.

Restriction: Graduate students only. Public Health Majors only. College of Health Sciences students only. Program in Public Health students only. Doctor of Philosophy Degree students only.

PUBHLTH 298. Directed Studies in Public Health. 2-8 Units.

Directed study with Public Health faculty.

Repeatability: May be repeated for credit unlimited times.

Restriction: Graduate students only.

PUBHLTH 299. Independent Study in Public Health . 2-8 Units.

Independent research with Public Health faculty.

Repeatability: May be repeated for credit unlimited times.

Restriction: Graduate students only.

PUBHLTH 399. University Teaching. 2-4 Units.

Limited to teaching assistants.

Grading Option: Satisfactory/unsatisfactory only.

Repeatability: May be repeated for credit unlimited times.