UC Berkeley Global Health Courses/Electives
Academic Year 2017-18*
Fall Courses

*These courses may be taken to fulfill requirements of the SPH Global Health Specialty. Please find details at the UC Berkeley Course Catalog.

School of Public Health

Global Health Economics (PBHLTH 226D 001, Scheffler, 1 unit)
This class is a survey of different health care systems in western and eastern Europe, the former Soviet Union, Canada, Japan, Taiwan, and China. Other countries will be added to meet the interests of students. The course examines the structure and financing of the health system in each country and assesses the effectiveness, efficacy, and equity of each systems. Students will make a presentation on a country's health system and write a paper.

Adolescent Health (PBHLTH 210B 001, Deardoff, 3 units)
This course is designed to provide an understanding of the epidemiology and etiology of critical health issues among adolescents, including complex contextual influences and individual processes related to this dynamic period of life. Each adolescent health outcome will be considered in light of developmental issues related to the pubertal transition and multilevel influences that contribute to adolescent health and well-being, including 1) biological, 2) cognitive, 3) behavioral, and 4) social-culture factors. The course will emphasize empirical evidence for the etiology of adolescent health problems, documented risk and protective factors, and content and timing of preventive intervention efforts to ameliorate risk.

Theories of Health and Social Behavior (PBHLTH 203A 001, Holmes, 3 units)
This course provides a survey of theoretical perspectives and their application in analyzing the behavioral, social, and cultural dimensions of community health problems. An emphasis is placed on critically examining the strengths and weaknesses of particular theories for understanding and addressing complex community health problems.

Health and Human Rights (PBHLTH 211 001, Stover, 3 units)
The course examines the origins of health and human rights concerns and outlines a conceptual basis for human rights among health professionals. It provides an overview of the epidemiology of human rights violations worldwide and an analysis of the psychology of abuse. The course considers the role of health professionals in (1) documenting the health and social consequences of human rights violations and war; (2) treating survivors of abuse; (3) addressing specific human rights concerns of women and children; (4) identifying the impact of health policy on human rights; and (5) participating in human rights education and advocacy. The course will also examine issues of universality of human rights and cultural relativism and the role of accountability for the past abuses in prevention.

Evaluation of Health and Social Programs (PBHLTH 218B 001, Deardoff, 4 units)
The study of concepts, methods, rationale, and uses of evaluation research as they apply to health and social programs.

International Maternal and Child Health (PBHLTH 212A 001, Prata, 2 units)
Assessment of health status of mothers, infants, and children on worldwide basis; special emphasis on problems, policies, and programs affecting MCH and family planning in developing countries.

Introduction to Environmental Health Sciences (PBHLTH 270 001, Balmes, 3 units)
This survey course covers the breadth of hazards to chemical, biological, and physical agents of concern to environmental health professionals.

Health Policy Advocacy (PBHLTH 220D 001, Snyder, 3 units)
A graduate seminar in practice-based means to advocate for health policy. This course focuses on data based strategies using persuasive written and oral communication skills necessary to preserve and/or improve the health status of populations.

Mass Communications in Public Health (PBHLTH 204A 001, Dorfman, 3 units)
Examines the role of mass communication in advancing public health goals. Reviews mass media theories in general, and theories of the news media in particular.

Molecular Parasitology (PBHLTH 265 001, Harris, 3 units)
Advanced course in the molecular aspects of parasite immunology, molecular biology, genetics, biochemistry, and genomics. For each parasite, the following areas will be covered: biology; disease spectrum; epidemiology; pathogenesis; immunology; and vaccine development.

**Public Health Immunology (PBHLTH 263 001, Stanley, 3 units)**
This course will be the principal immunology course for students in the field of public health.

**Infectious Diseases (PBHLTH W260 001, Riley/Swartzberg, 3 units)**
The purpose of this course is to provide students with knowledge and approach to understand key principles that apply to infectious diseases recognized to be of major public health importance in the USA and globally.

**Ethnic and Cultural Diversity in Health Status (PBHLTH W202 001, Johnson, 3 units)**
This course will examine ethnic and cultural differences in health status and behavior among historically marginalized communities in the United States, including African-Americans, Latinos, Asian-Americans, Native Americans, as well as sexual minorities and groups from non-Western societies.

**Family Planning, Population Change, and Health (PBHLTH 213A 001, Prata, 3 units)**
Course examines the determinants of family size and the role played by contraception, voluntary sterilization, and induced abortion in the transition to small families. It looks at the factors controlling access to fertility regulation in developed and developing countries.

**Foundations of Maternal and Child Health Policy, Practice and Science (PBHLTH 210 001, 3 units)**
This course will explore issues related to maternal, child, and adolescent health throughout the life course with a focus on the social determinants of health, health disparities, and social justice. Discussion will focus on current issues central to maternal and child health policy and practice; the history and organization of MCH health services in the US; and analyze the ways in which the political context in the US and internationally affects the health and well-being of families, including critical examination of the ways in which knowledge about an issue, an understanding of the social strategies to address that issue, and political will are all leveraged to influence the creation of MCH policy.

**Public Health Aspects of Maternal and Child Nutrition (PBHLTH 207A 001, Laraia, 2-3 units)**
Nutrition plays a vital role in human reproduction and child growth and development. This course provides an overview of the major nutritional issues faced by women of childbearing age, infants, children, and adolescents in the United States and around the world, with selected topics explored in greater depth.

**PH Nutrition Core Course: Critical Issues in Public Health Nutrition (PBHLTH 206 001, Fernald, 2 units)**
This course will introduce first-year public health nutrition and other MPH students to critical issues in public health nutrition, and provide them with critical thinking skills to analyze these issues using scientific literature.

**Environmental Determinants of Infectious Disease (PBHLTH 273 001, Remais, 3 units)**
The course takes a global perspective, examining the environmental phenomena that influence the transmission of infectious diseases.

**Healthy Cities (PBHLTH C233 001, Corburn, 3 units)**
Exploration of common origins of urban planning and public health, from why and how the fields separated and strategies to reconnect them, to addressing urban health inequities in the 21st century.

**Current Topics in Environmental Medicine (PBHLTH 269E 001, Seward, 2-3 units)**
Topics in environmental medicine will provide students with an overview of the health impacts, disease mechanisms, and public health controversies related to selected environmental exposures.

**Outbreak Investigations (PBHLTH W253 001, Reingold/Enanoria, 3 units)**
The purpose of this course is to provide students with an overview of outbreak investigations in public health. This course will teach students why and how clusters of illnesses/epidemics are investigated.

**Epidemiologic Methods I (PBHLTH W250 001, Colford/Benjamin-Chung, 3 units)**
This introductory graduate course presents the principles and methods of epidemiology, including descriptive and analytic approaches to assessing the distributions of health, disease, and injury in the population and factors that influence those distributions.

**Epidemiologic Methods I (PBHLTH 250A 001, McCoy, 3 units)**
Principles and methods of epidemiology: study design, selection, and definition of cases and controls; sampling, data collection, analysis, and inference.
Food and Nutrition Programs and Policies in Developing Countries (PBHLTH 206D 001, Fernald, 3 units)
This course will use a case-based approach to examine the ways in which governments in developing countries design and implement policies and programs that affect food production and access to safe, affordable, and nutritionally adequate diets.

Biostatistical Methods: Survival Analysis and Causality (PBHLTH C240B 001, Van Der Laan, 4 Units)
Analysis of survival time data using parametric and non-parametric models, hypothesis testing, and methods for analyzing censored (partially observed) data with covariates.

Intervention Trial Design (PBHLTH 252C 001, Colford, 3 units)
Students learn (through lectures and graded student presentations and projects) to design clinical and population-level field trials.

Advanced Topics in Causal Inference (PBHLTH 252E 001, Petersen, 3 units)
The course will be conducted as a seminar with readings and discussions on a range of more advanced topics.

Behavior and Policy Science in HIV Treatment and Prevention (PBHLTH 253D 001, Ekstrand, 3 units)
This course will integrate various social science disciplines and apply these perspectives to problems of HIV treatment and prevention, particularly in the developing world.

Current Issues in Infectious Diseases (PBHLTH 264 001, Liu, 2 units)
Examination of scientific, social, and policy dimensions of issues involving infectious diseases. Students select one topic for in-depth analysis and present findings in a public debate. Topics vary from year to year.

Architecture
Special Topics in the Social and Cultural Basis of Design (ARCH 219 001, Craiz, 3 units)
Topics include the sociology of taste, personal and societal values in design, participatory design, semantic ethnography, environments for special populations such as the elderly, and building types such as housing, hospitals, schools, offices, and urban parks.

"Healthy Buildings" (ARCH 249 004, 1 unit)
The UN Declaration on Human Rights states, "healthy environments are a human right". But what are healthy environments, and how do we design healthy environments for all and know that they are working as intended?

Agricultural and Resource Economics and Policy
International Economic Development Policy (ARESEC C253 001, Dejanvry, 3 units)
This course emphasizes the development and application of policy solutions to developing-world problems related to poverty, macroeconomic policy, and environmental sustainability.

Rural Economic Development Workshop (ARESEC 259 001, 1 unit)
Presentation and criticism of ongoing research by faculty, staff and students. Not necessarily offered every semester.

Bioengineering/ Mechanical Engineering
Design, Evaluate, and Scale Development Technologies (DEVENG C200 001, Gadgil, 3 units)
This required course for the Designated Emphasis in Development Engineering will include projects and case studies, many related to projects at UC Berkeley, such as those associated with the Development Impact Labs (DIL).

Innovation through Design Thinking (MECENG 290KA 001, Van Piet, 2 units)
Designed for professionally-oriented graduate students, this course explores key concepts in design innovation based on the human-centered design approach called “design thinking.”

Medical Imaging Signals and Systems (BIOENG C165 001, Conolly, 4 units)
Biomedical imaging is a clinically important application of engineering, applied mathematics, physics, and medicine. In this course, we apply linear systems theory and basic physics to analyze X-ray imaging, computerized tomography, nuclear medicine, and MRI.
Gene

Contemporary Geography (GEOG 200A 001, Sayre, 5 units)
The class has several goals. One is to give students a sound basis upon which to judge arguments. A second is to help students see, think, and write geographically—that is, to interpret the making and meaning of our physical and human landscapes.

Molecular and Cell Biology
Gene Editing for Fundamental Biology and Therapeutics (MCELLBI 218K 001, Corn, 2 units)
The use of genome engineering to study cellular signaling (especially ubiquitin-mediated signals) and develop potential new therapeutics and diagnostics will be covered in research reports and reviews of the current literature and in discussion of current experiments in the field.

**Political Science**

*The Statistics of Causal Inference in the Social Science (POLSCI C236A 001)*

Approaches to causal inference using the potential outcomes framework. Covers observational studies with and without ignorable treatment assignment, randomized experiments with and without noncompliance, instrumental variables, regression discontinuity, sensitivity analysis and randomization inference. Applications are drawn from a variety of fields including political science economics, sociology, public health and medicine.

*Politics and Policy-making in Developing Countries (POLSCI 210 001, Bussell, 4 units)*

This graduate seminar provides an introduction to the relationship between politics and policy-making in developing countries. Using India as a guide, we will examine the political institutions underlying the policy process and the role played by groups with diverse policy interests.

**School of Information**

*User Interface Design and Development (INFO 213 001, Youmans, 4 units)*


*Experiments and Causal Inference (DATASCI W241 002, 3 units)*

This course introduces students to experimentation in the social sciences.

*Behind the Data: Humans and Values (DATASCI W231 001, Good, 3 units)*

Intro to the legal, policy, and ethical implications of data, including privacy, surveillance, security, classification, discrimination, decisional-autonomy, and duties to warn or act.

*Applied Behavioral Economics for Information Systems (INFO 232 001, Weber, 3 units)*

"Behavioral Economics" is one important perspective on how information impacts human behavior. The goal of this class is to deploy a few important theories about the relationship between information and behavior, into practical settings.

**School of Journalism**

*Profiles (JOURN 242 001, Kahn, 3 units)*

In this workshop students use the profile form to develop a variety of skills that may be helpful whenever undertaking an ambitious story: figuring out what the story is and why you are writing it; interviewing; observation; background reporting; structuring material; finding your voice;

**Sociology**

*Sociology of Poverty (SOCIOl 280AA 001, Sanchez-Jankowiski, 3 units)*

This course introduces students to the sociology of poverty by understanding its causes and conditions. Poverty is part of the social stratification system as well as a condition with properties that characterize the individual living with extreme material scarcity.

**Statistics**

*The Statistics of Causal Inference in the Social Science (STAT C239A 001, Sekhon, 4 units)*

Approaches to causal inference using the potential outcomes framework.

*Biostatistical Methods: Survival Analysis and Causality (STAT C245B 001, Van Der Laan, 4 units)*

Analysis of survival time data using parametric and non-parametric models, hypothesis testing, and methods for analyzing censored (partially observed) data with covariates.