

# Public Health (PB HLTH)

## Courses

**PB HLTH 14 Healthy People: Introduction to Health Promotion 4 Units**  
Introduction to personal and community health, drawing on physical and social sciences. Specific areas include stress, alcohol and drugs, nutrition, exercise, the environment, communication, and sexuality. Readings, lectures, and discussions explore key issues for students and examine those issues in the context of contemporary American society. Public health approaches to disease prevention and health promotion are explored for each topic.

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 1 hour of discussion per week

### Additional Details

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructor:** Kodama

**PB HLTH 14N Healthy People: Introduction to Health Promotion 3 Units**  
This course introduces students to the basic theories and skills of personal and community health promotion within a public health context. Using a broad multi-disciplinary perspective, the course will examine selected health topics with particular attention to individual and group behaviors and their implications for personal and community health.

### Objectives Outcomes

**Course Objectives:**

1. To introduce students to the depth and scope of issues embraced by the theory and practice of public health.
2. To provide an overview of the meaning, principles, ethics and scope of personal and community health promotion.
3. To help students identify ways that individuals can take action to maximize their own health and create health-promoting environments.
4. To provide an opportunity for students to critically explore selected health issues from a multi-disciplinary perspective.
5. To provide an opportunity for students to apply the above concepts to a scholarly examination of a health issue in their own community, and to create positive, healthy change in their own community.

### Hours & Format

**Summer:** 8 weeks - 6 hours of lecture and 1 hour of discussion per week

### Additional Details

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructors:** Harris, Gamble

**PB HLTH 24 Freshman Seminar in Public Health 1 Unit**  
Seminar limited to 15 freshmen led by senior faculty on broad topics in public health such as financing health care, promoting preventive behavior, controlling major public health problems such as world hunger, AIDS, drugs, and the population explosion.

### Rules & Requirements

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

### Hours & Format

**Fall and/or spring:** 15 weeks - 1 hour of lecture per week

### Additional Details

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** The grading option will be decided by the instructor when the class is offered. Final exam required.

**PB HLTH 39C Freshman/Sophomore Seminar 2 - 4 Units**  
Freshman and sophomore seminars offer lower-division students the opportunity to explore an intellectual topic with a faculty member and a group of peers in a small-seminar setting. These seminars are offered in all campus departments; topics vary from department to department and from semester to semester.

### Rules & Requirements

**Credit Restrictions:** Priority given to freshmen and sophomores.

**Repeat rules:** Course may be repeated for credit when topic changes.

### Hours & Format

**Fall and/or spring:** 15 weeks - 2-4 hours of seminar per week

### Additional Details

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** The grading option will be decided by the instructor when the class is offered. Final exam required.

**PB HLTH 39E Freshman/Sophomore Seminar 2 - 4 Units**  
Freshman and sophomore seminars offer lower-division students the opportunity to explore an intellectual topic with a faculty member and a group of peers in a small-seminar setting. These seminars are offered in all campus departments; topics vary from department to department and from semester to semester.

### Rules & Requirements

**Credit Restrictions:** Priority given to freshmen and sophomores.

**Repeat rules:** Course may be repeated for credit when topic changes.

### Hours & Format

**Fall and/or spring:** 15 weeks - 2-4 hours of seminar per week

### Additional Details

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** The grading option will be decided by the instructor when the class is offered. Final exam required.

**PB HLTH 39G Freshman/Sophomore Seminar 2 - 4 Units**

Freshman and sophomore seminars offer lower-division students the opportunity to explore an intellectual topic with a faculty member and a group of peers in a small-seminar setting. These seminars are offered in all campus departments; topics vary from department to department and from semester to semester.

**Rules & Requirements**

**Credit Restrictions:** Priority given to freshmen and sophomores.

**Repeat rules:** Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2-4 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** The grading option will be decided by the instructor when the class is offered. Final exam required.

**PB HLTH 39H Freshman/Sophomore Seminar 2 - 4 Units**

Freshman and sophomore seminars offer lower-division students the opportunity to explore an intellectual topic with a faculty member and a group of peers in a small-seminar setting. These seminars are offered in all campus departments; topics vary from department to department and from semester to semester.

**Rules & Requirements**

**Credit Restrictions:** Priority given to freshmen and sophomores.

**Repeat rules:** Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2-4 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** The grading option will be decided by the instructor when the class is offered. Final exam required.

**PB HLTH 39I Freshman/Sophomore Seminar 2 - 4 Units**

Freshman and sophomore seminars offer lower-division students the opportunity to explore an intellectual topic with a faculty member and a group of peers in a small-seminar setting. These seminars are offered in all campus departments; topics vary from department to department and from semester to semester.

**Rules & Requirements**

**Credit Restrictions:** Priority given to freshmen and sophomores.

**Repeat rules:** Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2-4 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** The grading option will be decided by the instructor when the class is offered. Final exam required.

**PB HLTH 84 Sophomore Seminar 1 or 2 Units**

Sophomore seminars are small interactive courses offered by faculty members in departments all across the campus. Sophomore seminars offer opportunity for close, regular intellectual contact between faculty members and students in the crucial second year. The topics vary from department to department and semester to semester. Enrollment limited to 15 sophomores.

**Rules & Requirements**

**Prerequisites:** At discretion of instructor

**Repeat rules:** Course may be repeated for credit as topic varies. Course may be repeated for credit when topic changes.

**Hours & Format****Fall and/or spring:**

5 weeks - 3-6 hours of seminar per week

10 weeks - 1.5-3 hours of seminar per week

15 weeks - 1-2 hours of seminar per week

**Summer:**

6 weeks - 2.5-5 hours of seminar per week

8 weeks - 1.5-3.5 hours of seminar and 2-4 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** The grading option will be decided by the instructor when the class is offered. Final exam required.

**PB HLTH 97 Field Study 1 - 4 Units**

Supervised experience relevant to specific aspects of public health in off-campus organizations. Regular individual meetings with faculty sponsor and written reports required.

**Rules & Requirements**

**Prerequisites:** Lower division standing

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 1-4 hours of independent study per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Offered for pass/not pass grade only. Final exam not required.

**PB HLTH 98 Directed Group Study 1 - 4 Units****Rules & Requirements**

**Credit Restrictions:** Enrollment is restricted; see the Introduction to Courses and Curricula section of this catalog.

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 1-4 hours of directed group study per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Offered for pass/not pass grade only. Final exam not required.

**PB HLTH 99 Supervised Independent Study 1 - 4 Units****Rules & Requirements**

**Prerequisites:** Consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 1-4 hours of independent study per week

**Summer:**

6 weeks - 2.5-10 hours of independent study per week

8 weeks - 1.5-7.5 hours of independent study per week

10 weeks - 1.5-6 hours of independent study per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Offered for pass/not pass grade only. Final exam not required.

**PB HLTH C102 Bacterial Pathogenesis 3 Units**

This course for upper division and graduate students will explore the molecular and cellular basis of microbial pathogenesis. The course will focus on model microbial systems which illustrate mechanisms of pathogenesis. Most of the emphasis will be on bacterial pathogens of mammals, but there will be some discussion of viral and protozoan pathogens. There will be an emphasis on experimental approaches. The course will also include some aspects of bacterial genetics and physiology, immune response to infection, and the cell biology of host-parasite interactions.

**Rules & Requirements**

**Prerequisites:** 100, 102 or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructor:** Portnoy

**Also listed as:** MCELLBI C103/PLANTBI C103

**PB HLTH 103 Drugs, Health, and Society 2 Units**

Introduces undergraduates to concepts basic to understanding and analyzing relationships between drugs, health, and society. Using a broad multi-disciplinary perspective, examines legal and illegal drugs and their effects on personal and community health. Prevention of drug problems at the policy, community, organization, and individual levels will be examined.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture and 1 hour of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructor:** Kodama

**PB HLTH 104A Health Promotion in a College Setting 2 Units**

Topics include health promotion, medical self-care, and delivery of health care service. Through a combined theory and practice approach, topics are covered as they apply to the campus community. The course is divided into three sections corresponding to particular campus health field experiences in which students may be involved.

**Rules & Requirements**

**Prerequisites:** Consent of instructor

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 1.5 hours of lecture and 1 hour of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Offered for pass/not pass grade only. Final exam not required.

**Instructor:** Kodama

**PB HLTH 104B Health Promotion in a College Setting 2 Units**

Topics include health promotion, medical self-care, and delivery of health care service. Through a combined theory and practice approach, topics are covered as they apply to the campus community. The course is divided into three sections corresponding to particular campus health field experiences in which students may be involved.

**Rules & Requirements**

**Prerequisites:** Consent of instructor

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 1.5 hours of lecture and 1 hour of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Offered for pass/not pass grade only. Final exam not required.

**Instructor:** Kodama

**PB HLTH 105 Policy, Planning, and Evaluation of Health Promotion in a College Setting 3 Units**

Theory and practice of policy, planning, implementation, and evaluation of health promotion programs in a college setting. Comparison of different methodologies (peer education, teaching, problem-posing, organizational change), content areas (stress, nutrition, alcohol and drugs, AIDS, sexuality, women's health, self-care, health services), and settings (clinical, classroom, living room, campus).

**Rules & Requirements**

**Prerequisites:** 14, 104A or 104B, and consent of instructor

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructor:** Kodama

**PB HLTH 107 Violence, Social Justice, and Public Health 2 Units**

This course addresses violence as a public health issue, using an interdisciplinary public health approach to enable undergraduate students to explore and analyze violence from personal, social, community, and political perspectives. Beginning with individual experiences of violence and its impact, the course will go on to focus on gender- and race-based violence, firearms, poverty, youth, and collective violence; students will learn to apply public health strategies to identify causes of violence and develop practical community-based plans to prevent violence and promote safety.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructors:** Creighton, Kodama

**PB HLTH 112 Global Health: A Multidisciplinary Examination 4 Units**

This course examines health at the individual and community/global level by examining the interplay of many factors, including the legal, social, political, and physical environments; economic forces; access to food, safe water, sanitation, and affordable preventive/medical care; nutrition; cultural beliefs and human behaviors; and religion; among others. Students will be expected to read, understand, and use advanced materials from diverse disciplines. Class accompanied by case-based discussions.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 1 hour of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructors:** Krishnan, Reingold

**PB HLTH 113 Campus/Community Health Impact Program 3 Units**

This course looks at the issues of substance abuse, HIV prevention, and sexual health, particularly in relation to underrepresented groups, including African-American, Chicano/Latino, and LGBT communities. It covers principles of public health, community engagement, social justice, and health promotion. Students have the chance to participate in community outreach and develop basic outreach and health educator skills.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**PB HLTH 116 Seminar on Social, Political, and Ethical Issues in Health and Medicine 3 Units**

An interdisciplinary approach to health and medicine administered through the Health and Medical Apprenticeship Program (HMAP). Guest lecturers will speak on the social, political, and ethical aspects of health and medicine; students will then discuss and present analyses of the reading materials as well as issues raised by the speakers.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 1 hour of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Offered for pass/not pass grade only. Final exam required.

**Instructor:** Potts

**PB HLTH C117 Introduction to Global Health Disparities Research 2 Units**

This course is designed to prepare trainees in the UC Berkeley "Minority Health/Global Health" (MH/GH) program to conduct a ten-week infectious disease research project in a disease-endemic country. The course provides a background in neglected tropical disease research, international research ethics, and the conduct of health research in low-resource settings.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 1 hour of lecture and 1 hour of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructor:** Reingold

**Also listed as:** INTEGBI C195**PB HLTH 118 Nutrition in Developing Countries 3 Units**

We will focus on low- and middle-income countries because they experience the greatest burden of malnutrition, and because they face a unique context of limited financial and government resources. In this course, we will discuss the effects of nutrition throughout the lifecycle in pregnancy, infancy, childhood, and adulthood. We will focus on nutrition broadly including issues of undernutrition, micronutrient deficiencies, and obesity. We will also analyze and evaluate actions taken to ameliorate the major nutritional problems facing vulnerable populations in low- and middle-income countries.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Alternative to final exam.

**Instructor:** Fernald

**PB HLTH 126 Health Economics and Public Policy 3 Units**

This course focuses on a selected set of the major health policy issues and uses economics to uncover and better understand the issues. The course examines the scope for government intervention in health markets.

**Rules & Requirements**

**Prerequisites:** Public Health major or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Summer:** 8 weeks - 6 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructor:** Scheffler

**PB HLTH C129 The Aging Human Brain 3 Units**

The course will survey the field of the human brain, with introductory lectures on the concepts of aging, and brief surveys of normal neuroanatomy, neurophysiology, neurochemistry, and neuropsychology as well as methods such as imaging, epidemiology, and pathology. The neurobiological changes associated with aging will be covered from the same perspectives: neuropsychology, anatomy, biochemistry, and physiology. Major neurological diseases of aging including Alzheimer's and Parkinson's disease will be covered, as will compensatory mechanisms, neuroendocrine changes with aging, depression and aging, epidemiology of aging, and risk factors for decline.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture and 1 hour of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructor:** Jagust

**Also listed as:** NEUROSC C129

**PB HLTH 140 Introduction to Risk and Demographic Statistics 4 Units**  
Statistical and evaluation methods in studies of human mortality, morbidity, and natality. History of statistical terminology and notation, critical appraisal of registry and census data, measurement of risk and introduction to life tables. Computational systems and the analysis of mass data.

**Rules & Requirements**

**Prerequisites:** One year of calculus

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 1 hour of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructor:** Tarter

**PB HLTH 141 Introduction to Biostatistics 5 Units**

An intensive introductory course in statistical methods used in applied research. Emphasis on principles of statistical reasoning, underlying assumptions, and careful interpretation of results. Topics covered: descriptive statistics, graphical displays of data, introduction to probability, expectations and variance of random variables, confidence intervals and tests for means, differences of means, proportions, differences of proportions, chi-square tests for categorical variables, regression and multiple regression, an introduction to analysis of variance. Statistical software will be used to supplement hand calculation. Students who successfully complete Public Health 141 are prepared to continue their biostatistics course work in 200-level courses. With the approval of their degree program, MPH students may use Public Health 141 to fulfill the biostatistics course requirement (contact program manager for approval). Public Health 141 also fulfills the biostatistics course requirement for the Public Health Undergraduate Major.

**Rules & Requirements**

**Prerequisites:** High school algebra

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture, 1 hour of discussion, and 2 hours of laboratory per week

**Summer:** 6 weeks - 12.5 hours of lecture and 7.5 hours of laboratory per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**PB HLTH 142 Introduction to Probability and Statistics in Biology and Public Health 4 Units**

Descriptive statistics, probability, probability distributions, point and interval estimation, hypothesis testing, chi-square, correlation and regression with biomedical applications.

**Rules & Requirements**

**Prerequisites:** High school algebra

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 2 hours of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructor:** Selvin

**Formerly known as:** 142A

**PB HLTH 142AB Introduction to Probability and Statistics in Public Health and Biology 4 Units**

This course will provide an intense, fast-paced presentation of material contained in 142A-142B, which are offered during the regular academic year. Topics from 142A include descriptive statistics, probability, probability distributions, point and interval estimation, hypothesis testing, chi-square, correlation and regression with biomedical applications. The following topics from 142B will also be covered: analysis of variance, multiple regression, and nonparametric statistics.

**Rules & Requirements**

**Prerequisites:** High school algebra

**Hours & Format**

**Summer:**

4 weeks - 15 hours of lecture per week

6 weeks - 0 hours of lecture per week

8 weeks - 0 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructor:** van der Laan

**PB HLTH W142 Introduction to Probability and Statistics in Biology and Public Health 4 Units**

Descriptive statistics, probability, probability distributions, point and interval estimation, hypothesis testing, chi-square, correlation, and regression with biomedical applications.

**Hours & Format**

**Fall and/or spring:** 7 weeks - 8 hours of web-based lecture per week

**Online:** This is an online course.

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam not required.

**Instructor:** Lahiff

**PB HLTH 144A Introduction to SAS Programming 2 Units**

This course is intended to serve as an introduction to the SAS programming language for Windows in an applied, workshop environment. Emphasis is on data management and programming in a public health research setting. Topics include SAS language to compute, recode, label, and format variables as well as sort, subset, concatenate, and merge data sets. SAS statistical procedures will be used to compute univariate and bivariate summary statistics and tests, simple linear models, graphical plots, and statistical output data sets.

**Rules & Requirements**

**Prerequisites:** 142 or consent of instructor

**Credit Restrictions:** This course (or equivalent) is required for students who plan to enroll in 251, Practicum in Epidemiological Methods. Enrollment is limited to School of Public Health students. If space permits, others may enroll with consent of instructor.

**Hours & Format**

**Fall and/or spring:** 8 weeks - 2 hours of lecture and 3 hours of laboratory per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructor:** Lein

**PB HLTH 144B Intermediate SAS Programming 2 Units**

Topics include data step flow control, looping and automated processing, implicit and explicit arrays, data simulation strategies, data set reconfiguration, use of SAS Macro variables, and writing simple SAS Macro programs.

**Rules & Requirements**

**Prerequisites:** 144A

**Credit Restrictions:** Enrollment is limited to School of Public Health students. If space permits, others may enroll with consent of instructor.

**Hours & Format**

**Fall and/or spring:** 8 weeks - 2 hours of lecture and 3 hours of laboratory per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructor:** Lein

**PB HLTH 145 Statistical Analysis of Continuous Outcome Data 4 Units**  
Regression models for continuous outcome data: least squares estimates and their properties, interpreting coefficients, prediction, comparing models, checking model assumptions, transformations, outliers, and influential points. Categorical explanatory variables: interaction and analysis of covariance, correlation and partial correlation. Appropriate graphical methods and statistical computing. Analysis of variance for one- and two-factor models: F tests, assumption checking, multiple comparisons. Random effects models and variance components. Introduction to repeated measures models.

**Rules & Requirements**

**Prerequisites:** 142 or equivalent

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 2 hours of laboratory per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructor:** Lahiff

**Formerly known as:** 142B

**PB HLTH 150A Introduction to Epidemiology and Human Disease 4 Units**  
This course introduces epidemiological methods with the goal of teaching students to read critically and interpret published epidemiologic studies in humans. The course also exposes students to the epidemiology of diseases and conditions of current public health importance in the United States and internationally.

**Rules & Requirements**

**Prerequisites:** A course in statistics, preferably 142

**Hours & Format**

**Fall and/or spring:** 15 weeks - 4 hours of lecture and 1 hour of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructors:** Abrams, Barcellos, Buffler

**Formerly known as:** 150

**PB HLTH 150B Introduction to Environmental Health Sciences 3 Units**  
The course will present the major human and natural activities that lead to release of hazardous materials into the environment as well as the causal links between chemical, physical, and biological hazards in the environment and their impact on human health. The basic principles of toxicology will be presented including dose-response relationships, absorption, distribution, metabolism, and excretion of chemicals. The overall role of environmental risks in the pattern of human disease, both nationally and internationally, will be covered. The engineering and policy strategies, including risk assessment, used to evaluate and control these risks will be introduced.

**Rules & Requirements**

**Prerequisites:** 142 and 150A recommended. May be taken concurrently

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 1 hour of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructor:** K. Smith

**Formerly known as:** second half of 150

**PB HLTH 150D Introduction to Health Policy and Management 3 Units**  
This course is intended to introduce students to health policy making and health care organizations in the United States. Students will be introduced to concepts from public policy, economics, organizational behavior, and political science. Students will also be introduced to current issues in U.S. health policy and the present organization of the U.S. health care system.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Summer:** 8 weeks - 6 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructor:** Halpin

**PB HLTH 150E Introduction to Community Health and Human Development 3 Units**

This course will consist of a survey of the major social, cultural, and bio-behavioral patterns of health and well-being among individuals, families, neighborhoods, and communities. The course also will address the design, implementation, and evaluation of leading social and behavioral interventions and social policies designed to improve community and population health. This course will satisfy one of the core requirements for the undergraduate major in public health.

**Rules & Requirements**

**Prerequisites:** Third or fourth undergraduate standing or consent of instructor

**Requirements this course satisfies:** Satisfies the American Cultures requirement

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 1 hour of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructor:** Satariano

**PB HLTH C155 Sociology of Health and Medicine 4 Units**

This course covers several topics, including distributive justice in health care, the organization and politics of the health system, the correlates of health (by race, sex, class, income), pandemics (e.g., AIDS, Avian Flu and other influenzas, etc.), and the experience of illness and interactions with doctors and the medical system.

**Rules & Requirements**

**Prerequisites:** Sociology 1, 3, 3AC or consent of instructor

**Credit Restrictions:** Students will receive no credit for Sociology C115 after taking Sociology 155, Sociology C155/Public Health C155. <BR/>A deficient grade in Sociology 155 may be removed by taking Sociology C115/Public Health C155.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Summer:** 6 weeks - 7.5-8 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Formerly known as:** C155

**Also listed as:** SOCIOL C115

**PB HLTH C160 Environmental Health and Development 4 Units**

The health effects of environmental alterations caused by development programs and other human activities in both developing and developed areas. Case studies will contextualize methodological information and incorporate a global perspective on environmentally mediated diseases in diverse populations. Topics include water management; population change; toxics; energy development; air pollution; climate change; chemical use, etc.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 1 hour of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructor:** Morello-Frosch

**Also listed as:** ESPM C167

**PB HLTH 162A Public Health Microbiology 3 Units**

Introduction to properties of microorganisms; their relationships with humans in causing infectious diseases and in maintaining health. With 162L, satisfies most requirements for a laboratory course in microbiology. May be taken without 162L.

**Rules & Requirements**

**Prerequisites:** One year each of college-level biology and chemistry

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Summer:** 8 weeks - 6 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructors:** Buehring, Dailey

**PB HLTH 162L Public Health Microbiology Laboratory 1 Unit**  
Laboratory to accompany 162A.

**Rules & Requirements**

**Prerequisites:** One year each of college-level biology and chemistry. Students must take 162A concurrently or have taken it previously

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of laboratory per week

**Summer:**

6 weeks - 6 hours of laboratory per week

8 weeks - 4 hours of laboratory per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructor:** Loretz

**PB HLTH 170B Toxicology 3 Units**

Introduction to toxicology covering basic principles, dose-response, toxicity testing, chemical metabolism, mechanisms of toxicity, carcinogenesis, interpretation of toxicological data for risk assessment, and target organ toxicity.

**Rules & Requirements**

**Prerequisites:** Consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 1 hour of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructor:** M. Smith

**PB HLTH 170C Drinking Water and Health 3 Units**

The course covers monitoring, control and regulatory policy of microbial, chemical and radiological drinking water contaminants. Additional subjects include history and iconography of safe water, communicating risks to water consumers and a bottled water versus tap water taste test as part of the discussion on aesthetic water quality parameters. A field trip to a local water treatment plant is included.

**Objectives Outcomes**

**Student Learning Outcomes:** By the end of this course, students will be expected to:

Recognize the global occurrence of waterborne contaminants and related health impacts.

Understand water quality monitoring and control of key water quality constituents.

Appreciate the complexities of the regulatory process as it pertains to public drinking water systems in the US and abroad.

Read and synthesize published and unpublished sources of information regarding drinking water and health. Prepare a literature review in journal submission format.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Alternative to final exam.

**Instructor:** Smith

**PB HLTH 180 The Evolution of Human Sexuality 2 Units**

This course is built around an evolutionary perspective of the basis of human mating behavior and explores a variety of topics in human sexuality with the goal of helping us to understand ourselves and to understand and accept the behavior of others. The course takes examples from art, sociology, anatomy, anthropology, physiology, contemporary politics, and history to explore the richness of human sexual behavior and reproduction and the interaction between our biology and our culture.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructor:** Potts

**PB HLTH 181 Poverty and Population 3 Units**

Globally one million more births than deaths occur every 112 hours, 90% in the poorest countries. Between 1960 and 1980, considerable attention was focused on rapid population growth. Afterwards, the attention has faded and investment in family planning evaporated. Family size among some of the poorest women is increasing. This course seeks to provide an understanding of the relationships between population growth, poverty, women's autonomy, and health. It explores the political "fashions" underlying changing paradigms among demographers, and economists, and development specialists.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture and 1 hour of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructors:** Campbell, Potts, Prata

**PB HLTH 183 The History of Medicine, Public Health, and the Allied Health Sciences 3 Units**

This course will examine the historical developments of social and scientific responses to human disease from their beginnings to their current roles as major forces in modern society. It will consider the evolution of diagnoses, treatment, and prevention of human morbidity and death from both a humanistic and scientific perspective. It invites pre-medical, pre-dental, and other students preparing for careers in public health, nursing, optometry, or the other health sciences, students interested in public policy and health-related law, and students of history or the other humanities who wish an overview of medicine and health from a broad historical perspective.

**Rules & Requirements**

**Prerequisites:** Knowledge of (and preferably a college level course which covered) basic aspects of (mammalian) physiology and anatomy. Graduate or upper division undergraduate status

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructor:** Hook

**PB HLTH H195A Special Study for Honors Candidates in Public Health 3 Units**

Regular individual meetings with a faculty advisor culminating in a thesis at completion of H195B. H195A will concentrate primarily on researching a topic in public health. H195B will concentrate on development and writing up results in the form of a thesis. Students must enroll for both semesters of the sequence.

**Rules & Requirements**

**Prerequisites:** Senior status; 3.3 overall GPA

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of independent study per week

**Summer:**

6 weeks - 7.5 hours of independent study per week

8 weeks - 5.5 hours of independent study per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. This is part one of a year long series course. A provisional grade of IP (in progress) will be applied and later replaced with the final grade after completing part two of the series. Final exam not required.

**PB HLTH H195B Special Study for Honors Candidates in Public Health 3 Units**

Regular individual meetings with a faculty advisor culminating in a thesis at completion of H195B. H195A will concentrate primarily on researching a topic in public health. H195B will concentrate on development and writing up results in the form of a thesis. Students must enroll for both semesters of the sequence.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of independent study per week

**Summer:**

6 weeks - 7.5 hours of independent study per week

8 weeks - 5.5 hours of independent study per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. This is part two of a year long series course. Upon completion, the final grade will be applied to both parts of the series. Final exam not required.

**PB HLTH 196 Special Topics in Public Health 1 - 4 Units**

Special topics in various fields of Public Health. Topics covered will vary from semester to semester and will be announced at the beginning of each term.

**Rules & Requirements**

**Prerequisites:** Upper division standing

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 1-4 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**PB HLTH 197 Field Study in Public Health 1 - 4 Units**

Supervised experience relevant to specific aspects of public health in off-campus organizations. Regular individual meetings with faculty sponsor and written reports required.

**Rules & Requirements**

**Prerequisites:** Upper division standing

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 1-4 hours of independent study per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Offered for pass/not pass grade only. Final exam not required.

**PB HLTH 198 Directed Group Study 1 - 4 Units**

**Rules & Requirements**

**Prerequisites:** Upper division standing

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 1-4 hours of directed group study per week

**Summer:**

6 weeks - 1-4 hours of directed group study per week

8 weeks - 1-4 hours of directed group study per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Offered for pass/not pass grade only. Final exam not required.

PB HLTH 199 Supervised Independent Study and Research 1 - 4 Units  
Enrollment restrictions apply; see the Introduction to Courses and Curricula section of this catalog.

**Rules & Requirements**

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 1-4 hours of independent study per week

**Summer:**

6 weeks - 1-4 hours of independent study per week

8 weeks - 1-4 hours of independent study per week

**Additional Details**

**Subject/Course Level:** Public Health/Undergraduate

**Grading/Final exam status:** Offered for pass/not pass grade only. Final exam not required.

**PB HLTH 200A Current issues in Public Health Ethics: Research and Practice 3 Units**

This course seeks to examine the ethical challenges inherent in public health practice, research, and policy. It covers a range of topics in ethics through cases representative of different public health dilemmas. The cases considered include treating homeless people with TB, rationing medical care in the United States, conducting HIV studies of maternal-fetal transmission in Africa, managed care policies and setting priorities, the deaf community and cochlear implants, and the societal implications of genetic information. The goal is to enable students to develop an analytical methodology that has practical application for their future work.

**Rules & Requirements**

**Prerequisites:** Graduate standing

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Halpern

**PB HLTH 200C Public Health Core Breadth Seminar 3 Units**

This course is designed to provide students with a brief introduction to the field of public health and a basic understanding of the contributions of the environmental, behavioral, and management and policy sciences to the practice of public health. Central foci of the course include the interactions of biology, behavior and environment; the community and population-based nature of public health; health disparities; the relationships among health care access, cost and quality of care; the performance of the health care delivery system; the concepts of risk and burden of disease; the importance of ecological and life course perspectives; and theory- and evidence-based public health research and practice. By the conclusion of this course, students will be able to discuss and describe seminal concepts and approaches, as well as current theories and methods underlying societal efforts to study and address key public health problems.

**Rules & Requirements**

**Prerequisites:** Graduate standing

**Hours & Format**

**Fall and/or spring:** 15 weeks - 4 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Minkler, Shortell, Smith

**PB HLTH 200C1 Health Policy and Management Breadth Course 2 Units**  
Health policy and management applies concepts from economics, organizational behavior, and political science to the structure, financing, and regulation of the public health and health care delivery systems. This breadth course is designed to give MPH students a basic set of competencies in the domains central to the field.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Robinson

**PB HLTH 200C2 Environmental Health Sciences Breadth Course 2 Units**  
This course will give an introduction to the major human and natural activities that lead to release of hazardous materials into the environment as well as the causal links between chemical, physical, and biological hazards in the environment and their impact on human health, including those related to climate change. The basic principles of toxicology, exposure assessment, risk assessment, risk perception, and environmental health policy will be presented. The overall role of environmental risks in the pattern of human disease, both nationally and internationally, will be covered.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Bates, K. Smith

**PB HLTH 200C3 Health and Social Behavior Breadth 2 Units**  
Health and social behavior uses theory and research from the behavioral sciences to explain the causes and health effects of salutary and risky behavior.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Catalano

**PB HLTH 200D Applied Public Health: Putting Theory Into Practice 2 Units**

This course trains students in applied public health through discussion, lectures, guest speakers, cases, and field trips. Students integrate learning from previous courses with work experience. Cases emphasize current national/global public health issues and practice. At course completion, students will be able to: Demonstrate the capacity to identify, research, and respond to real-life public health challenges; work effectively and efficiently in problem-solving groups; professionally present the results of their effort to large groups for feedback and evaluation.

**Rules & Requirements**

**Prerequisites:** 142, 200C, and 250A

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Braff, Rundall, Winkelstein

**PB HLTH W200E Health Policy and Management Breadth Course 3 Units**  
Health policy and management applies concepts from economics, organizational behavior, and political science to the structure, financing, and regulation of the public health and health care delivery systems. This breadth course is designed to give MPH students a basic set of competencies in the domains central to the field.

**Hours & Format**

**Fall and/or spring:** 7 weeks - 6 hours of web-based lecture per week

**Summer:** 6 weeks - 6 hours of web-based lecture per week

**Online:** This is an online course.

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Fulton

**PB HLTH W200F Environmental Health Sciences Breadth Course 2 Units**  
This survey course covers the breadth of hazards from chemical, biological, and physical agents of concern to environmental health professionals. Lectures are presented by experts on particular topics that emphasize the activities involved in professional practice.

**Hours & Format**

**Fall and/or spring:** 7 weeks - 4 hours of web-based lecture per week

**Online:** This is an online course.

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** K. Smith

PB HLTH W200G Health and Social Behavior Breadth 3 Units  
Health and social behavior uses theory and research from the behavioral sciences to explain the causes and health effects of salutary and risky behavior.

**Hours & Format**

**Fall and/or spring:** 7 weeks - 5 hours of web-based lecture per week

**Summer:** 6 weeks - 6-6 hours of web-based lecture per week

**Online:** This is an online course.

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Chang

PB HLTH 201E Public Health Interventions: Theory, Practice, and Research 2 or 3 Units

This course focuses on the primary factors that affect health and the interventions that can promote health. Students examine the determinants of health and the theory, history, types, ethics, and approaches of public health interventions. Community level interventions and multidisciplinary approaches receive special emphasis. The course stresses a rigorous critique of the outcomes of interventions and practical ways to improve them. Students take an active role in the design and conduct of the course.

**Rules & Requirements**

**Prerequisites:** Previous experience with health interventions and doctoral student status or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Neuhauser, Syme

PB HLTH 201F Community-Based Research and Interventions to Promote Health: Theory and Methods 3 Units

This course will delve into theoretical, methodological, and practical considerations in conducting physical and mental health interventions in diverse communities. Course emphases are: a) conceptualization and implementation of community interventions within ecological models and principles; b) logic models of intervention process and outcomes; c) comparing and integrating prevention science and community-based participatory approaches to intervention; d) strategies and challenges in replicating and diffusing community-based interventions across diverse settings; and e) cultural competency in community intervention development.

**Rules & Requirements**

**Prerequisites:** Graduate standing

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Ozer

PB HLTH 202B Ethnic and Cultural Diversity in Health Status and Behavior 3 Units

Focus on ethnic and cultural diversity in health behavior as a basis for public health programs. Consideration of U.S. ethnic minority groups and cultural groups in non-Western societies. Health status and behavior examined in context of relevant social and anthropological theory (social class, acculturation, political economy). Influence of socio-cultural background on concepts of health, illness, and health-seeking behavior. Implications for planning public health programs and policies.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Herd

**PB HLTH C202B Ethnic and Cultural Diversity in Health Status 3 Units**  
Focus on ethnic and cultural diversity in health behavior as a basis for public health programs. Consideration of U.S. ethnic minority groups and cultural groups in non-Western societies. Health status and behavior examined in context of relevant social and anthropological theory (social class, acculturation, political economy). Influence of socio-cultural background on concepts of health, illness, and health-seeking behavior. Implications for planning public health programs and policies.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Morello-Frosch

**Also listed as:** ESPM C254

**PB HLTH 202G Advanced Alcohol Research Seminar 1 Unit**  
This course is an advanced alcohol research seminar in which presentations are made by alcohol research scientists nationally and internationally, as well as pre-and post-doctoral fellows, and focus on special topical areas related to psychosocial research in the field each semester. Areas covered include the epidemiology of drinking patterns and alcohol-related problems, issues related to treatment of alcohol-related problems, and health services research. Guest presentations are also provided (related to topics outside psychosocial research) to provide a breadth of understanding in the field. The seminar also includes sessions focused on methodological issues in alcohol-related research and grant writing, and has a research ethics component covering a number of sessions.

**Rules & Requirements**

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Cherpitel, Kaskutas

**PB HLTH W202 Ethnic and Cultural Diversity in Health Status 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.

**Hours & Format**

**Fall and/or spring:** 7 weeks - 6 hours of web-based lecture per week

**Online:** This is an online course.

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Morello-Frosch

**PB HLTH 203A Theories of Health and Social Behavior 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.

**Rules & Requirements**

**Prerequisites:** Background in social and behavioral sciences. Consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Holmes

**PB HLTH 204A Mass Communications in Public Health 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. Provides an in-depth understanding of media advocacy as a strategy for using news media and paid advertising to support policy initiatives at the local, state, and federal levels. Examples are drawn from a wide range of public health issues.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**PB HLTH 204D Community Organizing and Community Building for Health 3 or 4 Units**

This course emphasizes community organizing and community building as major approaches to creating healthy communities and fostering broader social change. It further examines the role of public health practitioners as change agents, stressing in particular the values and ethical issues that arise within the context of diverse and multicultural communities. Both advancement of theoretical knowledge and the development of skills in applying such knowledge in the areas of community organizing and community building will be stressed. This is a Service Learning Course, and students wishing to undertake a concurrent field project can earn an additional optional unit of credit.

**Rules & Requirements**

**Prerequisites:** Consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Minkler

**PB HLTH 204F Culture, Public Health Practice, and Eliminating Health Disparities: From Ideas to Action in the 21st Century 3 Units**  
Public health literature and practice make frequent reference to the terms culture, cultural competence, race, racism, ethnicity, and health disparities. Understanding these terms, their complex meanings and current application in public health practice is the subject matter of this course. By the end of the course students will be able to describe the concepts of culture, race, racism, ethnicity, cultural competence, cultural humility, health disparities and their use in public health theory and practice; identify and describe the application of these concepts in local public health practice; and demonstrate an understanding of these concepts and their application in public health practice through the completion of a group project.

**Rules & Requirements**

**Prerequisites:** Graduate students in Public Health or by consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Nazeeri-Simmons

**PB HLTH 204G Research Advances in Health Disparities: Multidisciplinary Perspectives 2 Units**

A critical overview of major theories and research findings on health disparities from a multidisciplinary perspective. It will focus on applying major theoretical approaches from Public Health, Anthropology, Social Welfare, and other disciplines to understand and address health disparities. These approaches include social determinants of health, lifecourse perspectives, health as a human right, stress and bio-social perspectives, social construction of disease, and healthcare access and quality.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Herd

**PB HLTH 204H Exploring Community Health Through Film 1 Unit**  
This is a film series offered through Community Health & Human Development. We wish to put "community" back in CHHD by uniting the four program areas: Public Health Nutrition (PHN), Maternal & Child Health (MCH), Health & Social Behavior (HSB), and the Joint Medical Program (JMP) in a semester long breadth course. Six to seven films, recommended by faculty and students, will be screened each spring semester. There will be a panel discussion. Panels will consist of a faculty "host" for a given film and one to two additional guests invited from the community or from the broader UC Berkeley community.

**Rules & Requirements**

**Prerequisites:** None

**Hours & Format**

**Fall and/or spring:** 15 weeks - 4 hours of colloquium per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Offered for satisfactory/unsatisfactory grade only.

**Instructors:** Francis, Eskenazi

**PB HLTH W204 Mass Communication in Public Health 3 Units**

The purpose of this course is to provide students with an understanding of how the media can be used to promote healthy public policy. The primary focus of the course is on "media advocacy." Students will learn how to frame issues from a public health perspective. In learning more about how the media operate, they will be better equipped to work effectively with journalists.

**Hours & Format**

**Fall and/or spring:** 6 weeks - 6-6 hours of web-based lecture per week

**Summer:** 6 weeks - 6-6 hours of web-based lecture per week

**Online:** This is an online course.

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Catalani

**PB HLTH 205 Program Planning, Development, and Evaluation 4 Units**

Basic elements and considerations in planning health programs; case material will be drawn from health settings, with emphasis on multidisciplinary planning. Assessment of problems, setting goals and objectives, designing activities, implementation and evaluation.

**Rules & Requirements**

**Prerequisites:** Public health students

**Hours & Format**

**Fall and/or spring:** 15 weeks - 4 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**PB HLTH W205 Program Planning, Development, and Evaluation 3 Units**

The purpose of this course is to provide students with the necessary skills to plan health programs. We will examine the principles and methods underlying program planning. Multi-disciplinary, collaborative planning will be emphasized. Program planning applications will be emphasized throughout the course by using case studies, specific illustrations, and online planning exercises.

**Hours & Format**

**Fall and/or spring:** 7 weeks - 6 hours of web-based lecture per week

**Online:** This is an online course.

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Dublin

**PB HLTH 206 PH Nutrition Core Course: Critical Issues in Public Health Nutrition 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. Students will build group facilitation skills, library research skills, and professional advocacy skills. Second-year public health nutrition students and a panel of PHN graduates will speak to the students about valuable skills and competencies needed for work in public health nutrition.

**Rules & Requirements**

**Prerequisites:** Master of Public Health students

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Fernald

**PB HLTH 206A Nutrition Status, Physical Activity, and Chronic Conditions 3 Units**

Concepts, methods, and limitations in the determination of nutritional status; application of methodologies for determining and interpreting data; technical, social, and political implications of nutritional assessments and related community needs.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Laraia

**PB HLTH 206B Food and Nutrition Policies and Programs 3 Units**

This course examines the historical origins of food and nutrition improvement programs in the United States, including the political and administrative conditions that led to the development of these programs. It also examines the goals, design, operations, and effectiveness of some of these programs: Food Stamp Program, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), the National School Lunch Program, the School Breakfast Program, Head Start, the Child Care Food Program, and the Elderly Nutrition Program.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Summer:** 3 weeks - 15 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Fernald

**PB HLTH 206C Nutritional Epidemiology 3 Units**

This course develops the ability to read published nutritional epidemiology research critically. Basic research methods in nutritional epidemiology will be reviewed, and issues in design, analysis, and interpretation unique to nutritional epidemiology will be addressed. This will be accomplished by readings and study questions, lecture/discussions, and problem sets.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 4 hours of lecture per week

**Summer:** 8 weeks - 15 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Block

**PB HLTH 206D Food and Nutrition Programs and Policies in Developing Countries 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. In the course we will analyze, assess and evaluate ways to take action to ameliorate the major nutritional problems facing vulnerable populations in developing countries.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Fernald

**PB HLTH W206 Maternal and Child Health Nutrition 3 Units**

Nutrition plays a vital role in human reproduction, child growth/development. Course provides an overview of the major nutritional issues for infants, children, adolescents, and reproductive age women in the United States. One module on malnutrition offers global content. Reviews programs, interventions aimed at improving MCH nutrition, builds student familiarity with evidence-based MCH nutrition practice guidelines. Demonstrates a methodology for applying this knowledge to food choices at a personal, programmatic level. Students will be asked to engage in a "hands on" experience with the USA's Supplemental Nutrition Assistance Program (formerly The Food Stamp Program). Supplemental learning activities for this course are highly interactive

**Rules & Requirements**

**Repeat rules:** if student receives D or F grade

**Hours & Format**

**Summer:** 6 weeks - 6 hours of web-based lecture per week

**Online:** This is an online course.

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Leung

**PB HLTH 207A Public Health Aspects of Maternal and Child Nutrition 2 or 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. Nutritional problems are multi-factorial and occur at multiple levels and we will study them from a variety of viewpoints (biological, psychological, socio-cultural, economic, political, and behavioral) as well as from individual and population perspectives. Participants in the course will become acquainted with nutritional research, policies, and interventions designed to enhance reproduction, growth, and development. This course will also explore health disparities in maternal and child nutrition in both a domestic and international context.

**Rules & Requirements**

**Prerequisites:** Course in epidemiology required; previous coursework in biology and nutritional science highly recommended

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Abrams

**PB HLTH 208A Public Health Aspects of Nutritional Care: In Hospital Setting 5 Units**

The nutritional care of people with major diseases is reviewed, observed, and practiced in various Bay Area hospitals. Current nutritional therapies of heart disease, cancer, diabetes, renal diseases, liver diseases, gastrointestinal disorders, and trauma are reviewed. The organization and delivery of nutritional care services in hospital settings.

**Rules & Requirements**

**Prerequisites:** Admission to MPH Nutrition Internship and Nutritional Science 161, Nutritional Science 161L or equivalent

**Hours & Format**

**Fall and/or spring:** 15 weeks - 8 hours of lecture and 32 hours of fieldwork per week

**Summer:** 10 weeks - 8 hours of lecture and 32 hours of fieldwork per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Offered for satisfactory/unsatisfactory grade only.

**PB HLTH 208B Public Health Aspects of Nutritional Care: In Selected Facilities 3 Units**

The organization and delivery of nutrition care services facilities such as health departments, ambulatory health care settings, child care and education facilities, skilled nursing facilities, and senior nutrition programs. Included are nutrition education and counseling, food service, nutrition assessments, consultation, and training.

**Rules & Requirements**

**Prerequisites:** Completion of 208A or consent of instructor

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 8 hours of lecture and 32 hours of fieldwork per week

**Summer:** 10 weeks - 8 hours of lecture and 32 hours of fieldwork per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Formerly known as:** Social and Administrative Health Sciences 256B

**PB HLTH 210 Maternal and Child Health Specialty Area Core Course 3 Units**

The core course in maternal and child health will provide an integrated approach to issues, programs, and policies in the field of maternal and child health. The following concepts will be explored and addressed in depth: 1) the foundation of maternal and child health, including an overview of the field, history, and foundation of MCH practice and programs, and attention to financing of these programs; 2) MCH data sources, uses of data, and related issues; and 3) policies and practices in MCH (including discussions with community professionals to address practical problems, public policy concerns, current issues in MCH, and current research in MCH). In addition, major health problems facing women, children, and adolescents will be explored, including how and why these are distributed in these populations.

**Rules & Requirements**

**Prerequisites:** Consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Pies

**PB HLTH 210B Adolescent Health 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.

**Rules & Requirements**

**Prerequisites:** Graduate standing

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Deardorff

**PB HLTH 210C Needs Assessment in Maternal and Child Health 3 Units**

The purpose of this course is to provide a conceptual and practical understanding of health needs and the strategies that can be used for conducting needs assessments in maternal and child health. The course is aimed at students who anticipate working in situations that involve measuring health problems in communities, planning for health services, and advocating or making decisions about the distribution of community health resources.

**Rules & Requirements**

**Prerequisites:** Graduate student in Public Health

**Repeat rules:** Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Guendelman

**Formerly known as:** 210B

**PB HLTH 210D Reproductive and Perinatal Epidemiology 2 Units**

Research methods and issues in perinatal and reproductive epidemiology with emphasis on methods of study. Specific adverse reproductive outcomes, risk factors, and prevalence will be discussed. Will include critiques of published studies and techniques of proposal writing.

**Rules & Requirements**

**Prerequisites:** Graduate standing in epidemiology or consent of instructor

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Eskenazi

**PB HLTH 210E Practicum in MCH Data Analysis I 3 Units**

This course is designed to support MCH students complete their masters capstone project. Part I is offered in the Fall and Part II is in Spring.

**Rules & Requirements**

**Credit Restrictions:** Formerly known as: PH 293-7 MCH Seminar.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture and 2 hours of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Offered for satisfactory/unsatisfactory grade only.

**Instructor:** Eskenazi

**PB HLTH 210F Practicum In MCH Data Analysis II 1 - 4 Units**

The course is designed to support MCH students working on their Master's Capstone project. The course goal is to support students in a variety of methodological issues and practical issues. The course is a combination of formal class meetings and one-on-one meetings.

**Rules & Requirements**

**Credit Restrictions:** Formerly known as: 293-6 Practical Issues in MCH Data Analysis.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 1-2 hours of seminar and 1-2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Offered for satisfactory/unsatisfactory grade only.

**Instructor:** Harley

**PB HLTH 212A International Maternal and Child Health 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.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Miller

**PB HLTH 212C Migration and Health: A U.S.-Mexico Binational Perspective 2 - 3 Units**

Building upon expertise on migration from Mexico to the U.S., the goal of this course is to strengthen students' knowledge and understanding of public health issues of immigrants and the effects that migration has on the health/disease issues of communities in the countries of origin, transit, and destination. Students will explore successful public health intervention programs targeting these populations.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture and 1 hour of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Guendelman

**PB HLTH 212D Expanded Foundations of Global Health 2 Units**

This is one of the two sequential graduate level core courses of the Global Health specialty area, designed to deepen students' understanding of the complexities of global health issues. It will build on the principles discussed in the fall semester in Foundations of Global Health (PH C253/DEVP C232 (<http://guide.berkeley.edu/search/?P=DEVP%20C232>)). The course will discuss current interventions and possible approaches for the future, complex ethical and political issues, and will prepare students to become part of the future global health work force and leadership. The course will be taught using a mix of teaching styles including case-based learning, trans-disciplinary approaches, and guest lecturers. It will integrate new technology and web-based class reflections.

**Rules & Requirements**

**Prerequisites:** Qualified seniors may enroll with prior consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Hemmerling, Le

**PB HLTH 212E Private Sector Health Services in Developing Countries 2 Units**

This course will serve students intending to conduct research, policy work, or program implementation in health services in developing countries. Topics covered will include definition and typology of private sector in various countries, theories of private sector regulation, motivation, and research. Methodological and practical issues in measuring provider importance, quality, and in influencing the activities of actors in private health delivery will be explored from viewpoints of both research and programmatic intervention.

**Rules & Requirements**

**Prerequisites:** Graduate standing

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Montagu, Prata

**PB HLTH 213A Family Planning, Population Change, and Health 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 and discusses the factors that have made for successful family programs as well as those that have generated controversy. The course looks at the relationship between family planning and the health of women and children and at the role of family size in economic development and environmental problems. It looks at advances in family planning, organization, and promotion of services and discusses ethical issues facing providers.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Campbell, Potts, Prata

**PB HLTH 214 Eat.Think.Design 3 Units**

This course is a team-oriented, project-based course designed around the case-based and learning-by-doing models. The critical elements of the human-centered design process – discovering, ideating, and prototyping – are learned through didactic sessions and an 8-week project students work on in teams. Working with community partners on a public health issue related to food, the student teams apply human-centered design skills to the problem, and design and pilot (when possible) a solution with and for their community partner.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture and 1 hour of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Sandhu, Madsen

**PB HLTH 216A Biological Embedding of Social Factors 2 Units**

This is an interdisciplinary course which will adopt a broad-based ecological perspective of health and behavior. This class will emphasize the interconnected and multidirectional relationships between biology, behavior, and the social environment. This course will be conducted as a seminar series (with a focus on biological processes). We will investigate the assertion that biological, psychological, and social processes interact over a lifetime to influence health and vulnerability to disease (a developmental epigenetic perspective). Rather than focusing on "if" social factors can influence health and disease we will focus on "how" social factors may regulate/change biological measures. Three very general themes will be addressed: development, "social" neuroscience and gene-environment interactions as they relate to behavior. Topics such as constraints/plasticity and behavior, genetic determinism, vulnerability versus resilience, gene-environment interactions, fetal/developmental programming, and stress will all be touched upon.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Francis

**PB HLTH 217C Aging and Public Health 3 Units**

The purpose of this course is to provide an overview of research, practice, and policy in the area of aging and public health. Topics will include the epidemiology of aging; race, class, gender, and aging; nutrition and the elderly; and current health policy surrounding aging. Themes running throughout the course and linking a number of the topics covered will include the diversity of the elderly; the importance of comorbidity and functional health status in this population group; the family and broader environmental contexts in which aging takes place; and the influence of public and private sector policies on health and health-related behavior in the elderly. Weekly lectures by the faculty will be complemented by presentations by prominent Bay Area researchers in the areas of geriatrics and gerontology. This is the core course for the School of Public Health specialty in aging and public health.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Satariano

**PB HLTH C217D Biological and Public Health Aspects of Alzheimer's Disease 3 Units**

This course will survey the field of Alzheimer's disease (AD) from a biological and public health perspective by reading original research papers in the fields of medicine, neuroscience, and epidemiology. The course will begin with a historical survey of the concept of AD, followed by a description of clinical and neuropathological features. Subsequent classes will cover the genetics and molecular biology of the disease, as well as biomarkers, epidemiology, risk factors, treatment, development of new diagnostic approaches, and ethical issues. The course will also serve as a model for the analysis of complex diseases with multiple genetic and environmental causes, and late onset neurodegenerative diseases. The course will also serve as a model for the analysis of complex diseases with multiple genetic and environmental causes and late-onset neurodegenerative disease.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Jagust

**Also listed as:** NEUROSC C217D

**PB HLTH 218B Evaluation of Health and Social Programs 4 Units**

The study of concepts, methods, rationale, and uses of evaluation research as they apply to health and social programs.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3-3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**PB HLTH W218 Evaluation of Health and Social Programs 3 Units**

This course provides an overview of the concepts and methods of program evaluation. The course will be useful to those concerned with evaluation of health and social service programs. Participants will develop the critical skills necessary to assess the quality of evaluation research projects, to apply technical skills in professional practice, and to develop evaluation plans for a variety of health and social programs.

**Hours & Format**

**Fall and/or spring:** 7 weeks - 6 hours of web-based lecture per week

**Online:** This is an online course.

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Paleo

**PB HLTH 219A Advanced Methods: Qualitative Research 3 Units**

An overview of the theoretical and methodological components involved in various aspects of qualitative research.

**Rules & Requirements**

**Prerequisites:** Doctoral student in public health or a related discipline, or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**PB HLTH 219C Community-Based Participatory Research in Public Health 3 - 4 Units**

The goal of this seminar is to provide doctoral and advanced master's degree students with an understanding of theories, principles, and strategies of community-based participatory research (CBPR) and related traditions. The advantages and limitations of this approach, skills necessary for effective application, and theory-driven case studies will be explored. Students undertaking a service-learning project applying CBPR may receive a 4th unit.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Minkler

**PB HLTH 219D Social and Behavioral Health Research: Introduction to Survey Methods 3 Units**

This course provides students with a thorough tool kit for designing survey questionnaires and for implementing telephone, face-to-face, and mail surveys. The three-hour weekly class sessions are designed to convey practical knowledge, with a case study approach used to complement each topical lecture. An SPSS laboratory is also given each semester. The course is an elective for Health and Social Behavior students, and many from the multidisciplinary program and other tracks in the school (including UCSF, e.g., nurses in their Ph.D. programs) have often enrolled as well. By the end of the semester, students will have designed, as their class project, a research project including a study design rationale, aims and hypotheses, data collection methods and measures, human subjects consent form, codebook and analysis plan.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Karriker-Jaffe

**PB HLTH 219E Introduction to Qualitative Methods in Public Health Research 3 Units**

This course is designed to familiarize students who have little or no experience in conducting qualitative research with the perspectives, methods, and techniques of a vast and contentious tradition of research. The course will cover some of the methods of data collections used in the conduct of qualitative inquiries, the analysis of textual data, the write-up of findings from qualitative studies, and the development of a qualitative research proposal. While learning about qualitative methods, students will gain an understanding of the qualitative research literature on a topic of their choice, as well as how to integrate findings from a variety of qualitative studies on a research question of topic.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Miller

**PB HLTH W219 Social and Behavioral Health Research: Introduction to Survey Methods 3 Units**

This course provides students with a thorough tool kit for designing survey questionnaires and for implementing telephone, face-to-face, mail, and internet surveys. The two three-hour, weekly class sessions are designed to convey practical knowledge with a case study approach used to complement the topical lectures. An SPSS laboratory also is given each semester.

**Hours & Format**

**Fall and/or spring:** 7 weeks - 6 hours of web-based lecture per week

**Online:** This is an online course.

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Karriker-Jaffe

**PB HLTH 220 Health Policy Decision-Making 3 Units**

Introduction to federal-level health policy and analysis of government capacity in addressing major issues in health policy. The course explores structural impediments to reform in the US, regulatory decision-making -- particularly decision-making under conditions of uncertainty, and basic tools of policy analysis. Students will apply these tools in a seminar paper that analyzes a proposed or existing health policy or program.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Sentell

**PB HLTH 220C Health Risk Assessment, Regulation, and Policy 4 Units**

This course introduces the basic scientific components of environmental and occupational health risk assessment and describes the policy context in which decisions to manage environmental health risks are made. The course presents the quantitative methods used to assess the human health risks associated with exposure to toxic chemicals, focusing on the four major components of risk assessment: hazard identification, dose-response assessment, exposure assessment, and risk characterization. Students use these tools to develop their own risk assessment for an environmental health problem. The course also provides a broad overview of occupational and environmental health regulations with consideration of how hazard, risk, cost, and benefits are considered. Current political controversies about environmental policy will be examined.

**Rules & Requirements**

**Prerequisites:** 250A, 270A-270B recommended. Graduate standing

**Hours & Format**

**Fall and/or spring:** 15 weeks - 4 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Hammond, McKone

**PB HLTH 220D Health Policy Advocacy 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. Students will develop research, organization, and coalition-building skills necessary to produce an effective advocacy campaign. The course identifies the roles of those involved in the making of policy and demonstrates the use of appropriate channels and technologies to influence health policy change.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Snyder

**PB HLTH 220E Global Health Policy 2 or 3 Units**

This course will provide an intensive introduction to current topics in international health policy. Students in the course will become familiar with the major actors, institutions, and regimes that shape international health policy. The course will also introduce students to theories of governance as they apply to international settings and evaluate the relative roles of state actors, NGOs, and international regimes in producing key health policy outcomes. The course will cover several current issues in international health and will require students to critically assess the state of policy with respect to these issues. Using Bardach's method for policy analysis, students will analyze current policies and propose policy alternatives with an assessment of the tradeoffs implied in choosing a given policy option over its competitors.

**Rules & Requirements**

**Prerequisites:** Graduate standing

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Keller

**PB HLTH 220F Health Workforce and Public Policy 2 Units**

This course focuses on three interrelated issues: How do we determine when we have too many or too few health care workers to provide high quality and cost effective care? What are the factors that determine the supply and distribution of health care workers? What are the methods that can be used to increase the performance and productivity of health care workers? We will review recent evidence on the supply, quality, and cost of the health workforce in California, the U.S., and globally. Approaches to the public and private financing of medical education will also be analyzed. This course is taught in a seminar format with lectures, visiting speakers, and student presentations.

**Rules & Requirements**

**Prerequisites:** Graduate standing

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Scheffler

**PB HLTH 220G Advocacy in Action 3 Units**

This course trains students in the mechanisms of effective policy change. Students are placed in ongoing, real world advocacy campaigns, and students receive mentoring from university instructors as well as field preceptors. The class teaches advocacy tools that students can leverage in their future careers, whether for governmental redress or improving systems within organizations. The lens employed in the class is the improvement of public health through advocacy.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture and 8 hours of fieldwork per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Snyder, True

**PB HLTH 221 Mental Health Policies, Programs, and Services 2 Units**

This course provides a foundation for understanding mental illness and mental health services and the evolution and current state of our thinking about them. It presents the most frequent varieties of mental illness and addresses their frequency of occurrence, and it addresses the social disability from mental illness and the societal response to mental illness. It also considers treatments, services, effectiveness, quality of care, and financing, as well as considering financing, legal issues, and special concerns and services for children and youth. In addition, the course provides a forum to critically examine the knowledge base on mental illness, epidemiology, policies, programs, and services as it presents major controversies and highlights the best available evidence.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Snowden

**PB HLTH 221B Understanding and Overcoming Health Care Disparities 2 Units**

In this class, we will construct a framework to formulate explanations for health care disparities and to construct responses that have the potential for a policy-oriented, and therefore widespread, response. Taking advantage of selected developments in social science theory and research that can provide insight into how health care disparities come about, we will draw from anthropological and psychological theories of cultural orientation, cultural framing of problems, and cultural identity; as well as drawing from psychological theories of stress and coping. We also will draw from sociological theories of individual and community poverty, and theories characterizing health care system design and service delivery.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Snowden

**PB HLTH 222A Health Care Technology Policy 2 Units**

The course examines the public policy institutions and processes influencing innovation, regulation, and payment for biotechnology, pharmaceuticals, and medical devices. Topics include technology transfer and patent law, the Food and Drug Administration (FDA) review for safety and efficacy, insurance coverage policy at the Center for Medicare and Medicaid Services (CMS), coverage, payment, and benefit by private insurers for new technology, and cost-effectiveness analysis. Special topics vary from year to year. Examples and case studies are drawn from all three of the technology sectors.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Robinson

**PB HLTH 223A Introduction to the Health Care System 3 Units**

An intensive introduction that will provide students with an understanding of the structure, financing, and special properties of health services delivery. The course will analyze the larger management and policy issues that drive reform efforts.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Raube

**PB HLTH 223B Cases in Health Management 3 Units**

This is an advanced course in health management. It is intended for master's degree students in the Division of Health Policy and Management who have already completed their field residency. The course consists of analyses and discussions of cases highlighting complex managerial issues in health care delivery, E-health, biotechnology, and other health-related organizations. The cases used in the class will provide the student with real-world management problems, choices, and information. The key task for the student is to develop solutions to problems and propose actions using the information in the case. The case discussions will draw on the student's knowledge of health organizations and current health policies and the skills the student has acquired in operational management, strategic management, ethical analysis, health politics and policy analysis, and interpersonal communication.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Rundall

**PB HLTH 223C Strategic Management and the Organization of Health Services 2 or 3 Units**

The overall purpose of this course is to assist the student in managing health care organizations from a strategic perspective. This is accomplished by systematically addressing systemwide, organization-wide, group- and individual-level issues in strategy formulation, content, implementation, and performance. Emphasis is placed upon the manager's role in simultaneously taking into account a wide variety of internal and external factors to improve organization and system performance in meeting the health needs of individuals and communities. Emphasis is also placed on the development and implementation of strategies to meet multiple stakeholder demands, with particular attention given to continuous quality improvement/total quality management approaches. The course will cover a wide variety of health care organizations including physician group practices, health systems, hospitals, HMOs, suppliers, pharmaceutical and biotech companies. The course builds on Business Administration 205: Organizational Behavior and 223A: Medical Care Organization.

**Rules & Requirements**

**Prerequisites:** Business Administration 205 or 224A and 223A or consent of instructor. Students are required to have a general background knowledge of the health services system

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Shortell, Oxendine

**PB HLTH 223D Foundations of Health Policy and Management 2 Units**  
This course is designed as a first semester seminar for master's students in the Division of Health Policy and Management. The purposes of this course are fourfold: 1) to provide an overview of the U.S. medical and health care systems; 2) to provide an introduction to basic concepts and competencies in health policy analysis and health management; 3) to provide internship preparation and career development activities; and 4) to provide opportunities to develop relationships with 1st- and 2nd-year HPM students and with faculty, alumni, and healthcare leaders.

**Rules & Requirements**

**Prerequisites:** Graduate standing in Health Policy and Management or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Oxendine, Solomon

**PB HLTH 223E Capstone Seminar in Health Policy and Management 2 Units**

This course is an integrative seminar that builds on the core curriculum requirements of the school and HPM specialty. Participants are master's degree students advancing to candidacy. After sharing their internship experiences and the impact on career decisions, the students are required to draw on situations from their internship to demonstrate what they have learned by leading fellow seminar participants in facilitated discussions, culminating in a specific management recommendation or policy position. Students will gain exposure to a range of HPM issues based on the experiences of their peers. Each student is also required to produce a 20-page paper and prepare and deliver a formal presentation to seminar participants and invited faculty. The paper will address an HPM topic of interest that has been selected by the student and approved by the course faculty and the student's academic advisor. Suggested formats for the paper are a policy or strategic management analysis, but other options may be proposed and approved by the instructor.

**Rules & Requirements**

**Prerequisites:** Graduate standing in HPM and completion of 297 internship

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Solomon

**PB HLTH 223F Effective Public Health Negotiations 2 Units**  
The ability to secure enduring agreements is an essential skill for a successful public health leader. This course integrates lecture and experiential components to expose students to major theories and specific tactics that underlie effective negotiating. It offers the opportunity to develop the skills needed to build awareness of personal styles. Students will be evaluated on their understanding of relevant theory and their ability to apply it in individual and team-based negotiations.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** MacPherson, Oxendine

**PB HLTH W223 Strategic Management and the Health Sector 3 Units**  
The overall purpose of this course is to assist the student in managing healthcare organizations from a strategic perspective. This is accomplished by systemically addressing systemwide, organization-wide, group- and individual-level issues in strategy formulation, content, implementation, and performance. The course will cover a wide variety of health care organizations including physician group practices, health systems, hospitals, HMOs, suppliers, pharmaceutical and biotech companies.

**Hours & Format**

**Fall and/or spring:** 7 weeks - 6 hours of web-based lecture per week

**Online:** This is an online course.

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Shortell

**PB HLTH 224A Health Care Organizations and Management 3 Units**  
Introduction to health administration, focusing on theories of management, organizations, and environments as they relate to the administration of health services. Cases, simulation, and structured experiences will be used to tie theory to practice.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Bloom

**PB HLTH 224C Advanced Health Care Organizations and Environments 3 Units**

This course examines major theories and frameworks for analyzing health care organizations. Emphasis is given to the application and testing of theories in the health care sector. Theories to be examined include bureaucracy, contingency theory, culture and climate, resource dependence, institutional theory, and theories of change and innovation. The seminar will rely on extensive student participation.

**Rules & Requirements**

**Prerequisites:** 224A or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Bloom

**PB HLTH W224 Health Care Organizations and Management 3 Units**  
Today, the health care system consists of a mixture of organizational forms that plan, regulate, and deliver medical care and other health services. The objective of this course is to consider 1) the structure of these organizations and the factors that affect their performance, as well as their growth and decline and 2) the role that health care managers play in the organizations in which they work.

**Hours & Format**

**Fall and/or spring:** 7 weeks - 6 hours of web-based lecture per week

**Online:** This is an online course.

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Bloom

**PB HLTH 225 Legal Basis for Health Care Delivery 3 Units**  
This is a course for nonlawyers in legal issues in the organization and delivery of health care, including regulation, fraud and abuse, physician arrangements, Medicare, managed care, privacy, malpractice, patient dumping, health care organizations, contracts, etc. Students will gain an appreciation of the interaction of law, policy, and health care delivery. Case studies, including an extended contract negotiation and medical-legal cases, will focus on the application and communication of legal principles in complex but common health care decision-making situations.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor. No legal experience or training required

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Lipman

**PB HLTH 226A Health Economics 3 Units**

This course introduces students to the economics of health and health care. In addition to familiarizing students with the language and tools of health economics, the course will provide an overview of key institutional features of the health economy as well as important research findings in the field. These will be used to evaluate the economic logic and incentives in competing proposals for health care reform.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 1.5 hours of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Robinson

**PB HLTH 226B Microeconomics of Health Care Policy 3 Units**

An economic and policy analysis of the health care system. It examines integration of the health care delivery system and the impact of competition and regulation on providers and patients. Alternative models of health care system reform are presented and analyzed.

**Rules & Requirements**

**Prerequisites:** A recent graduate course in microeconomics, a second-level undergraduate course in microeconomics, or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 1.5 hours of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Dow

**PB HLTH 226C Public Health and the Economy 3 Units**

An introduction to the literature that suggests that the performance of a regional economy affects the health of the population it supports. Controversies in the theoretical and empirical literature are discussed. The implications of the work for public health practice are discussed.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Catalano, Dow

**PB HLTH 226D Global Health Economics 3 Units**

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.

**Rules & Requirements**

**Prerequisites:** Graduate standing and knowledge of health policy and consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Scheffler

**PB HLTH 227A Health Care Finance 3 Units**

This course covers finance and strategic financial management in the health services and products industry, including provider organizations, insurance firms, and biopharmaceutical and medical device companies. Cases are used to apply the financial analysis and planning skills learned in the course. Topic areas include financial statement analysis, pricing and service decisions, debt financing, venture capital, and private equity, IPO and public equity markets, risk and return, capital budgeting and project risk assessment, mergers and acquisitions, vertical and horizontal integration.

**Rules & Requirements**

**Prerequisites:** Graduate standing

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** MacPherson

**PB HLTH 229 Public Health and the Law 3 Units**

This is an introductory course for nonlawyers in selected aspects of the law relating to public health. Major attention is paid to fundamental legal principles and legal reasoning, recurring legal issues confronted by health professionals, and the use of law to advance a public health agenda. Emphasis is placed on giving students tools to use when they encounter law-related problems in their professional careers. The course is intended for students in all divisions of the School of Public Health.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor. No previous legal experience or training necessary

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Ashe, Simpson

**PB HLTH 230 Advanced Health Politics 3 Units**

Critical analysis of selected issues in health policy. Topics include political ideology and health policy, interest group politics in health, Marxist and materialist interpretation of health policy, and the politics of health care technology, implementation, bureaucracy, and health professions.

**Rules & Requirements**

**Prerequisites:** 220A or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Halpin

**PB HLTH 231A Analytic Methods for Health Policy and Management 3 Units**

This course provides an overview of analytic methods that Master's students in health policy and management should be familiar with. Topics include linear regression, limited dependent variable models such as logit, design, and analysis of complex surveys (with weighted and clustered sampling), and quasi-experimental causal analysis. The course complements 245, with an emphasis on enabling nonstatisticians to interpret and critique applications in the HPM literature.

**Rules & Requirements**

**Prerequisites:** 142 or equivalent (basic probability and statistics)

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Dow

**PB HLTH 231C Health Care Operations and Management Methods 3 Units**

This course will introduce students to basic operations research/management (OR/OM) methods and discuss how they can be applied in health care delivery settings. The class uses a problem-based, participatory approach to learning. Data management and analysis are conducted using Excel and STATA. Topics include process reengineering and job redesign, productivity and performance management, linear programming and operational decision-making, staffing and job scheduling, patient flow analysis, queuing theory and applications, forecasting, and supply chain management.

**Rules & Requirements**

**Prerequisites:** PB HLTH 142 (<http://guide.berkeley.edu/search/?P=PB%20HLTH%20142>) or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Rodriguez

**PB HLTH 232 Doctoral Seminar in Public Health Applications of Time Series Analysis 3 Units**

An introduction to time-domain analyses of potential interest to public health researchers and practitioners. Applications in forecasting and hypothesis testing will be demonstrated.

**Rules & Requirements**

**Prerequisites:** Doctoral standing or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture and 1 hour of laboratory per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Catalano

**PB HLTH C233 Healthy Cities 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. Inquiry to influences of urban population health, analysis of determinants, and roles that city planning and public health agencies - at local and international level - have in research, and action aimed at improving urban health. Measures, analysis, and design of policy strategies are explored.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Corburn

**Formerly known as:** City and Regional Planning 256

**Also listed as:** CY PLAN C256

**PB HLTH C234 Green Chemistry: An Interdisciplinary Approach to Sustainability 3 Units**

Meeting the challenge of global sustainability will require interdisciplinary approaches to research and education, as well as the integration of this new knowledge into society, policymaking, and business. Green Chemistry is an intellectual framework created to meet these challenges and guide technological development. It encourages the design and production of safer and more sustainable chemicals and products.

**Rules & Requirements**

**Prerequisites:** One year of chemistry, including a semester of organic chemistry, or consent of instructors based on previous experience

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Summer:** 6 weeks - 20 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Arnold, Bergman, Guth, Iles, Kokai, Mulvihill, Schwarzman, Wilson

**Also listed as:** CHEM C234/ESPM C234

**PB HLTH 235 Impact Evaluation for Health Professionals 3 Units**

This course will review the methods for the design and analysis of impact evaluations relevant to health professionals, especially those working in low and middle-income countries. The class will emphasize the challenges involved in identifying the causal relationship between a program or project and its outcomes while providing students with some experience in drafting a proposal that might be submitted to a funding agency for support of an impact evaluation. For doctoral students the course may help concretely to identify potential dissertation projects; for masters students the course will provide skills useful in obtaining a future job in the field.

**Rules & Requirements**

**Prerequisites:** Public Health 142 or equivalent Probability and Statistics course

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Colford, Gertler

PB HLTH 236 U.S. Food and Drug Administration, Drug Development, and Public Health 2 Units

The process and principles of drug development will be discussed in the context of the FDA's mandate and reach (basic science, pre-clinical and clinical research, policy, law, and public health), emphasizing the impact of public health emergencies such as HIV on evolution of regulatory policies.

**Rules & Requirements**

**Prerequisites:** None

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Miller, Strobos

PB HLTH C240A Introduction to Modern Biostatistical Theory and Practice 4 Units

Course covers major topics in general statistical theory, with a focus on statistical methods in epidemiology. The course provides a broad theoretical framework for understanding the properties of commonly-used and more advanced methods. Emphasis is on estimation in nonparametric models in the context of contingency tables, regression (e.g., linear, logistic), density estimation and more. Topics include maximum likelihood and loss-based estimation, asymptotic linearity/normality, the delta method, bootstrapping, machine learning, targeted maximum likelihood estimation. Comprehension of broad concepts is the main goal, but practical implementation in R is also emphasized. Basic knowledge of probability/statistics and calculus are assumed.

**Rules & Requirements**

**Prerequisites:** Statistics 200A (may be taken concurrently)

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 2 hours of laboratory per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Hubbard

**Also listed as:** STAT C245A

PB HLTH C240B Biostatistical Methods: Survival Analysis and Causality 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. Topics include marginal estimation of a survival function, estimation of a generalized multivariate linear regression model (allowing missing covariates and/or outcomes), estimation of a multiplicative intensity model (such as Cox proportional hazards model) and estimation of causal parameters assuming marginal structural models. General theory for developing locally efficient estimators of the parameters of interest in censored data models. Computing techniques, numerical methods, simulation and general implementation of biostatistical analysis techniques with emphasis on data applications.

**Rules & Requirements**

**Prerequisites:** Statistics 200B (may be taken concurrently)

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 2 hours of laboratory per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** van der Laan

**Also listed as:** STAT C245B

PB HLTH C240C Biostatistical Methods: Computational Statistics with Applications in Biology and Medicine 4 Units

This course provides an introduction to computational statistics, with emphasis on statistical methods and software for addressing high-dimensional inference problems in biology and medicine. Topics include numerical and graphical data summaries, loss-based estimation (regression, classification, density estimation), smoothing, EM algorithm, Markov chain Monte-Carlo, clustering, multiple testing, resampling, hidden Markov models, in silico experiments.

**Rules & Requirements**

**Prerequisites:** Statistics 200A or equivalent (may be taken concurrently)

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 2 hours of laboratory per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Dudoit

**Also listed as:** STAT C245C

**PB HLTH C240D Biostatistical Methods: Computational Statistics with Applications in Biology and Medicine II 4 Units**

This course and Pb Hlth C240C/STAT C245C (<http://guide.berkeley.edu/search/?P=STAT%20C245C>) provide an introduction to computational statistics with emphasis on statistical methods and software for addressing high-dimensional inference problems that arise in current biological and medical research. The courses also discuss statistical computing resources, with emphasis on the R language and environment ([www.r-project.org](http://www.r-project.org)). Programming topics to be discussed include: data structures, functions, statistical models, graphical procedures, designing an R package, object-oriented programming, inter-system interfaces. The statistical and computational methods are motivated by and illustrated on data structures that arise in current high-dimensional inference problems in biology and medicine.

**Rules & Requirements**

**Prerequisites:** Statistics 200A-200B or Statistics 201A-201B (may be taken concurrently) or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 2 hours of laboratory per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Dudoit

**Also listed as:** STAT C245D

**PB HLTH C240E Statistical Genomics 4 Units**

Genomics is one of the fundamental areas of research in the biological sciences and is rapidly becoming one of the most important application areas in statistics. This is the first course of a two-semester sequence, which provides an introduction to statistical and computational methods for the analysis of meiosis, population genetics, and genetic mapping. The second course is Statistics C245F/Public Health C240F. The courses are primarily intended for graduate students and advanced undergraduate students from the mathematical sciences.

**Rules & Requirements**

**Prerequisites:** Statistics 200A and 200B or equivalent (may be taken concurrently). A course in algorithms and knowledge of at least one computing language (e.g., R, matlab) is recommended

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 1 hour of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Dudoit, Huang, Nielsen, Song

**Also listed as:** STAT C245E

**PB HLTH C240F Statistical Genomics 4 Units**

Genomics is one of the fundamental areas of research in the biological sciences and is rapidly becoming one of the most important application areas in statistics. The first course in this two-semester sequence is Public Health C240E/Statistics C245E. This is the second course, which focuses on sequence analysis, phylogenetics, and high-throughput microarray and sequencing gene expression experiments. The courses are primarily intended for graduate students and advanced undergraduate students from the mathematical sciences.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 1 hour of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Dudoit, Huang, Nielsen, Song

**Also listed as:** STAT C245F

**PB HLTH 241 Statistical Analysis of Categorical Data 4 Units**

Biostatistical concepts and modeling relevant to the design and analysis of multifactor population-based cohort and case-control studies, including matching. Measures of association, causal inference, confounding interaction. Introduction to binary regression, including logistic regression.

**Rules & Requirements**

**Prerequisites:** 142 or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 2 hours of laboratory per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Jewell

**PB HLTH 242A Biometrical Data Analysis--Pathological Incomplete Data and Pattern Recognition 4 Units**

Survey of classical methods; mixture, clustered, grouped, incomplete, Cox-model, and truncated data simulation and analysis.

**Rules & Requirements**

**Prerequisites:** 140, 142, and 145 or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 2 hours of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Tarter

**PB HLTH 242B Biometrical Data Analysis--Model Free Curve Estimation 4 Units**

Generalized histograms and Gram-Charlier expansions; series inclusion and stopping rules, multiplier and weighting techniques, nonparametric regression, variance reduction, smoothing, and equiprobability contour estimation methods and other graphical methods.

**Rules & Requirements**

**Prerequisites:** 140, 142, and 145 or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 2 hours of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Tarter

**PB HLTH C242C Longitudinal Data Analysis 4 Units**

The course covers the statistical issues surrounding estimation of effects using data on subjects followed through time. The course emphasizes a regression model approach and discusses disease incidence modeling and both continuous outcome data/linear models and longitudinal extensions to nonlinear models (e.g., logistic and Poisson). The primary focus is from the analysis side, but mathematical intuition behind the procedures will also be discussed. The statistical/mathematical material includes some survival analysis, linear models, logistic and Poisson regression, and matrix algebra for statistics. The course will conclude with an introduction to recently developed causal regression techniques (e.g., marginal structural models). Time permitting, serially correlated data on ecological units will also be discussed.

**Rules & Requirements**

**Prerequisites:** 142, 145, 241 or equivalent courses in basic statistics, linear and logistic regression

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 2 hours of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Hubbard, Jewell

**Also listed as:** STAT C247C

**PB HLTH 243A Special Topics in Biostatistics 1 - 3 Units**

Current issues in biostatistics research. Topics will vary from term to term depending on student demand and faculty availability. Possible topics are bioassay, meta-analysis, compartmental models, biostatistical consulting, covariance structure models, bootstrap and jackknife methods, artificial intelligence techniques in biostatistics.

**Rules & Requirements**

**Prerequisites:** 240A and 240B

**Hours & Format**

**Fall and/or spring:** 15 weeks - 1-3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**PB HLTH 243C Information Systems in Public Health 2 Units**

An introduction to new information systems, such as the Internet and interactive television, and how they may be used to improve human health. The course has three objectives: first, to familiarize students with new information technologies; second, to review how these technologies will be used by public health professionals, consumers, health care providers, and others; and third, to study related ethical and legal issues such as privacy, access, and liability. The course is designed for people with minimal understanding of interactive technologies.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Van Brunt

**PB HLTH 243D Special Topics in Biostatistics: Adaptive Designs 3 Units**

This course examines the theory and statistical methods for analyzing data generated by adaptive group sequential designs. It also considers the construction of targeted adaptive group sequential designs that adapt in a way that is optimal for the estimation of a particular target feature of the data generating experiment (i.e., causal effect of the treatment). Topics to be covered include: sequential testing, adaptive sample size, martingale estimating functions to construct estimators, targeted maximum likelihood estimation for adaptive designs, targeted Bayesian learning for adaptive designs, martingale theory for the analysis of estimators for adaptive designs.

**Rules & Requirements**

**Prerequisites:** Prior biostatistics or statistics course or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** van der Laan

**PB HLTH 245 Introduction to Multivariate Statistics 4 Units**

The following topics are discussed in the context of biomedical and biological application: multiple regression, loglinear models, discriminant analysis, principal components. Instruction in statistical computing is given in the laboratory session.

**Rules & Requirements**

**Prerequisites:** 145 or equivalent or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 2 hours of laboratory per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Lahiff

**PB HLTH C246A Censored Longitudinal Data and Causality 4 Units**

This course examines optimal robust methods for statistical inference regarding causal and non-causal parameters based on longitudinal data in the presence of informative censoring and informative confounding of treatment. Models presented include multivariate regression models, multiplicative intensity models for counting processes, and causal models such as marginal structural models and structural nested models. Methods will be illustrated with data sets of practical interest and analyzed in the laboratory section. This course, appropriate for advanced masters and Ph.D. students, provides exposure to a number of ongoing research topics.

**Rules & Requirements**

**Prerequisites:** 240B, Statistics 200A-200B or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 2 hours of laboratory per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** van der Laan

**Also listed as:** STAT C249A**PB HLTH 248 Statistical/Computer Analysis Using R 3 Units**

The material presented will focus on learning the programming language R, which will be taught in the context of reviewing and introducing a number of statistical methods. Four topic areas will be presented focusing on implementation; these are descriptive methods, simulation techniques, linear models, and estimation. The goal of the course is to provide a package of statistical techniques along with new and advanced computer tools for implementation.

**Rules & Requirements**

**Prerequisites:** Statistics 200A (may be taken concurrently) or 142, 145, and 245

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Selvin

**Formerly known as:** 249

**PB HLTH 250A Epidemiologic Methods I 3 Units**

Principles and methods of epidemiology: study design, selection, and definition of cases and controls; sampling, data collection, analysis, and inference. Discussion session provides an opportunity to apply methods to problem sets and to discuss issues presented in lectures.

**Rules & Requirements**

**Prerequisites:** 142 (may be taken concurrently)

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 1 hour of discussion per week

**Summer:** 6 weeks - 12 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Reingold, Smith

**PB HLTH 250B Epidemiologic Methods II 4 Units**

This course is intended as an intermediate level course in the field of epidemiology. Topics include causal inference; measurement of disease rates; inferential reasoning; and research study designs including ecologic, case-control, cohort, intervention trials, and meta-analytic designs (potential sources of bias, confounding, and effect modification in each research design are explored in depth); topics in clinical epidemiology including the use of likelihood ratios, receiver operator curves, and the sensitivity, specificity, predictive value of a test; and a brief introduction to logistic regression, survival analysis, and decision analysis. The readings from this course are drawn primarily from advanced epidemiology textbooks (Kleinbaum, Rothman, Miettinen). The course is intended to provide a firm foundation for students who will subsequently enroll in 250C.

**Rules & Requirements**

**Prerequisites:** 250A or an equivalent introductory course in epidemiology or advanced degree (M.D., Ph.D., D.V.M.) in a biomedical field

**Hours & Format**

**Fall and/or spring:** 15 weeks - 4 hours of lecture and 2 hours of laboratory per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Ahern or Colford (alternating years)

**PB HLTH 250C Epidemiologic Theory 4 Units**

This course is a continuation of 250B. The course covers many of the same topics as 250B but explores them in greater breadth and depth. Topics that follow from 250B include causal inference; the interrelation between measures of disease frequency; the theory that underlies case-control studies and the practical issues that relate to implementation of case-control studies; and further exploration of the quantitative aspects of bias, confounding, propensity scores, and measurement error. An introduction to the theory of ecological studies and mixed model analysis also are provided. Readings are primarily from the epidemiologic methods literature, and problems are based on the evaluation of published data. The course is divided into a series of modules that range in length from 1-4 weeks: causal inference/models of causality; epidemiologic measures of disease occurrence and their inter-relations; standardization of rates; bias and validity--general consideration; misclassification/measurement error; confounding; matching; case-control studies; ecological studies.

**Rules & Requirements**

**Prerequisites:** 241, 245, 250B, or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 4 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Tager

**PB HLTH W250 Epidemiologic Methods I 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. Through the combination of lecture, readings, and discussion of problem sets, students without prior coursework in epidemiology will acquire the core competencies in epidemiology expected of all MPH graduates.

**Rules & Requirements**

**Prerequisites:** Concurrent or previous enrollment in an introductory biostatistics course (e.g., W142)

**Hours & Format**

**Fall and/or spring:** 7 weeks - 6 hours of web-based lecture per week

**Online:** This is an online course.

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Tager

**PB HLTH 251A Practicum in Epidemiologic Methods I 4 Units**

A two-semester sequence intended for students in the Epidemiology/Biostatistics MPH program and other qualified graduate students. This is a practicum course in research design data analysis. Students select a research question and learn practical skills to analyze a large database in order to answer the research question. The course teaches use of CMS and SAS in performing univariate analyses; students also learn critically to review scientific literature. Students are required to complete computer assignments, an oral presentation of a literature review with handouts for class, a final presentation (as would be presented at a scientific meeting), and a final report in a style for a publishable manuscript.

**Rules & Requirements**

**Prerequisites:** 250A; 145 or 241B concurrently; consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 1 hour of laboratory per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Eskenazi

**PB HLTH 251C Causal Inference and Meta-Analysis in Epidemiology 2 Units**

This course will review the theoretical aspects of causal inference, literature review, and meta-analysis, but its focus will be more on the practical aspects of these topics that are not commonly found in textbooks or presented in classes on epidemiologic theory. It is hoped that the student develops the day-to-day skills necessary to complete and present a well-documented, accurate, and thorough review of epidemiologic literature.

**Rules & Requirements**

**Prerequisites:** Students in the first semester of the second year of the epidemiology/biostatistics Master's of Public Health program. (Students from other programs welcome.)

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** A. Smith, Steinmaus

**PB HLTH 251D Applied Epidemiology Using R 2 Units**

This is an intensive, one-semester introduction to the R programming language for applied epidemiology. R is a freely available, multi-platform (Mac OS, Linux, and Windows, etc.), versatile, and powerful program for statistical computing and graphics (<http://www.r-project.org>). This course will focus on core basics of organizing, managing, and manipulating epidemiologic data; basic epidemiologic applications; introduction to R programming; and basic R graphics.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Aragon

**PB HLTH 252 Epidemiological Analysis 3 Units**

This course consists of two distinct components: (1) advanced treatment of epidemiologic methods: matched data, spatial analysis, logistic and Poisson regression models; (2) survival analysis: Kaplan-Meier estimation, survival distributions, parametric and semi-parametric survival analysis models. Students are encouraged to concurrently enroll in 248L which carries the prerequisite of a working knowledge of the statistical computing language R.

**Rules & Requirements**

**Prerequisites:** 245, 250A, or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Selvin

**PB HLTH 252A Applied Sampling and Survey Design and Analysis 3 Units**

This course will cover the basic principles and methods of sampling and survey design. The weekly lecture will cover the principles of sampling and include a discussion of various case studies. The computer laboratory will consist of exercises that develop skills for using computers to draw samples and to solve sampling problems. The material covered in the computer laboratory session will generally correspond to the topics covered in the preceding class meetings.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture and 2 hours of laboratory per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Piazza

**PB HLTH 252B Modeling the Dynamics of Infectious Disease Processes**  
2 - 4 Units

This course will cover the basic tools required to both critically read modeling papers and to develop and use models as research tools. Emphasis will be placed on using models to understand infectious disease processes and to evaluate potential control strategies. The class meeting will consist of both lecture material covering conceptual issues and a computer lab to apply these concepts using standard infectious disease models.

**Rules & Requirements**

**Prerequisites:** Calculus (e.g. MATH 1A (<http://guide.berkeley.edu/search/?P=MATH%201A>)-1B), statistical programming packages (247, 249, or equivalent)

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture and 3 hours of laboratory per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Porco

**PB HLTH 252C Intervention Trial Design 3 Units**

Students learn (through lectures and graded student presentations and projects) to design clinical and population-level field trials. Topics: formulation of a testable hypothesis; identification of appropriate populations; blinding (including indices for assessment); randomization (including traditional and adaptive randomization algorithms); sample-size estimation; recruitment strategies; data collection systems; quality control and human subjects responsibilities; adverse effects monitoring; improving participant adherence; use of surrogate outcomes.

**Rules & Requirements**

**Prerequisites:** 245 and 250A (may be taken concurrently)

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Colford

**PB HLTH 252D Introduction to Causal Inference 4 Units**

This course presents a general framework for causal inference using directed acyclic graphs, non-parametric structural equation models, and counterfactuals. Marginal structural models and causal effect estimation using inverse probability of treatment weighting, G-computation, and targeted maximum likelihood are introduced. In two-part presentations, students will define and implement research questions.

**Rules & Requirements**

**Prerequisites:** 241 or C240A (can be taken concurrently); 245 or similar course covering multivariable linear and logistic regression analysis; for epidemiology students, 250C, or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture and 2 hours of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Petersen

**PB HLTH 252E Advanced Topics in Causal Inference 3 Units**

The course will be conducted as a seminar with readings and discussions on a range of more advanced topics. We will cover case-control designs; longitudinal causal models, identifiability and estimation; direct and indirect effects; dynamic regimes (individualized treatment rules); approaches for diagnosing and responding to violations in the positivity assumption. Additional topics may include stochastic interventions, community-based interventions, and Collaborative-TMLE. There will also be some guest lectures and presentations from current students and faculty members.

**Rules & Requirements**

**Prerequisites:** Public Health 252D or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture, 1 hour of discussion, and 1 hour of laboratory per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Petersen

**PB HLTH 253A Topics in Disease Surveillance 2 Units**

Ways of doing surveillance for infectious and non-infectious diseases; how the reasons for doing surveillance determine the system selected; and how to evaluate whether or not a given surveillance is providing the data needed to meet various goals. The impact of various biases on the conclusions derived from surveillance data will be explored.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of session per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Rutherford

**PB HLTH 253B Epidemiology and Control of Infectious Diseases 3 Units**

A discussion of major infectious diseases with emphasis on disease surveillance, investigative procedures, and prevention programs. Emphasis is on current problems in health agencies at a state, national, and international level.

**Rules & Requirements**

**Prerequisites:** Prior degree or courses in biomedical sciences and consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Reingold

**PB HLTH C253 Foundations of Public Health 2 Units**

The seminar will introduce core disciplines and concepts in public health, using a case-based, integrated approach. Examples of cases discussed include: respiratory disease and air pollution; tobacco control and prevention of smoking-related conditions; disease elimination or eradication via childhood immunization; environmental control and prevention of schistosomiasis; behavior change and prevention of HIV/AIDS; and novel economic approaches to improving healthcare delivery to impoverished groups.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Reingold, Smith

**Also listed as:** DEVP C232

**PB HLTH 253D Behavior and Policy Science in HIV Treatment and Prevention 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. Throughout the academic term, students will apply knowledge of behavioral science, epidemiology, quantitative and qualitative methods in the analysis of developing and evaluating HIV-related treatment and prevention interventions, including policy interventions. Course requirements will include the preparation of a major paper recommending interventions, country level budgets and evaluation designs for a specific developing country. Specific requirements for this paper will be distributed during the third class session.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Ekstrand, Morin

**PB HLTH 253E Ethical Challenges in Public Health Interventions:****Catastrophic and Routine 2 Units**

This course aims to enhance course participants' ability to articulate and examine ethical issues surrounding responses to public health/healthcare challenges whether routine or during catastrophe. Discussions will be based on presentations and assigned readings for the class, and with an expectation that students will incorporate their own diverse views and approaches to moral and logistical challenges.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Kayman

**PB HLTH 253F Foundations of Public Health 2 Units**

The seminar will introduce core disciplines and concepts in public health, using a case-based, integrated approach. Examples of cases discussed include: respiratory disease and air pollution; tobacco control and prevention of smoking-related conditions; disease elimination or eradication via childhood immunization; environmental control and prevention of schistosomiasis; behavior change and prevention of HIV/AIDS; and novel economic approaches to improving healthcare delivery to impoverished groups.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Reingold, Smith

**PB HLTH 253G Sexual Health Promotion and Sexually Transmitted Disease Control 2 Units**

This seminar will explore current issues and controversies in public health approaches to sexual health promotion and STD control with a focus on pragmatic skills including program development and evaluation. Students will engage in independent research with interactive group discussions and student presentations.

**Rules & Requirements**

**Prerequisites:** Graduate students, undergraduates with consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Offered for satisfactory/unsatisfactory grade only.

**Instructor:** Bernstein

PB HLTH 254 Occupational and Environmental Epidemiology 3 Units  
Epidemiological methods for designing, conducting, and interpreting epidemiological studies of persons occupationally or environmentally exposed to chemical and physical agents.

**Rules & Requirements**

**Prerequisites:** 250A

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of session per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** A. Smith

**Formerly known as:** 254B

**PB HLTH 255A Social Epidemiology 3 Units**

This course is designed to introduce students to the field of social epidemiology and its role in understanding the social determinants of population health and health disparities. This course will provide a systematic and selected overview of literature in the field covering the history and development of the field of social epidemiology, theoretical perspectives, major topical areas, conceptual approaches, and current controversies related to theory, research methods, and research findings. Three principles will be emphasized throughout the course: 1) the ecological model, 2) the lifecourse approach, and 3) causality. These principles will provide a framework for the critical analysis of scholarly journal articles and the synthesis of information across content areas. This is a breadth course intended to provide an overview of the field of social epidemiology; and expose students to relevant areas of study. This is not a methods course.

**Rules & Requirements**

**Prerequisites:** Consent of instructor. 142, 145, and 250A-250B recommended

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Nuru-Jeter

**PB HLTH 255C Mental Health and Psychopathology 3 Units**

This doctoral seminar is designed to provide an understanding of the complex (and often interactive) individual and environmental conditions that increase the risk of psychopathology in individuals across the life span. We will start by learning about general concepts important to an understanding of psychopathology and prevention of psychopathology, including the "biopsychosocial model," "psychological resilience," and different levels of preventive interventions. For each different area of psychopathology, we will consider: a) the core feature of disorder; b) key theory and empirical evidence regarding etiology and course, with a particular emphasis on understanding the range of risk and protective factors on the individual, family, and community level; and c) the implications of etiological understanding for public health efforts to prevent the particular disorder.

**Rules & Requirements**

**Prerequisites:** Open to doctoral students or with consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Ozer

**PB HLTH 255D Methods in Social Epidemiology 2 Units**

This course is designed to review, evaluate, and apply methods currently used in the field of social epidemiology. The course aims to teach approaches to forming clear research questions, and selecting the best method(s) to answer the questions posed. Initially we will discuss approaches to defining clear and specific research questions. We will then discuss recent controversies around the meaning of questions posed in social epidemiology, and the ability of currently used methods to answer questions in social epidemiology. Finally we will review, evaluate, and apply a range of different methods that are or could be used to answer questions in social epidemiology, again emphasizing the types of questions answered by these methods, and their ability to address the challenges to effectively answering questions in social epidemiology. There will be a mixture of discussion and lecture depending on the topic, with student participation and questions strongly encouraged.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Offered for satisfactory/unsatisfactory grade only.

**Instructors:** Ahern, Hubbard

**PB HLTH 255E Structural Inequalities and Reproductive Health 2 Units**

This course will address the role that structural inequalities assume in shaping reproductive health disparities. We will examine relevant epidemiological research, review and critique public health interventions, and discuss how research in this area can inform policy. The course will be organized around three modules, each linked to reproductive health: poverty, gender-based violence, and migration. Within each module, students will examine measurement, research design, and ethical challenges.

**Rules & Requirements**

**Prerequisites:** 250A or equivalent, background in reproductive health

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Dunbar, Krishnan, Minnis

**PB HLTH 256 Molecular and Genetic Epidemiology and Human Health in the 21st Century 4 Units**

This course will cover basic principles of human/population genetics and molecular biology relevant to understanding approaches to molecular and genetic epidemiology: approaches to genome-wide association studies; application of biomarkers to define exposures; recent developments in genomics, epigenomics and other -omics, including next generation sequencing technology and genomics in personalized medicine and health. Hands-on computer and wet laboratory will provide experience with modern research tools.

**Rules & Requirements**

**Prerequisites:** College-level biology course or consent of instructor. Introductory biostatistics recommended

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture and 1 hour of laboratory per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Barcellos, Holland

**PB HLTH 257 Outbreak Investigation 2 Units**

This course will teach students why and how clusters of illnesses/epidemics are investigated. Methods and approaches required for such investigations will be discussed in detail, using published articles from the scientific literature to provide examples.

**Rules & Requirements**

**Prerequisites:** 250A, 250B, or an equivalent introductory course in epidemiologic methods

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Offered for satisfactory/unsatisfactory grade only.

**Instructor:** Reingold

**PB HLTH 257B Public Health Preparedness & Emergency Response 3 Units**

This one semester course is an intensive introduction to public health emergency preparedness and response, and covers the following topic areas: the role of public health in disasters, natural disasters and severe weather, intentional mass threats (CBRNE), detecting and monitoring public health threats, post-disaster sampling, surveys, rapid needs assessments, public health emergency incident management system, emergency operations planning and exercises, infectious disease emergency readiness, environmental health emergency readiness, mental health emergency readiness, special needs and vulnerable populations, essentials of public health leadership during a disaster, essentials of crisis risk communication, essentials of investigating outbreaks, disaster medicine and mass casualty care, and personal and community disaster preparedness.

**Rules & Requirements**

**Prerequisites:** Completion of one semester of graduate public health curriculum or in public health practice

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Aragon

**PB HLTH N257 Outbreak Investigations 2 Units**

This intensive course covers the essential knowledge, skills, and abilities to conduct an epidemiologic field investigation including concepts for controlling infectious diseases; the epidemiologic approach and steps to public health action; conducting an outbreak investigation; conducting post-disaster rapid health assessments; field sampling design and implementation; field survey design and implementation; design and management of field database systems; and analysis of outbreak modules using a computer laboratory. The computer lab component will emphasize basic analysis and interpretation.

**Rules & Requirements**

**Prerequisites:** Consent of instructor

**Hours & Format**

**Summer:** 3 weeks - 15 hours of lecture and 15 hours of laboratory per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Aragon

**PB HLTH W257 Public Health Preparedness and Emergency Response 3 Units**

This one semester course is an intensive introduction to public health emergency preparedness and response, and covers the following topic areas: the role of public health in disasters; natural disasters and severe weather; intentional mass threats (CBRNE); biosurveillance: detecting and monitoring public health threat; post-disaster sampling, surveys, and rapid needs assessments; public health emergency incident management systems; emergency operations planning and exercises.

**Rules & Requirements**

**Prerequisites:** Completion of one semester of graduate public health curriculum, or in public health practice

**Hours & Format**

**Fall and/or spring:** 7 weeks - 6 hours of web-based lecture per week

**Online:** This is an online course.

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Aragon

**PB HLTH 258 Cancer Epidemiology 3 Units**

For students with a basic understanding of epidemiology, biostatistics, and tumor biology. An introduction to the epidemiology of some major site-specific cancers, considering epidemiological approaches to the study of their causation, and implementation will be discussed.

**Rules & Requirements**

**Prerequisites:** Public Health 150A or 250A

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Metayer

**PB HLTH 258B Ethical Issues in Epidemiology Research 3 Units**

Ethical issues are as important for the field of epidemiology as they are for all human endeavors. Of special concern to epidemiologists are: informed consent, privacy and confidentiality, academic freedom, contractual obligations, beneficence and non-maleficence, scientific misconduct, and fraud. These are but a few of the issues being addressed currently by epidemiologists and which will be considered in this course.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Offered for satisfactory/unsatisfactory grade only.

**Instructor:** Buffler

**PB HLTH W258 Global Health Disaster Preparedness and Response 3 Units**

This course is designed to serve the emerging field of global disaster management. Topics include the analysis of past mega-disasters; global disaster trends; hazard identification, profiling, and analysis; concepts of risk and vulnerability and risk evaluation; structural and non-structural mitigation; multi-level disaster preparedness; pre-, peri-, and post-disaster response, including the provision of water, food, and shelter, and the management of volunteers; components of recovery, disaster effects on communities and societies; participation of governmental, non-governmental, and multilateral agencies and organizations in planning and response; role of the media, including social media.

**Rules & Requirements**

**Repeat rules:** if receive D or F grades

**Hours & Format**

**Summer:** 6 weeks - 7 hours of web-based lecture per week

**Online:** This is an online course.

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Gershon

**PB HLTH 259A History of Epidemiology 3 Units**

This course traces the development of epidemiological methodology and theory from the "Golden Age" of Greece in the sixth century B.C. to modern practice at the turn of the 21st century. Consideration will also be given to historical events such as major epidemics and important research activities. The course provides students preparing for academic careers in epidemiology the background to teach and research the field. Case studies will be a major vehicle for accomplishing the course objectives. Original readings will be discussed.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Offered for satisfactory/unsatisfactory grade only.

**Instructors:** Winkelstein, Jr.

**PB HLTH 259B Practical Applications of Epidemiologic Methods in Developing Countries 3 Units**

Practical application of epidemiologic methods in the developing country settings, including surveillance, surveys, case-control studies, and intervention trials. The applications of these methods to the study of infectious and non-infectious disease problems common in developing countries will be presented.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Reingold

**PB HLTH 260A Principles of Infectious Diseases 4 Units**

This course presents general principles of microbial interactions with humans that result in infection and disease. Common themes are developed using examples of viral, bacterial, and parasitological pathogens that exemplify mechanisms of infectious disease. The epidemiology, pathogenesis, host immune response, diagnosis, treatment, and control will be presented for each infectious disease discussed.

**Rules & Requirements**

**Prerequisites:** Upper division course preparation in biology

**Hours & Format**

**Fall and/or spring:** 15 weeks - 4 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Riley, Swartzberg

**PB HLTH 260B Principles of Infectious Diseases 4 Units**

This course presents general principles of microbial interactions with humans that result in infection and disease. Common themes are developed using examples of viral, bacterial, and parasitological pathogens that exemplify mechanisms of infectious disease. The epidemiology, pathogenesis, host immune response, diagnosis, treatment, and control will be presented for each infectious disease discussed.

**Rules & Requirements**

**Prerequisites:** Upper division course preparation in biology

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Riley, Swartzberg

PB HLTH 260C Infectious Disease Laboratory 2 or 4 Units  
Module 1: Practice in standard techniques for the isolation, identification, and characterization of infectious agents; laboratory safety. Module 2: Application of molecular methods to the identification and characterization of infectious agents, vectors, and hosts.

**Rules & Requirements**

**Prerequisites:** 260A or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 6 hours of laboratory and 4 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Loretz, Sensabaugh

**PB HLTH 260E Molecular Epidemiology of Infectious Diseases 2 - 3 Units**

The course will cover general principles and practical approaches in the use of molecular laboratory techniques to address infectious disease epidemiologic problems. It is designed for students with experience in the laboratory or in epidemiology, but not both. The principles to be discussed will include the use of molecular techniques in outbreak investigations, characterizations of dynamics of disease transmission, identifying vehicles, and quantifying attributable risks in sporadic infections, refining data stratification to assist case-control studies, distinguishing pathogens from non-pathogenic variants of organisms, doing surveillance, and identifying genetic determinants of disease transmissions. 3-units if a five-page paper completed.

**Rules & Requirements**

**Prerequisites:** 150A

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and .5 hours of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Riley

**PB HLTH 260F Infectious Disease Research in Developing Countries 2 Units**

The objective of this course is to provide M.P.H. and Ph.D. students with an appreciation and understanding of the complex issues involved in conducting scientific, laboratory-based investigation in developing countries. We will discuss the many obstacles to establishing and sustaining research projects, such as poor infrastructure, insufficient financial and material resources, and lack of scientific information and interaction. More importantly, we will identify innovative solutions to overcoming these obstacles. The first half of the course will consist of presentations by U.S. and developing countries investigators who have long-term research experience in Latin America, Asia, and Africa. We will also discuss related issues such as ethical considerations, equitable collaborations, research capacity strengthening. During the second half of the course, students will give presentations on topics of their choice.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Harris

**PB HLTH 261 Advanced Medical Virology 3 - 4 Units**

Analysis of viral and host factors that play a role in viral diseases of medical importance. Four units of credit given to doctoral students who write a research proposal on a topic other than that proposed for their dissertation.

**Rules & Requirements**

**Prerequisites:** Consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 4 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Liu

**PB HLTH 262 Molecular and Cellular Basis of Bacterial Pathogenesis 3 Units**

This course for graduate students will explore the molecular and cellular basis of bacterial pathogenesis. The emphasis will be on model bacterial pathogens of mammals. The course also will include some aspects of bacterial genetics and physiology, immune response to infection, and the cell biology of host-parasite interactions. Taught concurrently with. Students enrolled in 262 also will be required to attend a weekly discussion of the primary literature, both current and classic. Each student will be required to present one paper.

**Rules & Requirements**

**Prerequisites:** 260A, 260B, or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Portnoy

**PB HLTH 263 Public Health Immunology 3 Units**

This course will be the principal immunology course for students in the field of public health. It is designed to teach both the basic biology of the human immune system and its response in health and disease, especially the specific response of the human immune system to major human pathogens. Four areas will be explored: 1) components of the immune system (spectrum of cell types and cell products); 2) different arms of the immune system including humoral, cell-mediated, innate, and mucosal immunity; 3) specific immune response to infection caused by viral, bacterial, fungal, and parasitic pathogens; and 4) disorders of the immune system unrelated to infectious disease. Through this course, students should not only gain a basic understanding of the human immune system, but also learn the functions and responses of the human immune system to diseases of infectious and non-infectious nature, and the relevance of these interactions in the context of public health problems.

**Rules & Requirements**

**Prerequisites:** 260A (prior or concurrent). Graduate standing. Public Health majors by consent of instructor

**Credit Restrictions:** Students will receive no credit for 263 after taking Molecular and Cell Biology 150.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Stanley

**PB HLTH 264 Current Issues in Infectious Diseases 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.

**Rules & Requirements**

**Prerequisites:** Second-year Infectious Diseases MPH students only

**Hours & Format**

**Fall and/or spring:** 15 weeks - 1 hour of lecture and 1 hour of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Sensabaugh

**Formerly known as:** 264A-264B

**PB HLTH 265 Molecular Parasitology 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. The lectures will focus on "state-of-the-art" research in relation to molecular mechanisms of pathogenesis, parasite adaptations for survival within the host, and strategies for drug and vaccine development and disease control and prevention. Course content will rely heavily on current literature.

**Rules & Requirements**

**Prerequisites:** Upper division courses in molecular biology, parasitology, biochemistry, immunology, microbiology, or consent of instructor. Familiarity with reading primary research is recommended

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 10 weeks - 3 hours of lecture and 2 hours of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Harris

**PB HLTH 266 Viruses and Human Cancer 2 - 3 Units**

Topics include the basic biology of cancer; molecular biology of tumor viruses; mechanisms of viral carcinogenesis; characteristics of virally transformed cells; the challenge of proving the viral etiology of human cancers; the epidemiology, pathology, diagnosis, treatment, and prevention of virally caused human cancers. The course format will include lectures and reading/discussion of original research publications. To be taken for three units if a term paper is written and for two units without a term paper.

**Rules & Requirements**

**Prerequisites:** Course in basic virology or microbiology

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Buehring

**PB HLTH 266A Foodborne diseases 2 Units**

This course will cover public health, microbiological, social, and economical issues related to foodborne diseases. Three areas will be explored: 1) categories, clinical manifestations, and disease processes of foodborne illnesses; 2) etiological agents causing foodborne illnesses; 3) investigation and prevention of foodborne illness. The course will discuss different types of foodborne diseases, clinical manifestations, and the interactions between etiological agents (pathogens and non-pathogens) and human hosts. We will cover pathogens that are the most frequently associated with foodborne illness including bacterial and viral pathogens such as Salmonella, E coli, hepatitis viruses and Norwalk-like gastroenteritis viruses. We will also study non-pathogen agents such as heavy metal, pesticide, and toxic chemicals. Furthermore, the course will discuss how to identify the etiological agents in outbreaks and possible measures that can be taken to minimize the risk to the public including vaccines and education. Finally, we will explore the social and economic issues involved in the food production, distribution, and consumption that contribute to foodborne diseases.

**Rules & Requirements**

**Prerequisites:** Basic knowledge of microbiology

**Hours & Format**

**Fall and/or spring:** 15 weeks - 1.5 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Lu

**PB HLTH 266B Zoonotic Diseases 2 Units**

This is a graduate (Ph.D. and MPH) level course designed to describe the major zoonoses and their life cycle, disease manifestations, epidemiology, and methods for prevention and control. Available treatments, diagnostics, and public health and agriculture surveillance and “forecasting” programs will also be discussed. The most recent research on the molecular and cellular basis of the mechanisms and consequences of the “species” jump from other animals to humans will be reviewed. The global nature of zoonotic diseases and the integration of multiple disciplines (molecular biology, immunology, epidemiology, evolutionary biology, ecology, animal science, veterinary medicine, etc.) will be emphasized.

**Objectives Outcomes**

**Course Objectives:** Recognize, understand and be able to describe the public health importance of presented zoonotic diseases  
Understand the agent’s life cycle (agent, host, and environment interaction), including the source(s) or reservoir(s) and host range  
Understand the factors involved in the susceptibility and resistance of the human host to the cross-species transmission of disease

**Rules & Requirements**

**Prerequisites:** Public Health 260A or equivalent Infectious Diseases course (may be taken concurrently)

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Dailey

**PB HLTH 266C Hospital Associated Infections 2 Units**

This course will look at and evaluate the principles underlying the control of infections in hospitals, the causes of these infections, current important topics in this field and future trends. Students will gain an appreciation of the national and local programs involved in HAI’s, their major causes, antimicrobial control, and specific agents and procedures causing HAI’s.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 1 hour of lecture and 1 hour of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Swartzberg

**PB HLTH 267B Characterization of Airborne Contaminants 4 Units**

Principles underlying the use of air monitoring methods in industry and the environment. Topics include behavior of gases, vapors, and aerosols; mechanisms of absorption and elimination of inhaled toxicants; methods for measuring of airborne chemicals and particles.

**Rules & Requirements**

**Prerequisites:** Graduate standing in environmental health sciences or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 3 hours of fieldwork per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Hammond

**PB HLTH 267D Health Impact Assessment 3 Units**

Health Impact Assessment (HIA) refers to a diverse set of analytic and communicative practices that aim to inform and improve social decisions in order to improve the environmental, economic, and social conditions required for optimal population health. This course provides an introduction to HIA with a focus on the need for and application of HIA to land use and transportation planning and development. The objectives of the course include understanding and comparing the range of practices used to conduct Health Impact Assessments in the U.S. and internationally; identifying the opportunities and obstacles for using the environmental impact assessment as vehicles for health analysis; and development and application of environmental health assessment tools to inform decision-making as part of a class project.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Seto

**PB HLTH 269D Ergonomics Seminar 2 Units**

Readings and lectures in occupational biomechanics. Topics to be covered are muscle, tendon, and joint biomechanics, material handling models, mechanisms of injury, hand tool design, and instrumentation issues. Students will prepare critical reviews of recent publications and design an engineering intervention to reduce work-related risk factors.

**Rules & Requirements**

**Prerequisites:** 269C or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Rempel

**PB HLTH 269E Current Topics in Environmental Medicine 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. The course will cover established environmental diseases as well as impacts of some emerging exposures of concern. The focus will primarily be on pathophysiology, issues related to exposure pathways, and the susceptibilities of specific human populations. No prior medical knowledge required.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2-3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Harrison, Seward

**PB HLTH 270 Introduction to Environmental Health Sciences 3 Units**

This survey course covers the breadth of hazards to chemical, biological, and physical agents of concern to environmental health professionals. Lectures are presented by experts on particular topics that emphasize the activities involved in professional practice. Students will also meet twice monthly with the instructor to discuss advanced readings and assignments related to the lecture topics. Students will conduct a project on a topic of current interest in some aspect of environmental health (under the guidance of the instructor). This course is designed for MPH students in Environmental Health Sciences and other graduate-level students interested in an overview course on environmental health.

**Rules & Requirements**

**Prerequisites:** One epidemiology course; one biostatistics course (may be taken concurrently). One Epidemiology course; one Biostatistics course, can be concurrent.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 2 hours of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Balmes

**PB HLTH 270A Exposure Assessment and Control 3 Units**

Direct and indirect methods and procedures for the estimation and control of human exposure to chemical, physical, and biological agents of concern to health in the community and in occupational settings. Includes review of measurement technologies, exposure assessment strategies, and multipathway analyses used by regulatory agencies. Also covers exposure control options and strategies, including administrative procedures, personal protective equipment, and various engineering control approaches.

**Rules & Requirements**

**Prerequisites:** Graduate standing in the School of Public Health or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Nicas, Spear

**PB HLTH 270B Toxicology I 3 Units**

Introduction to toxicology covering basic principles, dose-response, toxicity testing, chemical metabolism, mechanisms of toxicity, carcinogenesis, interpretation of toxicological data for risk assessment, and target organ toxicity.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** M. Smith

**PB HLTH 270C Practical Toxicology 2 Units**

This course will focus on cutting-edge issues involving real-world toxicology in drug discovery, pesticide regulation, stem cell research, etc. Many well-known toxicologists, regulators, and consultants from pharmaceutical companies, petroleum industry, private consulting firms, non-profit institutes, federal and state regulatory agencies in the Bay Area will be invited to talk to our participating students. Some of the speakers are our school's alumni who understand exactly what our students need to know before entering the real world. Learning outside the classroom will be another major focus and different from other existing toxicology courses offered at Berkeley. This new class will provide students a chance to visit some of the real-world sites allowing students to see and feel what they really need to know and to learn. To better prepare our students for the real world, we will use combined teaching/learning styles including lecture with discussion sections, site-visits, hand-on experience in a toxicology laboratory, and student group assignments or projects.

**Rules & Requirements**

**Prerequisites:** 270B or Nutrition Science and Toxicology 110 or equivalent course in toxicology

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Zhang

**PB HLTH C270B Advanced Toxicology 3 or 4 Units**

The application of toxicology to answer questions about safety and risk. Using a case-study approach, participants will learn how to interpret toxicological data and apply their knowledge to evaluating the risk presented by exposures to toxic chemicals, including drugs and environmental contaminants. Discussion of current topics of controversy in the field of toxicology.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3-4 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Smith

**Also listed as:** NUSCTX C219

**PB HLTH 271C Drinking Water and Health 3 Units**

The course covers monitoring, control and regulatory policy of microbial, chemical and radiological drinking water contaminants. Additional subjects include history and iconography of safe water, communicating risks to water consumers and a bottled water versus tap water taste test as part of the discussion on aesthetic water quality parameters.

**Objectives Outcomes**

**Student Learning Outcomes:** By the end of this course, students will be expected to:

Recognize the global occurrence of waterborne contaminants and related health impacts.

Understand water quality monitoring and control of key water quality constituents.

Appreciate the complexities of the regulatory process as it pertains to public drinking water systems in the US and abroad.

Read and synthesize published and unpublished sources of information regarding drinking water and health. Prepare a literature review in journal submission format.

Using an established rubric, review and comment on a literature review (prepared by a fellow student). Rank the paper as acceptable, acceptable with minor revision, acceptable with major revision, unacceptable.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Smith

**PB HLTH C271G Health Implications of Climate Change 3 Units**

The course will provide a basic foundation in the physical mechanisms of, responses to, and health implications of climate change. We will explore the variety of epidemiologic, risk assessment, and statistical methods used to understand the impacts of climate change on health across diverse demographic groups. The public health implications, positive and negative, of efforts to mitigate and adapt to climate change will be elaborated, including discussions of ethical, political, and economic aspects of these efforts. Students will be responsible for leading class discussions and presenting a poster on their choice of a topic related to climate change and health.

**Rules & Requirements**

**Prerequisites:** The material will be presented with minimal expectation of a background in physical science, although some additional reading may be needed for students with no university science courses. A background in epidemiology is also helpful, but not necessary

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Jerrett, Morello-Frosch

**Also listed as:** ESPM C282

**PB HLTH 271D Global Burden of Disease and Comparative Risk Assessment 3 Units**

The Global Burden of Disease (GBD) database utilized by provides estimates of illness, injury, and death by disease type, age, sex, and world region in a consistent and coherent manner. The course will explore the ways such a detailed database makes possible a wide range of new types of analysis of health priorities and the relationship of database will also be introduced. This seminar will also provide an opportunity for reading and discussion of the basic assumptions, data limitations, critiques, and methodological difficulties of the GBD. It is intended to be a true seminar relying heavy on class participation. The homework assignments will be greatly facilitated by use of computer spreadsheets.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor. Introductory epidemiology (250A or equivalent) is recommended

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** K. Smith

**PB HLTH 271E Science and Policy for Environment and Health 3 Units**

Scientific knowledge and analyses are important to the development of public policies that address the impact of the environment on health. The limits of existing knowledge and uncertainties in research results create significant challenges in applying science to answer critical questions. This course critically examines how scientific information is used in policy decisions. Case studies of current issues address characterization of scientific knowledge, interpretation of science in policy contexts, scientific integrity, and factors in addition to science that influence decisions. Assignments prepare students to effectively translate technical knowledge for multi-disciplinary and lay audiences and to participate in public policy proceedings. Core materials address differences between regulatory and market-based approaches; emerging paradigms including the precautionary principle and environmental justice; and key elements of risk assessment and cost-benefit analysis.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Kyle

**PB HLTH 271G Global Environmental Change for Health Scientists 1 or 2 Units**

The course will first provide a basic foundation in the physical and societal basis of climate change, including atmospheric structure and feedbacks, carbon cycling, and the sources and trends of human and natural greenhouse pollutant emissions. Forecasts of future climate, and their uncertainties, will be discussed, emphasizing parameters of potential relevance to human health. We will explore epidemiologic, risk assessment, and statistical methods appropriate for understanding the impact of climate on health in different populations, including reviews of current burden of disease estimates of avoidable and attributable risk. The public health implications, positive and negative, of society's efforts to mitigate and adapt to climate change will be elaborated, including discussions of ethical, political, and economic aspects. The one-unit version ends before the spring break. Students in the two-unit version will continue and be responsible for formal class presentations summarizing and critiquing the evidence based on a health outcome related to climate change.

**Rules & Requirements**

**Prerequisites:** An introductory course in epidemiology is strongly suggested

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture and 1 hour of discussion per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Jerrett, Smith

**PB HLTH 272A Geographic Information Science for Public and Environmental Health 4 Units**

Geographic information systems (GIS) have emerged as an important tool for performing health and environmental analyses. GIS is generally seen as a spatial analysis system for the organization, storage, retrieval, and analysis of data for which the location and other spatial attributes are considered important (e.g., incidence of a specific disease condition in relation to a pollution source). GIS also encompasses the organizational structure, personnel, software, and hardware needed to support spatial analysis. For many health and social scientists, GIS has evolved into a new lens for viewing their work. The course will provide students with an introduction to this exciting and expanding field of inquiry. On successful completion of the course you should possess the following skills and knowledge: 1) A basic understanding of the fundamental geographic and cartographic concepts that underlie GIS. 2) Working knowledge of ArcGIS, a powerful "desktop" GIS software package that runs in a Windows environment. 3) Introductory knowledge of past, present, and possible future applications of GIS for health and environmental studies.

**Rules & Requirements**

**Prerequisites:** Introductory statistics course or equivalent

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture and 2 hours of laboratory per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Jerrett

**PB HLTH 272B Case Studies in Environmental and Occupational Epidemiology 2 Units**

Using published studies as examples, we will focus on key epidemiologic methods as they arise in the study of environmental hazards in the community and workplace. Selected topics include the validity of exposure assessment for both community-based and workplace-based studies, specific forms of selection bias (e.g., healthy worker survivor effect), measurement error (e.g., exposure misclassification), time varying confounding, and analytical methods to model exposure-response (e.g., person-years, causal models, spatial analysis, and nonlinear models) in environmental and occupational epidemiology. Grades will be based on class participation, homework, and final project.

**Rules & Requirements**

**Prerequisites:** Public Health 250C and 241

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Buffler, Eisen, Hammond

**PB HLTH 275 Current Topics in Vaccinology 2 Units**

This is an advanced level course designed to cover current issues related to the biological and analytical aspects of vaccine development and utilization. Latest developments in recombinant vaccine technology, vaccine delivery systems, "naked DNA" vaccines, "designer" vaccines, new adjuvants, anti-tumor vaccines, epidemiological approaches to assess vaccine efficacy, effectiveness, and safety will be discussed and covered.

**Rules & Requirements**

**Prerequisites:** 250A, 260A, and 264 or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Riley, Enanoria

**PB HLTH 276 Integrity in the Conduct of Research 2 Units**

This course presents an analysis of the core issues for the responsible and ethical conduct of research in biomedical sciences. Issues pertinent to standards and responsibilities of research conduct, authorship and publication practices, peer review and privileged information, conflicts of interest, collaboration, and use of animals and humans in research will be defined and explored. The legal and regulatory structures, definitions of misconduct and process of misconduct investigations will be presented.

**Rules & Requirements**

**Prerequisites:** Graduate students in good standing

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Stephens

**PB HLTH 281 Public Health and Spirituality 2 Units**

This course presents a brief introduction to the emerging field of spirituality and health. We examine scholarly and scientific views of links between spirituality, religion, and health. Topics include highlights and overviews of the rapidly emerging scientific evidence base, public health relevance, collaborations with faith-based organizations, and other practical applications.

**Rules & Requirements**

**Prerequisites:** Completion or concurrent enrollment in at least one other course in public health, or consent of instructor

**Hours & Format**

**Fall and/or spring:** 10 weeks - 2 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Oman

**PB HLTH 282 Topics in the History of Medicine and Public Health 2 or 3 Units**

A series of lectures and seminars providing detailed scrutiny of selected topics in the history of medicine, public health, and the allied health sciences. The precise content will vary from year to year and may reflect, in part, topics of class interest. Students electing to take the course for 3 units will be assigned a research topic.

**Rules & Requirements**

**Prerequisites:** Consent of instructor

**Repeat rules:** Course may be repeated for credit with consent of instructor. Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Hook

**PB HLTH 285A Public Health Injury Prevention and Control 2 Units**  
Injuries are a major and often neglected health problem with substantial human and economic costs. Injuries are the leading cause of death from the first year of life to age 45, and the leading cause of lost potential years of life. This course provides an historical and conceptual framework within which to consider injuries (both intentional and unintentional) as social, and public health problems. Through review of epidemiology and intervention studies, course work will consider the causes and consequences of traumatic injury within developmental, social and economic contexts. Particular emphasis is placed on alternative strategies for injury prevention and on the relative benefits of intervention at different levels.

**Rules & Requirements**

**Prerequisites:** Consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Ragland

**PB HLTH C285 Traffic Safety and Injury Control 3 Units**  
This course applies principles of engineering, behavioral science, and vision science to preventing traffic collisions and subsequent injury. A systematic approach to traffic safety will be presented in the course, and will include (1) human behavior, vehicle design, and roadway design as interacting approaches to preventing traffic crashes and (2) vehicle and roadway designs as approaches to preventing injury once a collision has occurred. Implications of intelligent transportation system concepts for traffic safety will be discussed throughout the course.

**Rules & Requirements**

**Prerequisites:** Graduate standing or consent of instructor

**Hours & Format**

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Ragland

**Also listed as:** CIV ENG C265

**PB HLTH 288C Preventive Medicine Residency Seminar: Managed Care and Preventive Medicine 1 Unit**

This seminar is required for preventive medicine residents, but is also open to other physicians and medical students interested in preventive medicine and public health practice. It provides an overview of preventive medicine practice, especially those areas covered by the American Board of Preventive Medicine examination in public health and preventive medicine. The objectives of this seminar are to review basic principles and practices of health care organization and financing, quality assurance, clinical practice guidelines, clinical preventive services and health care delivery for the underserved and to describe the role of the preventive medicine physician in health care organizations.

**Rules & Requirements**

**Prerequisites:** MD or medical student

**Credit Restrictions:** Two hours of seminar per week for eight weeks.

**Hours & Format**

**Fall and/or spring:** 8 weeks - 2 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Rutherford, Seward

**PB HLTH 288D Preventive Medicine Residency Seminar: Public Administration 1 Unit**

This seminar is required for preventive medicine residents, but is also open to other physicians and medical students interested in preventive medicine and public health practice. It provides an overview of preventive medicine practice, especially those areas covered by the American Board of Preventive Medicine examination in public health and preventive medicine. The objectives of this seminar are to review basic principles and practices of public administration as they relate to the management of a governmental public health agency and to describe the role of the preventive medicine physician as a leader and administrator in those agencies.

**Rules & Requirements**

**Prerequisites:** MD or medical student. MD or medical student

**Credit Restrictions:** Two hours of seminar per week for eight weeks.

**Hours & Format**

**Fall and/or spring:** 8 weeks - 2 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructors:** Rutherford, Seward

**PB HLTH W289 Interdisciplinary Health Seminar 3 Units**

This hybrid seminar course consists of both online and face-to-face instruction, with the objective of mastering, at least partially, the following competencies: basic leadership skills for public health leaders, ability to design and conduct a needs assessment and stakeholder analysis, the ability to critically analyze a public health journal article, the ability to conduct an ethical analysis in public health, basic negotiation skills, and the ability to complete a Human Subjects Protocol (IRB) application.

**Hours & Format**

**Fall and/or spring:** 7 weeks - 5 hours of web-based lecture, 4 hours of lecture, and 4 hours of web-based discussion per week

**Summer:** 6 weeks - 5 hours of web-based lecture, 4 hours of lecture, and 4 hours of web-based discussion per week

**Online:** This is an online course.

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**Instructor:** Hosang

**PB HLTH 290 Health Issues Seminars 1 - 4 Units**

A discussion of current developments and issues in public health of interest to faculty and students of the department as a whole. Content varies from semester to semester depending upon current issues and interests.

**Rules & Requirements**

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 1-4 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** The grading option will be decided by the instructor when the class is offered.

**PB HLTH 291A Preparation for Public Health Practice 1 Unit**

A series of skills-based workshops designed to introduce the student to specialized skills needed in the public health workplace. These workshops are designed to complement the core curriculum of the School of Public Health and are selected based on regular feedback from faculty, public health practitioners, and students. Workshop facilitators include consultants, CPHP field supervisors, and public health practitioners with expertise in the subject. This course or series of workshops is open to all M.P.H. and Dr.Ph. students. The student selects from a list of two-hour workshops to total 1 unit equal to 15 hours of class time, plus readings that are assigned for many of the workshops. Workshop topics have included writing for publication, moderating focus groups, human resources management, legislative policy and advocacy, negotiation, evaluation, tools for financial planning, scientific grant writing, leadership, oral presentations, strategic planning, cultural competency, time management, and budgeting.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of workshop per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Offered for satisfactory/unsatisfactory grade only.

**Formerly known as:** 291

**PB HLTH 292 Seminars for M.P.H. Students 1 - 4 Units**

Current topics and special issues in the health field.

**Rules & Requirements**

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 1-4 hours of seminar per week

**Summer:** 6 weeks - 2.5-10 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** The grading option will be decided by the instructor when the class is offered.

**PB HLTH 293 Doctoral Seminar 1 - 4 Units**

Discussion and analysis of dissertation research projects, as well as of conceptual and methodological problems in planning and conducting health research.

**Rules & Requirements**

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 1-4 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** The grading option will be decided by the instructor when the class is offered.

**PB HLTH 295 Seminars 1 - 4 Units****Rules & Requirements**

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 4 hours of seminar per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**PB HLTH 296 Special Study 1 - 10 Units**

Designed to permit any qualified graduate student to pursue special study under the direction of a faculty member.

**Rules & Requirements**

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 1-10 hours of independent study per week

**Summer:** 8 weeks - 1.5-18 hours of independent study per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Letter grade.

**PB HLTH 297 Field Study in Public Health 1 - 12 Units**

Supervised experience relevant to specific aspects of public health in off-campus organizations for graduate students. Regular individual meetings with faculty sponsor and written reports required.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 1-12 hours of fieldwork per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Offered for satisfactory/unsatisfactory grade only.

**PB HLTH N297 Field Study in Public Health 0.0 Units****Hours & Format****Summer:**

8 weeks - 1-6 hours of fieldwork per week

10 weeks - 1-6 hours of fieldwork per week

12 weeks - 1-6 hours of fieldwork per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Offered for satisfactory/unsatisfactory grade only.

**PB HLTH N297A Field Study in Public Health 1 - 6 Units****Hours & Format****Summer:**

8 weeks - 1-6 hours of fieldwork per week

10 weeks - 1-6 hours of fieldwork per week

12 weeks - 1-6 hours of fieldwork per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Offered for satisfactory/unsatisfactory grade only.

**PB HLTH N297B Field Study in Public Health: Environmental Health Sciences 1 - 6 Units****Hours & Format****Summer:**

8 weeks - 1-6 hours of fieldwork per week

10 weeks - 1-6 hours of fieldwork per week

12 weeks - 1-6 hours of fieldwork per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Offered for satisfactory/unsatisfactory grade only.

PB HLTH N297C Field Study in Public Health: Epidemiology/Biostatistics  
1 - 6 Units

**Hours & Format**

**Summer:**

8 weeks - 1-6 hours of fieldwork per week  
10 weeks - 1-6 hours of fieldwork per week  
12 weeks - 1-6 hours of fieldwork per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Offered for satisfactory/unsatisfactory grade only.

PB HLTH N297D Field Study in Public Health: Health Policy and  
Management 1 - 6 Units

**Hours & Format**

**Summer:**

8 weeks - 1-6 hours of fieldwork per week  
10 weeks - 1-6 hours of fieldwork per week  
12 weeks - 1-6 hours of fieldwork per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Offered for satisfactory/unsatisfactory grade only.

PB HLTH N297E Field Study in Public Health: Maternal and Child Health  
1 - 6 Units

**Hours & Format**

**Summer:**

8 weeks - 1-6 hours of fieldwork per week  
10 weeks - 1-6 hours of fieldwork per week  
12 weeks - 1-6 hours of fieldwork per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Offered for satisfactory/unsatisfactory grade only.

PB HLTH N297F Field Study in Public Health: Nutrition 1 - 6 Units

**Hours & Format**

**Summer:**

8 weeks - 1-6 hours of fieldwork per week  
10 weeks - 1-6 hours of fieldwork per week  
12 weeks - 1-6 hours of fieldwork per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Offered for satisfactory/unsatisfactory grade only.

PB HLTH N297G Field Study in Public Health: Health and Social  
Behavior 1 - 6 Units

**Hours & Format**

**Summer:**

8 weeks - 1-6 hours of fieldwork per week  
10 weeks - 1-6 hours of fieldwork per week  
12 weeks - 1-6 hours of fieldwork per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Offered for satisfactory/unsatisfactory grade only.

PB HLTH N297H Field Study in Public Health: Infectious Diseases 1 - 6  
Units

**Hours & Format**

**Summer:**

6 weeks - 1-6 hours of fieldwork per week  
8 weeks - 1-6 hours of fieldwork per week  
10 weeks - 1-6 hours of fieldwork per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** Offered for satisfactory/unsatisfactory grade only.

PB HLTH 298 Group Study 1 - 8 Units

**Rules & Requirements**

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 1-8 hours of independent study per week

**Summer:**

6 weeks - 1-8 hours of independent study per week  
8 weeks - 1-8 hours of independent study per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** The grading option will be decided by the instructor when the class is offered.

**PB HLTH 299 Independent Research 1 - 12 Units**

Independent study and research.

**Rules & Requirements**

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 1-12 hours of independent study per week

**Summer:**

6 weeks - 1-12 hours of independent study per week

8 weeks - 1-12 hours of independent study per week

**Additional Details**

**Subject/Course Level:** Public Health/Graduate

**Grading:** The grading option will be decided by the instructor when the class is offered.

**PB HLTH 375A School of Public Health Schoolwide Pedagogy Course 2 Units**

Skill development and professional preparation for graduate student instructors in public health courses. Preparing for and leading discussion sections. Designing writing prompts. Preparing and creating problem sets. Working with students one-on-one. Grading students' writing and exams. Self assessment. Developing a course syllabus. Use of technology in public health classes. Required for first-time public health GSIs who are not participating in an SPH divisional pedagogy course.

**Rules & Requirements**

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of session per week

**Additional Details**

**Subject/Course Level:** Public Health/Professional course for teachers or prospective teachers

**Grading:** Offered for satisfactory/unsatisfactory grade only.

**Formerly known as:** Public Health 333

**PB HLTH 375B Instructional Techniques in Biostatistics 2 Units**

Discussion and practice of techniques in teaching biostatistics as applied to public health topics.

**Rules & Requirements**

**Repeat rules:** Course may be repeated for credit. Course may be repeated for credit when topic changes.

**Hours & Format**

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Additional Details**

**Subject/Course Level:** Public Health/Professional course for teachers or prospective teachers

**Grading:** Offered for satisfactory/unsatisfactory grade only.

**Instructor:** Lahiff

**Formerly known as:** Public Health 300