Public Health (PUBHLTH)

Courses

PUBHLTH 1. Principles of Public Health. 4 Units.
Introduces the major concepts and principles of public health and the determinants of health status in communities. Emphasizes the ecological model that focuses on the linkages and relationships among multiple natural and social determinants affecting health. Course may be offered online.

Restriction: Public Health Sciences, Public Health Policy, and Nursing Science majors have first consideration for enrollment.

PUBHLTH 2. Case Studies in Public Health Practice. 4 Units.
Presents case studies in various themes of public health practice to demonstrate how the principles of public health were established and continue to evolve.

Prerequisite: PUBHLTH 1.
Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 7. Introduction to Public Health Statistics. 4 Units.
Introduces the development and application of statistical reasoning and methods in addressing, analyzing, and solving problems in public health, health care, and biomedical, clinical, and population-based research and practice.

Overlaps with SOCECOL 13, STATS 7, STATS 8, MGMT 7.
Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

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PUBHLTH 10. Special Topics in Public Health. 2-4 Units.
Introduction to emerging topics in public health. Topics addressed vary each quarter. Course may be offered online.

Repeatability: Unlimited as topics vary.

PUBHLTH 30. Human Environments. 4 Units.
Study of natural and physical components of earth's environmental problems due to human activities. Topics include global air, water, soil, biodiversity, rainforests, energy, demographics, agriculture, and urbanization. Theme is sustainability. Integrated into the science are social, legal, and economic considerations.

(II)

PUBHLTH 60. Environmental Quality and Health. 4 Units.
A survey of how pollution in the natural and physical environment affects human health. Topics are toxicology, epidemiology, risk assessment, water, food, air, radiation, pesticides, solid and hazardous waste. Included are interdisciplinary elements of environmental regulations, environmental education, consumer protection.

(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.
Natural disasters are natural processes that adversely affect humans. By examining these processes students develop a basic understanding of Earth's physical environment. Topics include: tectonics, earthquakes, volcanoes, landslides, severe weather, flooding, climate change, mass extinctions and impacts with space objects.

(II)
PUBHLTH 91. Disparities in Health Care. 2-8 Units.
Student participatory course practicing initiation, planning, and coordination of various speakers on the subject of Disparities in Health Care.

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.

Restriction: Public Health Sciences and 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: (PSY BEH 9 or PSY BEH 11C or PSYCH 7A or PSYCH 9C) and SOCECOL 10 and SOCECOL 13.

Same as PSY BEH 183S.

Restriction: Psychology and Social Behavior, Social Ecology, Public Health Sciences, and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 103. Introduction to Genetic Epidemiology. 4 Units.
Examines the methodological approaches for studying the importance of genetic factors and gene-environment interactions in human diseases. Topics include: genetic and epidemiological concepts, population studies, family studies, and applications in medicine and public health.

Prerequisite: PUBHLTH 101.

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

PUBHLTH 104. Analytic and Applied Epidemiology. 4 Units.
Covers basic concepts of analytic epidemiology and applications, including experimental and observational designs, prevention, screening, treatment and rehabilitation, infectious disease, and injury prevention.

Prerequisite: PUBHLTH 101.

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

PUBHLTH 105. Introduction to Medical 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.

Same as IN4MATX 171.

Restriction: Upper-division students only.

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 1.
Restriction: Upper-division students only. Public Health Policy and Public Health Sciences majors have first consideration for enrollment.

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 and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 121. Introduction to Complementary and Alternative Medicine. 4 Units.
Examines health and disease in contemporary American culture/society with definitions, models, and practices of what has come to be known as "orthodox" or "conventional" medicine. Selected "alternative" or "complementary" modes of promoting health and well-being including homeopathy, herbology, and chiropractic.
Restriction: Public Health Sciences and 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 PP&D 170.
Restriction: Urban Studies, Social Ecology, Public Health Sciences, and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 123. Public Issues in Biotechnology. 4 Units.
An assessment of developments in biotechnology potentially affecting various facets of human society, or warranting significant public debate. Covers the implications of genetic engineering and other biotechnological developments for public health, environment, agriculture, legislation, research ethics, public policy, and commerce.
Prerequisite: PUBHLTH 1 and PUBHLTH 2.
Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 124. Environmental and Public Health Policy. 4 Units.
Examines factors involved in shaping public health and environmental policy. Topics include the role of science in public health policy, the function of governmental regulatory agencies, citizen participation, and economic and sociopolitical aspects of controlling infectious diseases and regulating carcinogens.
Restriction: Public Health Sciences and Public Health Policy 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 PP&D 112.
Restriction: Urban Studies, Social Ecology, Public Health Sciences, and Public Health Policy majors have first consideration for enrollment.

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. Course may be offered online.

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 only. Public Health Policy and Public Health Sciences majors have first consideration for enrollment.

PUBHLTH 134. Asian American Community Public Health. 4 Units.
Focuses on major issues and concepts of community health and their application to public health programs for Asian American populations. Analyzes individual, institutional, community, and policy factors that influence a person's health status within a larger environmental context.

Same as ASIANAM 134.

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 and 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: PSY BEH 9 or PSY BEH 11C or PSYCH 7A or PSYCH 9C.
Same as PSY BEH 141H.
Restriction: Public Health Sciences, Public Health Policy, and Psychology and Social Behavior majors have first consideration for enrollment.

PUBHLTH 142. The Human Pain Experience. 4 Units.
Examines the physiological and sociocultural correlates of human pain perception. Emphasis on laboratory and clinical methods of measuring acute and chronic pain; social influences on the experience and communication of pain; biopsychosocial approaches to pain control.

Prerequisite: (PSY BEH 9 or PSY BEH 11C or PSYCH 7A or PSYCH 9C) and any upper-division course from the Health or Pre-clinical Psychology areas.
Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 143. Social Ecology of Health Promotion. 4 Units.
Core themes of Social Ecology are examined as they apply to major areas of health promotion research and practice. Students attend lectures and work collaboratively on team projects conducted in university and community settings.

Same as SOCECOL 131.
Restriction: Public Health Sciences, Public Health Policy, and Social Ecology majors have first consideration for enrollment.

PUBHLTH 144. Health Behavior Theory. 4 Units.
Introduces theoretical perspectives from the social sciences to understand health behavior from the vantage point of individuals, their interpersonal contacts, communities, and ecological contexts. Application of theory to public health problems is a central focus.

Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.
PUBHLTH 146. Health Promotion Programs. 4 Units.
Examines ecological perspectives of health promotion programs and risk factors related to mortality/morbidity. Analyzes effectiveness of health promotion strategies and issues in the existing healthcare systems in light of sociocultural beliefs and economical/political conditions.
Prerequisite: PUBHLTH 1.
Restriction: Upper-division students only. Public Health Policy and 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 and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 148. Public Health Communication. 4 Units.
Theoretical underpinnings and practical applications of communication sciences in public health practice. Techniques of effective communication, including fear appeal and deterrence; social marketing; public-private partnerships; health service delivery; and outreach in rural and urban settings, and for international health strategies.
Prerequisite: PUBHLTH 1 and PUBHLTH 2.
Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 151. Environmental Psychology. 4 Units.
Impact of the physical environment on individual and group behavior. Three basic concerns examined: (a) environmental determinants of behavior at the individual and interpersonal level; (b) social planning and urban design; (c) methodological approaches to the study of environmental issues.
Prerequisite: SOCECOL E8 or SOCECOL 10 or PP&D 4.
Same as PSY BEH 171S, PP&D 151.
Restriction: Urban Studies, Social Ecology, Psychology and Social Behavior, Public Health Sciences, and Public Health Policy majors have first consideration for enrollment.

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 160. Environmental Pollution and Remediation. 4 Units.
The study of pollution—its identification, risks, and remediation. Analysis of sources of natural and anthropogenic environmental pollutants using ecological concepts, chemical fate and transport, engineering technologies, economics, and policy to provide understanding and solutions to these problems.
Restriction: Upper-division students only. Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 161. Environmental Geology. 4 Units.
Introduction to geologic principles and applications to environmental problems. Topics include: tectonic processes, earth materials, soils, river processes, groundwater, the coastal environment, slope failures, seismic hazards, mineral resources, and land-use evaluation based on geologic conditions. Examples from case studies.
Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 162. Human Ecology of Health. 4 Units.
Many human health problems are directly associated with ethnicity, sex, and age. Integrates the science of these issues with anthropology, geography, economics to understand the relationship, management, treatment. Involves lectures and discussions to probe these factors.
Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 163. Introduction to Environmental Health Science. 4 Units.
Focuses on processes of exposure to environmental toxins/agents and their impact to human health and the environment. Media transport, exposure assessment, susceptibility, behavior, and health effect of several toxins are discussed.
Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.
PUBHLTH 164. Toxic Chemicals in the Environment. 4 Units.
Explores the sources, transformation, and sinks of toxic chemicals in the environment, and their effects on public health. Covers regulatory issues and design-for-the-environment initiatives to reduce or eliminate the adverse effects of toxic chemicals.

Prerequisite: PUBHLTH 1 and PUBHLTH 2.

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

PUBHLTH 164L. Toxic Chemicals in the Environment Laboratory. 4 Units.
Covers field sampling techniques and laboratory analysis methods for assessing the occurrence and effects of toxic chemicals in environmental compartments, including water, soils, sediments, air, and food resources.

Prerequisite: PUBHLTH 1 and PUBHLTH 2. Prerequisite or corequisite: PUBHLTH 164.

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

PUBHLTH 165. Issues in Potable Water Reuse. 4 Units.
Provides an in-depth study of the treatment and subsequent reuse of wastewater for drinking. Analyzes existing regulations for both drinking water and reuse situations, microbial and chemical contaminants, health concerns and risk assessment.

Prerequisite: SOCECOL E8.

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

PUBHLTH 166. Geographic Information Systems. 4 Units.
Basic geographic, cartographic, and GIS concepts including computer representation of physical, political, statistical, and social aspects of space using vector and grid-based maps. Experience with extensive geographic base map files and databases through use of GIS software (ArcView 3.x).

Same as CRM/LAW C148.

Restriction: Public Health Sciences, Public Health Policy, and Criminology, Law and Society majors have first consideration for enrollment.

PUBHLTH 167. Air Pollution, Climate, and Health. 4 Units.
Introduction to how air pollutants are emitted into the atmosphere, how people are most exposed to air pollutants in developed and developing areas, physical and meteorological processes that affect transport, and the influence of air pollutants on global warming.

Restriction: Public Health Sciences and Public Health Policy 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.

PUBHLTH 169. Human Exposure Modeling. 4 Units.
Indirect methods in estimating human exposure to environmental agents. Topics include air, noise, dermal and ingestion exposure assessment, time-activity and micro-environmental approach, uncertainty and variability analysis, and the use of GIS and remote sensing in exposure assessment.

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

PUBHLTH 170. Introduction to Global Health. 4 Units.
Provides a foundational interdisciplinary understanding of global health issues and their importance to various societal goals, including poverty reduction, economic productivity, and peace promotion. Covers major communicable and non-communicable diseases and demographic patterns of disease burden.

Prerequisite: PUBHLTH 1.

PUBHLTH 171. Human Exposure to Environmental Contaminants. 4 Units.
Introduces origins of human's realization that chemicals in the environment may adversely affect health. Introduces the theory and principles of exposure assessment. Covers estimation of exposure, variability of measures, the way exposure assessment is incorporated into the risk-assessment paradigm.
PUBHLTH 173. Health and Global Environmental Change. 4 Units.
Overview of scientific underpinnings of global environmental change and human health consequences. Provides an understanding of the fundamental dependency of human health on global environmental integrity. Encourages disciplinary cross-fertilization through interaction of students in environmental, health, and policy sciences.

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

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

PUBHLTH 175. Environmental Modeling and Risk Assessment. 4 Units.
Surveys the general principles, basic mathematical methods, and practices of environmental modeling and human health risk assessment. Topics include advection-dispersion models, risk management, and risk perception. Students conduct an original risk assessment as a final group project.

Prerequisite: MATH 2A and STATS 7.

Concurrent with PUBHLTH 275 and TOX 275.

PUBHLTH 176. War and Public Health. 4 Units.
Explores how war impacts public health both globally and domestically in the United States. Focus on the link between war and the burden that it ultimately places on physical, mental, environmental, and societal health as well as on health systems.

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.
Examines the distribution of infectious disease and the health and disease risk among human populations. Introduces basic methods for infectious disease epidemiology. Case studies of important diseases, including HIV and malaria, are conducted.

Prerequisite: PUBHLTH 1.

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 and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 190. Geographical Information Systems for Public Health. 4 Units.
Provides a broad introduction to the use of Geographic Information Systems software to carry out projects for visualizing and analyzing spatial data to address significant issues of health care and policy-planning.

Overlaps with PUBHLTH 166, CRM/LAW C148.

Concurrent with PUBHLTH 283.

PUBHLTH 191A. 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 291A.

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.

Concurrent with PUBHLTH 291C.

PUBHLTH H192A. Public Health Honors Seminar and Thesis I. 4 Units.
Provides an opportunity for selected students to pursue advanced work in research and earn Public Health Honors. Students will conduct their honors research project with faculty through lectures, guest speakers, creating timelines and assignments.

Corequisite: PUBHLTH 199.

Repeatability: May be repeated for credit unlimited times.

Restriction: Public Health Policy and Public Health Sciences graduate students only.

PUBHLTH H192B. Public Health Honors Seminar and Thesis II. 1 Unit.
Students undertake research and summarize results while preparing research grants and practicing oral presentations.

Corequisite: PUBHLTH 199.
Prerequisite: PUBHLTH H192A.

Repeatability: May be repeated for credit unlimited times.

Restriction: Public Health Policy and Public Health Sciences graduate students only.

PUBHLTH H192C. Public Health Honors Seminar and Thesis III. 1 Unit.
Students complete the final writeup of their research project, present their research at conferences/seminars, and write an academic manuscript.

Corequisite: PUBHLTH 199.
Prerequisite: PUBHLTH H192B.

Repeatability: May be repeated for credit unlimited times.

Restriction: Public Health Policy and Public Health sciences graduate students only.

PUBHLTH 193. Ethics and Responsible Conduct of Research in Public Health. 4 Units.
Issues of scientific integrity and satisfies the requirements for training in public health ethics. Includes guidelines for responsible conduct of research, federal and international codes, administrative review and approval, conflict of interest, and privacy and safety of research participants.

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

Concurrent with PUBHLTH 292.

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: 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 194A. 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 and Public Health Policy majors only.

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PUBHLTH 197. Field Studies in Public Health. 2-12 Units.
For students who may either accompany faculty members on field trips or engage in post-practicum work at a field agency.

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.
Student participation in a series of research-related activities performed in an individual or small-group setting under the guidance of a faculty advisor.

Prerequisite: PUBHLTH 1.

Grading Option: Pass/no pass only.

Repeatability: May be repeated for credit unlimited times.

PUBHLTH 199. Undergraduate Research. 1-4 Units.
Original research with Public Health faculty. Attendance at regular research group meetings is also generally expected, and a quarterly written report is required. Strongly recommended for students considering research careers and/or graduate degree programs.

Repeatability: May be repeated for credit unlimited times.

Restriction: Upper-division students only.

PUBHLTH 200. Foundations of Public Health. 4 Units.
Presents the overarching framework, principles, and core responsibilities of public health research and practice from a multidisciplinary perspective. Provides necessary foundation for further studies toward advanced cross-cutting approaches essential for public health practice.

Restriction: Graduate students only.

PUBHLTH 203. Epidemiology. 4 Units.
Presents descriptive and experimental approaches to the recognition of the causal association of disease in the general population, as these approaches apply to populations using different student designs and models free from the literature.

Same as EPIDEM 203.

Restriction: Graduate students only.

PUBHLTH 204. Biostatistics. 4 Units.
Designed to help students develop an appreciation for statistician's view of the research process, emphasizing biomedical research. Instills an understanding of how statistical models are used to yield insights about data that form evidence-based understanding of the world around us.

Same as EPIDEM 204.

Restriction: Graduate students only.
PUBHLTH 205. 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: PUBHLTH 101B or STATS 111 or STATS 211.

Same as EPIDEM 217.
Concurrent with PUBHLTH 119.

PUBHLTH 206. Graduate Epidemiology in Public Health. 4 Units.
Presents descriptive and experimental approaches to the recognition of the causal association of disease in the general populations, as these approaches apply to populations using different student designs and models from the literature.

Restriction: Graduate students only.

PUBHLTH 207. Public Health Statistics. 4 Units.
Surveys statistical methods for public health. Topics include descriptive statistics, probability models, likelihood functions, estimation, and hypothesis testing for categorical and continuous data. Student learn to use statistical software to perform epidemiologic data analysis.

Prerequisite: PUBHLTH 203 and MATH 2A.
Restriction: Graduate students only.

PUBHLTH 208. Advances in Social Epidemiology. 4 Units.
Advances understanding of social distribution and social determinants of disease through multiple risk factor models and mechanisms that emphasize developmental and socio-environmental risk factors on mental and physical health across the life span.

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. Cancer Epidemic and Prevention. 4 Units.
Explores the global burden of various cancers, including geographical and societal distribution. Includes causes, diagnosis, and interactions among genetic, environmental, and behavioral risk factors. Covers major cancer preventative strategies.

Prerequisite: PUBHLTH 203.
Restriction: Graduate students only.

PUBHLTH 211. Public Health Genomics. 4 Units.
Explores the role of genetic predisposition in the occurrence of the human diseases with emphasis on population screening and prevention of disease. Includes interactions between genetic factors and environmental situations, policies, and ethics of population genomics.

Prerequisite: PUBHLTH 203.
Restriction: Graduate students only.

PUBHLTH 212. Intermediate Epidemiology. 4 Units.
Learn to design and conduct epidemiologic studies using common designs. Determine why bias and measurement error arise in observational studies, and how they influence effect estimates. Perform and interpret epidemiologic data analyses using statistical software.

Corequisite: PUBHLTH 207.
Prerequisite: PUBHLTH 203.
Restriction: Graduate students only.

PUBHLTH 213. International Epidemiology. 4 Units.
Explores methodological approaches in the literature on international trials and requires formulation of proposals to answer public health questions of interest in a developing country setting. Students develop case study aims, ideal teams, and budget in an international context.

Restriction: Graduate students only.
PUBHLTH 214. Surveillance Systems. 4 Units.
Surveillance as a fundamental element of the practice of public health is examined in terms of the application and evaluation of monitoring systems. Topics include surveillance of infectious and chronic diseases, environmental constituents, and other indicators of population health.

Prerequisite: PUBHLTH 206.
Restriction: Graduate students only.

PUBHLTH 219. Special Topics in Biostatistics, Epidemiology, and Health Informatics. 4 Units.
Current research in biostatistics, epidemiology, and health informatics. Topics vary from quarter to quarter.

Repeatability: Unlimited as topics vary.
Restriction: Graduate students only.

PUBHLTH 220. Public Health Cost-Effectiveness Analysis. 4 Units.
Examines using cost-effectiveness information to allocate limited resources to maximize health benefits to a population; defining and measuring cost, survival and health-related quality of life; and how to calculate cost-effectiveness using decision trees and Markov simulation models.

Same as PP&D 226.
Restriction: Graduate students only.

PUBHLTH 221. Health Promotion and Planning. 4 Units.
Focuses on health and health care in the United States, but discussion of global health issues and/or international comparisons will be made whenever possible. Considers both the social and economic aspects of health and disease.

Same as PP&D 241.
Restriction: Graduate students only.

PUBHLTH 222. 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 PP&D 243.
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 224. Public Health Leadership. 4 Units.
Integrates theory and practice of public health leadership through lectures on global health leadership, case studies on leadership issues, and course assignments that include assessment of leadership traits, and development of individual career mission, vision, and values statements.

Restriction: Graduate students only.

PUBHLTH 239. Special Topics in Health Policy and Management. 4 Units.
Current research in health policy and management. Topics vary from quarter to quarter.

Repeatability: May be repeated for credit unlimited times.
Restriction: Graduate students only.

PUBHLTH 240. Topics in Environmental Health Promotion and Education. 4 Units.
Focuses on design of intervention strategies dependent on the environmental agent, exposure to assessment, SES, health effects, stakeholders, and support base. Programmatic design includes media selection, communication/education, and pre/post surveys. Analysis of transborder and local environmental health promotion programs.

Restriction: Graduate students only.
PUBHLTH 241. Environmental Policy and Global Sustainability. 4 Units.
Seminar organized around four transcendent questions: does the world value sustainability, what challenges must be met to move toward it, what are the roots of inequality, and is capitalism compatible with sustainability.

Same as SOCECOL 250.

Restriction: Graduate students only.

PUBHLTH 242. Theories of Health Communication. 4 Units.
Explores the concepts, constructs, and theories of communication in health and risk contexts. Examines interpersonal, family, organizational, and mediated communicative processes about health care and conditions from a global perspective.

Restriction: Graduate students only.

PUBHLTH 244. Health Behavior Theory. 4 Units.
Introduces the field of Health Behavior and then segues into major theoretical perspectives. Focus on health behavior change from the vantage point of individual health behavior and theoretical abstraction. Explores how to relate theory to behavior-change intervention programs.

Restriction: Graduate students only.

PUBHLTH 245. Health Promotion Planning. 4 Units.
Introduces strategic planning integral to intervention planning in public health practice and research, emphasizing the fundamental domains of social and behavioral health science and practices. Students develop an intervention plan for a specific health problem, health behavior, and target population.

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.
Introduces methods, tools, and procedures for systematic investigation of the effectiveness of programs in health and social services for disease intervention, prevention, and health promotion. Includes development of program evaluation plans, logic models, contextual frameworks, study designs, and data analyses.

Restriction: Graduate students only.

PUBHLTH 248. Fundamentals of Maternal and Child Health - Programs, Problems, and Policy. 4 Units.
Overview of issues facing women, children, and families from a public health perspective. Discusses role of socio-economic, political, biological, environmental factors on population health. Studies historical foundations and current factors impacting Maternal Child Health programs and legislation in the US.

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 259. Special Topics in Social and Behavioral Health Sciences. 4 Units.
Current research in Social and Behavioral Health Sciences. Topics vary from quarter to quarter.

Repeatability: Unlimited as topics vary.

Restriction: Graduate students only.

PUBHLTH 261. Environmental Hydrology. 4 Units.
Provides an overview of the occurrence, distribution, and movement of water in the environment. Quantitative methods are introduced for analyzing hydrologic processes. Human impacts on water distribution and quality are considered.

Restriction: Graduate students only.
PUBHLTH 262. Earthquakes and Seismic Hazard. 4 Units.
Provides an overview of earthquakes and introduction to seismic hazard. Topics include characteristics and effects of earthquakes, sources of earthquakes, seismic hazard assessment, introduction to earthquake loss estimation and mitigation. California examples are emphasized.

Restriction: Graduate students only.

PUBHLTH 263. Seminar in Paleoseismology. 4 Units.
Provides an introduction to paleoseismology and its applications. Topics include data collection methods, data analysis, earthquakes in different tectonic environments, and applications to seismic hazard assessment and fault characterization.

Restriction: Graduate students only.

PUBHLTH 264. Introduction to Environmental Health Science. 4 Units.
Convergence of agents (chemical, physical, biological or psychosocial) in environment can emerge as diseases influenced by social, political, and economic factors allowing them to become rooted in society. How these agents from various spheres come together and impact human health.

Same as EPIDEM 264, TOX 264.

Restriction: Graduate students only.

PUBHLTH 265. Advanced Environmental Health Science. 4 Units.
Explores the complex relationships among exposure processes and adverse health effects of environmental toxins focusing on specific chemicals, sources, transport media, exposure pathways, and human behaviors. Techniques of environmental sampling for exposure assessment are discussed.

Same as EPIDEM 265.

Restriction: Graduate students 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, TOX 269.

PUBHLTH 270. Human Exposure to Environmental Contaminants. 4 Units.
Introduces founders of conceptual thought that environmental contaminants can impact health. Theory and principles of exposure assessment, the continuum from emissions of a containment into the environment to evidence of health effects in a population.

Same as EPIDEM 270, TOX 270.

PUBHLTH 271. Health Impacts of Environmental Change. 4 Units.
Seminar on health impacts of environmental change at various scales of analysis. Uses numerical models such as "MIASMA" and "TARGETS" to analyze alternative outcomes of environmental-change scenarios. Presentations from experts are featured.

Restriction: Graduate students only.

PUBHLTH 272. Environmental Health and Quality. 4 Units.
Concepts and principles of environmental health. Focuses on industrial hygiene, water and air quality, noise pollution, and environmental carcinogens. Discusses theory and implementation practices through review of legislative measures and enforcement procedures. Examines social and biological interactions surrounding each topic.

Restriction: Graduate students only.

PUBHLTH 273. Environmental Health, Science, and Policy. 2 Units.
Topics relevant to the field of environmental health, science, and policy are covered in depth. Included are: hazardous and biological pollutants in soil, water, air; remediation technologies; water conflicts; and regulations pertaining to contaminants.

Restriction: Graduate students only
PUBHLTH 275. Environmental Modeling and Risk Management. 4 Units.
Surveys the general principles, basic mathematical methods, and practices of environmental modeling and human health risk assessment. Topics include advection-dispersion models, risk management, and risk perception. Students conduct an original risk assessment as a final group project.

Prerequisite: MATH 2A and STATS 7.

Same as TOX 275.

Restriction: Graduate students only.

Concurrent with PUBHLTH 175.

PUBHLTH 276. Toxic Chemicals in Environment. 4 Units.
Industrial ecology of toxicants and their impacts on environmental quality and human health. Explores theoretical basis of toxicity thresholds and regulatory issues. Uses classic and contemporary research articles to understand the legacy of traditional toxicants, and to identify emerging threats.

Same as EPIDEM 244.

Restriction: Grad students only or Consent of instructor to enroll

PUBHLTH 277A. Target Organ Toxicology I. 6 Units.
Analysis of responses occurring in 12 organ systems of humans exposed to environmental chemicals at toxic levels; distinctive cellular and tissue structure and physiological function; toxicological responses discussed in terms of phenomena, mechanisms of action, and methods of study.

Same as TOX 206A.

PUBHLTH 277B. Target Organ Toxicology II. 6 Units.
Analysis of responses occurring in 12 organ systems of humans exposed to environmental chemicals at toxic levels; distinctive cellular and tissue structure and physiological function; toxicological responses discussed in terms of phenomena, mechanisms of action, and methods of study.

Prerequisite: PUBHLTH 277A or TOX 206A.

Same as TOX 206B.

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 277A or TOX 206A) and (PUBHLTH 277B or TOX 206B).

Same as TOX 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: Grad 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.
Geographical distribution of infectious diseases and the health and disease risk in diverse human populations. Introduces basic methods for infectious disease epidemiology and case studies of important diseases. Includes surveillance, outbreak investigation, emerging pathogens, traditional and molecular epidemiology.

Restriction: Graduate students only.
PUBHLTH 282. Advances in Global Health. 4 Units.
Critical appraisal of advances in taming the global burden of disease. The underlying sectoral determinates of health, and health systems development through multiple frames, including economics, infectious and chronic disease, nutrition, injury, culture, social/political organization, humanitarian emergencies, and international organizations.

Restriction: Graduate students only.

PUBHLTH 283. Geographical Information Systems for Public Health. 4 Units.
Provides a broad introduction to the use of Geographic Information Systems software to carry out projects for visualizing and analyzing spatial data to address significant issues of health care and policy-planning.

Restriction: Graduate students only.

Concurrent with PUBHLTH 190.

PUBHLTH 284. Graduate Field Studies. 2-12 Units.
Field studies with Public Health faculty.

Grading Option: Satisfactory/unsatisfactory only.

Repeatability: May be taken for credit for 12 units.

Restriction: Graduate students only.

PUBHLTH 285. Global Health Law and Diplomacy. 4 Units.
Extends theory and practice of law and diplomacy from the scope of health to trade, intellectual property, national security, human rights, and environmental protection. Focuses on negotiations that shape and manage the global policy environment for health.

Restriction: Graduate students only.

PUBHLTH 287. Qualitative Research Methods in Public Health. 4 Units.
General introduction to qualitative research methods for investigating public health questions at various scales from community level to global populations. Emphasizes systematic approaches to the collection, analysis, interpretation of qualitative data.

Restriction: Graduate students only.

PUBHLTH 288. Research Proposal Writing in Global Health. 4 Units.
Overview of financial support for research in global health and disease prevention. Collaborative agreements, guidelines for proposal writing, team building, budgeting, peer-review process, and transitioning from proposal to research project implementation.

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.

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.
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.
Restriction: Graduate students only.
Concurrent with PUBHLTH 191C.

PUBHLTH 292. Ethics and Responsible Conduct of Research in Public Health. 4 Units.
Issues of scientific integrity and satisfies the requirements for training in public health ethics. Includes guidelines for responsible conduct of research, federal and international codes, administrative review and approval, conflict of interest, and privacy and safety of research participants.

Restriction: Graduate students only.

PUBHLTH 292. Ethics and Responsible Conduct of Research in Public Health. 4 Units.
Introduces rationale and imperative for clinical translational science and various approaches being developed to speed-up discoveries and their transformation into health care practices. Compares and contrasts current impediments to clinical research with the potential and transformative power of translational science.

Restriction: Graduate students only.

PUBHLTH 294. Research Communication in Public Health. 4 Units.
Strategies for effective writing and oral presentation of research characteristics and results to various audiences. Includes exercises in writing for the public, for scholarly journals, and at conferences.

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 291.
Grading Option: Satisfactory/unsatisfactory only.
Restriction: Master of Public Health students 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.

PUBHLTH 297. Research Design. 4 Units.
Provides training in research design and methods. Students learn how to evaluate the strength of research findings based on the methods used by a researcher and learn to use lessons from the course to develop a research proposal.

Same as PP&D 297.
Restriction: Graduate students only.
PUBHLTH 298. Directed Studies in Public Health. 2-4 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.