

School of Public Health

Overview

The mission of the School of Public Health is to develop and apply knowledge from multiple disciplines for the promotion and protection of the health of the human population, giving due consideration to principles of human rights and cultural perspectives that abound in this multicultural country and world. The school carries out this mission with programs of teaching, research, and service. These programs, grounded in an understanding of the theory and mechanisms of the basic sciences, are integrated through a focus on communities that reach from the neighborhoods surrounding the campus to international settings.

Promotion and protection of the health of human populations require a scientific understanding of epidemiology; biostatistics; and the biological, physical, environmental, social, behavioral, informational, administrative, and policy sciences. In the School of Public Health, these and other disciplines focus on health problems of particular populations, selected diseases or disabilities, and issues associated with the application of resources to public health systems. Faculty, support resources, and curricula focus on both the fundamental disciplines and their applications to particular problems. Within the University and the wider community, faculty strive to advance the understanding of the fundamental disciplines, apply them to problems faced by human populations, and provide the interdisciplinary context in which future public health practitioners and scholars may develop needed skills and capacities.

The program of study leading to the professional MPH degree is based on a series of foundation courses. In addition, MPH students concentrate in one of the following areas: Environmental Health Sciences; Epidemiology; Epidemiology/Biostatistics; Global Health and Environment; Health and Social Behavior; Health Policy and Management; Infectious Diseases and Vaccinology; Interdisciplinary; Maternal and Child Health; and Public Health Nutrition. The Doctor of Public Health (DrPH) curriculum is based on a comprehensive body of knowledge in the field of public health and its related disciplines and the investigation of significant problems in the public health practice. The School of Public Health also offers academic degrees in Biostatistics (<http://guide.berkeley.edu/archive/2021-22/graduate/degree-programs/biostatistics/>) (MA, PhD), Environmental Health Sciences (<http://guide.berkeley.edu/archive/2021-22/graduate/degree-programs/environmental-health-sciences/>) (MS, PhD), Epidemiology (<http://guide.berkeley.edu/archive/2021-22/graduate/degree-programs/epidemiology/>) (MS, PhD), Health and Medical Sciences (<http://guide.berkeley.edu/archive/2021-22/graduate/degree-programs/health-medical-sciences-program/>) (MS), Health Policy (<http://guide.berkeley.edu/archive/2021-22/graduate/degree-programs/health-policy/>) (PhD), and Infectious Diseases & Immunity (<http://guide.berkeley.edu/archive/2021-22/graduate/degree-programs/infectious-diseases-immunity/>) (PhD).

Undergraduate Program

Public Health (<http://guide.berkeley.edu/archive/2021-22/undergraduate/degree-programs/public-health/>): BA (offered under the jurisdiction of the College of Letters and Science), Global Public Health Summer Minor/Certificate

Graduate Programs

Public Health: (<http://guide.berkeley.edu/archive/2021-22/graduate/degree-programs/public-health/>) MPH (Master of Public Health), DrPH (Doctor of Public Health), MA (Biostatistics), MS (Environmental Health Sciences, Epidemiology, Health and Medical Sciences), PhD (Biostatistics, Environmental Health Sciences, Epidemiology, Health Policy, Infectious Diseases & Immunity)

Public Health

Expand all course descriptions [+] Collapse all course descriptions [-]

PB HLTH 14 Healthy People: Introduction to Health Promotion 4 Units

Terms offered: Spring 2016, Spring 2015, Spring 2014

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.

Healthy People: Introduction to Health Promotion: Read More [+]

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

Healthy People: Introduction to Health Promotion: Read Less [-]

PB HLTH 15 Introduction to Global Health Equity 3 Units

Terms offered: Spring 2019, Spring 2018, Spring 2017

This seminar provides an overview of the intersection between global health and social justice, with a specific focus on the ways in which inequity, specifically the conditions that lead to poverty, disproportionately affect health outcomes. Students will learn about the historical and theoretical underpinnings of global health, how social determinants affect medical outcomes and health policy, the principles of international law and health economics, and the structure of health delivery models. In the process, students will engage in topics related to social factors that impact health, including class, race, gender, and poverty. Class discussions will address contemporary global health priorities through the lens of human rights activism.

Introduction to Global Health Equity: Read More [\[+\]](#)

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: LE

Introduction to Global Health Equity: Read Less [\[-\]](#)

PB HLTH 24 Freshman Seminar in Public Health 1 Unit

Terms offered: Spring 2022, Fall 2021, Spring 2021

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.

Freshman Seminar in Public Health: Read More [\[+\]](#)

Rules & Requirements

Repeat rules: Course may be repeated for credit without restriction.

Hours & Format

Fall and/or spring: 15 weeks - 1 hour 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 To be decided by the instructor when the class is offered.

Freshman Seminar in Public Health: Read Less [\[-\]](#)

PB HLTH 84 Sophomore Seminar 1 or 2 Units

Terms offered: Spring 2022, Spring 2020, Spring 2019

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.

Sophomore Seminar: Read More [\[+\]](#)

Rules & Requirements

Prerequisites: At discretion of instructor

Repeat rules: 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 To be decided by the instructor when the class is offered.

Sophomore Seminar: Read Less [\[-\]](#)

PB HLTH 98 Directed Group Study 1 - 4 Units

Terms offered: Spring 2016, Fall 2015, Spring 2015

Directed Group Study: Read More [\[+\]](#)

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 without restriction.

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.

Directed Group Study: Read Less [\[-\]](#)

PB HLTH 99 Supervised Independent Study 1 - 4 Units

Terms offered: Spring 2016, Fall 2015, Spring 2015

Supervised Independent Study: [Read More](#) [+]

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.

Supervised Independent Study: [Read Less](#) [-]

PB HLTH 101 A Sustainable World: Challenges and Opportunities 3 Units

Terms offered: Spring 2022, Fall 2021, Spring 2021

Students now attending Berkeley will confront an extremely different set of challenges than the current faculty experienced. Economic growth cannot continue exponentially in a finite world. Human activity and human numbers threaten the possibility of irreversible damage to the fragile biosphere on which all life depends. In this 3-unit interdisciplinary course, students will focus on finding creative solutions to the problems faced by their generation. Each week, experts will discuss problems and solutions concerning sustainability and climate change that they're passionate about. Topics include energy consumption, food security, population growth and family planning, migration, climate change, policy, and governance.

A Sustainable World: Challenges and Opportunities: [Read More](#) [+]

Objectives & Outcomes

Course Objectives: Find ways to roll back the many political, social, and cultural barriers that stand in the way of developing needed, evidence-based policies and investments.

Identify those behaviors that must change, those public policies that must be put in place and the investments that must be made in order to move the current pattern of unsustainable economic activity to a biologically sustainable one.

Learn to appraise critically different and sometimes conflicting sources of information.

Propose solutions to complex interdisciplinary problems that draw on politics, economics, and philosophy and other social sciences as well as the hard sciences.

Understand how adverse trends- for example in global warming and population growth- can interact in adverse ways, sometimes with considerable rapidity.

Understand that the continued exponential growth in energy consumption and human population growth is unsustainable.

Understand the current rate of destruction of natural resources and biodiversity.

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. Alternate method of final assessment during regularly scheduled final exam group (e.g., presentation, final project, etc.).

Instructors: Maus, van der Walt

A Sustainable World: Challenges and Opportunities: [Read Less](#) [-]

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

Terms offered: Fall 2016, Fall 2015, Fall 2014

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.

Health Promotion in a College Setting: [Read More](#) [+]

Rules & Requirements

Prerequisites: Consent of instructor

Repeat rules: Course may be repeated for credit without restriction.

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

Health Promotion in a College Setting: [Read Less](#) [-]

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

Terms offered: Spring 2017, Spring 2016, Spring 2015

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.

Health Promotion in a College Setting: [Read More](#) [+]

Rules & Requirements

Prerequisites: Consent of instructor

Repeat rules: Course may be repeated for credit without restriction.

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

Health Promotion in a College Setting: [Read Less](#) [-]

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

Terms offered: Summer 2021 First 6 Week Session, Summer 2020 First 6 Week Session, Summer 2019 First 6 Week Session

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. 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. This course will examine violence through the lens of the college campus, paying particular attention to the types of violence more commonly seen on, or associated with, collegiate life, and will include a term paper component.

Violence, Social Justice, and Public Health: [Read More](#) [+]

Hours & Format

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

Summer: 6 weeks - 6 hours of lecture per week

Additional Details

Subject/Course Level: Public Health/Undergraduate

Grading/Final exam status: Letter grade. Alternate method of final assessment during regularly scheduled final exam group (e.g., presentation, final project, etc.).

Instructor: Gamble

Violence, Social Justice, and Public Health: [Read Less](#) [-]

PB HLTH W108 Women's Health, Gender And Empowerment 3 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

The course will provide core knowledge and skills from several disciplines on how to improve women's health and well-being globally, and it will follow a life course framework. It aims to expand students' understanding of the interconnected factors that influence women's health and empowerment - including foundations of sexual and reproductive health, economic development, political frameworks and global reproductive rights, demographic and social changes, basic principles of empowerment theory, educational opportunities, and efforts to ensure gender equity.

Women's Health, Gender And Empowerment: Read More [\[+\]](#)

Objectives & Outcomes

Course Objectives: A.[KNOWLEDGE]: To expand students' understanding of the interconnected cultural, demographic, social, and economic factors that influence women's health and empowerment globally.

B.[KNOWLEDGE]: To gain knowledge of the historical and present-day contexts of politics, policies, and laws related to women's health outcomes, human rights, sexual and reproductive rights, and gender inequities.

C.[SKILLS]: To critically engage with contrasting perspectives and changing paradigms about women's health and empowerment among epidemiologists, clinicians, public health experts, demographers, economists, human rights activists, and development specialists.

D.[SKILLS]: Assess policies, development frameworks and case studies of interventions designed to improve women's health and empowerment in differing cultural and national contexts with specific attention to gender norms.

Student Learning Outcomes: Analyze case studies applying the relevant historical context of politics, policies, and laws related to women's health and human rights.

Analyze the contrasting perspectives and changing paradigms among epidemiologists, public health experts, demographers, economists, human rights activists and development specialists related to women's health and empowerment

Assess the impact of women's health on advances in other sectors including child health, education, economic development, and social stability

Compare macro level political, institutional, and structural factors that influence women's health and empowerment in relation to local, cultural, and regional contexts

Critically examine how gender and women's empowerment is addressed in the Sustainable Development Goals and other development frameworks

Evaluate case studies of interventions designed to improve women's health and empowerment in differing cultural and national contexts and recommend improvements

Examine how girls' education contributes to individual, community, and national development.

Explain the ways in which social, economic, and cultural factors can both promote and impede women's and girls' health.

Identify the major institutions and non-governmental organizations that influence women's health and empowerment and suitable approaches for implementing interventions to ensure gender equity

Identify and analyze gender inequities in health care needs and access to care.

Hours & Format

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

PB HLTH 112 Global Health: A Multidisciplinary Examination 4 Units

Terms offered: Summer 2017 First 6 Week Session, Spring 2016, Spring 2015

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.

Global Health: A Multidisciplinary Examination: Read More [\[+\]](#)

Rules & Requirements

Credit Restrictions: Students who complete PH N112 receive no credit for completing PH 112

Hours & Format

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

Summer: 6 weeks - 9 hours of lecture and 3 hours of discussion per week

Additional Details

Subject/Course Level: Public Health/Undergraduate

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

Instructors: Krishnan, Reingold

Global Health: A Multidisciplinary Examination: Read Less [\[-\]](#)

PB HLTH N112 Global Health: A Multidisciplinary Examination 4 Units

Terms offered: Summer 2022 First 6 Week Session, Summer 2021 First 6 Week Session, Summer 2020 First 6 Week Session

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.

This class is the Summer Session version of PH 112; same units and content, increased lecture and discussion hours.

Global Health: A Multidisciplinary Examination: [Read More](#) [+]

Rules & Requirements

Credit Restrictions: Students who complete PH 112 receive no credit for completing PH N112.

Hours & Format

Summer: 6 weeks - 6 hours of lecture and 6 hours of discussion per week

Additional Details

Subject/Course Level: Public Health/Undergraduate

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

Instructors: Reingold, Colford

Global Health: A Multidisciplinary Examination: [Read Less](#) [-]

PB HLTH 115 Introduction to Global Health Equity 3 Units

Terms offered: Summer 2022 Second 6 Week Session, Summer 2021 Second 6 Week Session, Summer 2020 Second 6 Week Session

This lecture will provide an overview of the intersection between global health and social justice, with a specific focus on ways in which inequity, specifically conditions that lead to poverty, disproportionately affect health outcomes. Students will learn about historical and theoretical underpinnings of global health, how social and structural determinants affect health outcomes and policy, the principles of international law and health economics, and the structure of health delivery models. In the process, students will engage in topics related to social factors that impact health, including class, race, gender, and poverty. Class discussions will address contemporary global health priorities through the lens of human rights activism.

Introduction to Global Health Equity: [Read More](#) [+]

Objectives & Outcomes

Student Learning Outcomes: Critically analyze and critique key grassroots global health advocacy efforts and models
Formulate comprehensive and equitable policy recommendations on global health cases
Think critically about and articulate the history, pathology, and causation of contemporary global health inequity
Utilize basic research methods and work collaboratively in a team setting to complete a group case project

Rules & Requirements

Credit Restrictions: Students will receive no credit for PB HLTH 115 after completing PB HLTH 15. A deficient grade in PB HLTH 115 may be removed by taking PB HLTH 15.

Repeat rules: Course may be repeated for credit with advisor consent.

Hours & Format

Summer: 6 weeks - 4 hours of lecture and 4 hours of discussion per week

Additional Details

Subject/Course Level: Public Health/Undergraduate

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

Instructor: Le

Introduction to Global Health Equity: [Read Less](#) [-]

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

Terms offered: Fall 2022, Spring 2022, Fall 2021

This course offers an introduction to issues and perspectives related to health and medicine. Guest lecturers speak about the week's topic, which can include a variety of topics such as public health, violence, chronic illnesses, environmental health, and health care economics. Speakers share their first-hand experiences in their fields, discuss current issues, debate ethical dilemmas, and pose and answer questions. During the weekly discussion sections, students delve deeper into the issues, not only exploring and perhaps questioning their own thoughts and beliefs, but also learning from the experiences and perspectives of their fellow students.

Seminar on Social, Political, and Ethical Issues in Health and Medicine: Read More [\[+\]](#)

Objectives & Outcomes

Course Objectives: Consider various socio-economic, ethical, political, and social justice issues in health and medicine from an interdisciplinary perspective, and learn something new. This course will help students form a more comprehensive picture of what public health is and how various levels interact to impact population health. In the process, students will become better acquainted with their own beliefs, as they pertain to the issues discussed, and will learn how to productively engage in discussion with others who may or may not share these same beliefs.

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

Instructors: Francis, Keller

Seminar on Social, Political, and Ethical Issues in Health and Medicine: Read Less [\[-\]](#)

PB HLTH C117 Introduction to Global Health Disparities Research 2 Units

Terms offered: Spring 2020, Spring 2019, Spring 2018

This course prepares students to conduct a 10-week global health research project in a low or middle-income country (LMIC); provides a background in global health, emphasizing infectious disease research, international research ethics, and the conduct of health research in low-resource settings. Leads students through the process of preparing for, conducting, and completing a short-term research project, with modules focused on cultural communication, the role and pace of research in these other countries, presentation preparation, project development, and troubleshooting skills; gaining perspective into the relationship between global health and health disparities in the USA

Introduction to Global Health Disparities Research: Read More [\[+\]](#)

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. Alternate method of final assessment during regularly scheduled final exam group (e.g., presentation, final project, etc.).

Instructor: Reingold

Also listed as: INTEGBI C195

Introduction to Global Health Disparities Research: Read Less [\[-\]](#)

PB HLTH 118 Nutrition in Developing Countries 3 Units

Terms offered: Summer 2022 First 6 Week Session, Summer 2021 First 6 Week Session, Spring 2021

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.

Nutrition in Developing Countries: Read More [\[+\]](#)

Hours & Format

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

Summer: 6 weeks - 8 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

Nutrition in Developing Countries: Read Less [\[-\]](#)

PB HLTH 126 Health Economics and Public Policy 3 Units

Terms offered: Spring 2021, Spring 2020, Spring 2019

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.

Health Economics and Public Policy: [Read More](#) [+]

Rules & Requirements

Prerequisites: Public Health major or consent of instructor

Hours & Format

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

Summer: 8 weeks - 6 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: Fulton

Health Economics and Public Policy: [Read Less](#) [-]

PB HLTH 129 The Aging Human Brain 3 Units

Terms offered: Fall 2021, Fall 2019, Fall 2017

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.

The Aging Human Brain: [Read More](#) [+]

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, with common exam group.

Instructor: Jagust

The Aging Human Brain: [Read Less](#) [-]

PB HLTH 130 Advanced Health Policy 3 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

This course will give you the opportunity to build upon your understanding of the organization, financing and current policy issues of the US health care delivery system obtained in PH 150D. In this course you will become engaged health policy analysts, applying policy making tools (e.g., policy memos/briefs, legislative analysis, regulatory comments, media advocacy, public testimony) to actual health issues and problems. Through individual and group work, you will draw upon both verbal and written communication skills to effectuate health policy change.

Advanced Health Policy: [Read More](#) [+]

Rules & Requirements

Prerequisites: PH 150D: Introduction to Health Policy and Management

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. Alternative to final exam.

Instructor: Flagg

Advanced Health Policy: [Read Less](#) [-]

PB HLTH 132 Artificial Intelligence for Health and Healthcare 3 Units

Terms offered: Fall 2021

Over the coming decades, data and algorithms will transform medicine and our health care system. Whether you plan to be a doctor, an algorithm developer, or a manager or policy maker in the health sector, this course will help you understand: (1) the tremendous upside of artificial intelligence for health, and (2) how well-intentioned efforts to apply these tools can do harm. The course will be quantitative (e.g., technical readings; problem sets requiring statistical software), and is designed for students with at least intermediate coursework in statistics, economics, computer science, etc.

Artificial Intelligence for Health and Healthcare: [Read More \[+\]](#)

Objectives & Outcomes

Course Objectives: Finally, students will learn to identify new unsolved problems where data and algorithms could improve health and medicine, and start to think about developing solutions.

Students will also come away with a list of several 'red flags' -- unique challenges of health data that make it difficult to apply algorithms that have been successful in other fields. This will help them become better and more critical consumers of literature and news in this area.

Students will learn about several problems in health care where artificial intelligence is helping doctors and policy makers.

Rules & Requirements

Prerequisites: An intermediate coursework in statistics (e.g., C100), economics (e.g., 100A/B), computer science (e.g., CS88), etc. is recommended

Hours & Format

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

Additional Details

Subject/Course Level: Public Health/Undergraduate

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

Instructor: Obermeyer

Artificial Intelligence for Health and Healthcare: [Read Less \[-\]](#)

PB HLTH 141 Introduction to Biostatistics 5 Units

Terms offered: Summer 2017 Second 6 Week Session, Summer 2016 10 Week Session, Summer 2016 Second 6 Week Session

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. [Introduction to Biostatistics: Read More \[+\]](#)

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.

[Introduction to Biostatistics: Read Less \[-\]](#)

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

Terms offered: Fall 2022, Summer 2022 Second 6 Week Session, Spring 2022

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

Introduction to Probability and Statistics in Biology and Public Health:

[Read More \[+\]](#)

Rules & Requirements

Prerequisites: High school algebra

Hours & Format

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

Summer: 6 weeks - 7.5 hours of lecture, 2.5 hours of discussion, and 2.5 hours of laboratory per week

Additional Details

Subject/Course Level: Public Health/Undergraduate

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

Instructors: Riddell, Kang Dufour

Introduction to Probability and Statistics in Biology and Public Health:
[Read Less \[-\]](#)

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

Terms offered: Fall 2022, Spring 2022, Spring 2021

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

Introduction to Probability and Statistics in Biology and Public Health:

[Read More \[+\]](#)

Rules & Requirements

Prerequisites: High school algebra

Hours & Format

Fall and/or spring:

7 weeks - 8 hours of lecture per week

15 weeks - 4 hours of 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: Kang-Dufour

Introduction to Probability and Statistics in Biology and Public Health:
[Read Less \[-\]](#)

PB HLTH 144A Introduction to SAS Programming 2 Units

Terms offered: Spring 2016, Spring 2015, Spring 2014

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.

Introduction to SAS Programming: [Read More \[+\]](#)

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

Introduction to SAS Programming: [Read Less \[-\]](#)

PB HLTH 144B Intermediate SAS Programming 2 Units

Terms offered: Spring 2016, Spring 2015, Spring 2014

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.

Intermediate SAS Programming: [Read More \[+\]](#)

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

Intermediate SAS Programming: [Read Less \[-\]](#)

PB HLTH 145 Statistical Analysis of Continuous Outcome Data 4 Units

Terms offered: Fall 2016, Fall 2015, Spring 2013

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.

Statistical Analysis of Continuous Outcome Data: Read More [+]

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

Statistical Analysis of Continuous Outcome Data: Read Less [-]

PB HLTH 147 Global Perspective on Vision 2 Units

Terms offered: Spring 2021, Spring 2020, Spring 2019

There are four facets to the course. 1) Core knowledge of the epidemiology of the major causes of vision loss globally 2) The role of ophthalmology and surgical interventions in global health 3) novel teaching methods in group dynamics, public speaking, video making, physician shadowing, surgery observation and leadership opportunities 4) Hands on public health work with an intervention, such as vision screening for the homeless. A multidisciplinary approach will be employed to study what interventions are taking place to alleviate the burden of ophthalmic disease.

Global Perspective on Vision: Read More [+]

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.

Instructor: Lee

Formerly known as: Public Health 247

Global Perspective on Vision: Read Less [-]

PB HLTH 150A Introduction to Epidemiology and Human Disease 4 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

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.

Introduction to Epidemiology and Human Disease: Read More [+]

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: Barcellos, Mujahid, Lewnard

Formerly known as: 150

Introduction to Epidemiology and Human Disease: Read Less [-]

PB HLTH 150B Human Health and the Environment in a Changing World 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

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.

Human Health and the Environment in a Changing World: Read More [+]

Rules & Requirements

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

Credit Restrictions: Students will receive no credit for PB HLTH 150B after completing BEHS 160, PB HLTH 150, or PB HLTH N150B. A deficient grade in PB HLTH 150B may be removed by taking PB HLTH 150, or PB HLTH N150B.

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: Bradman, Cardenas

Formerly known as: second half of 150

Human Health and the Environment in a Changing World: Read Less [-]

PB HLTH 150D Introduction to Health Policy and Management 3 Units

Terms offered: Fall 2022, Summer 2022 First 6 Week Session, Fall 2021

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.

Introduction to Health Policy and Management: Read More [+]

Objectives & Outcomes

Course Objectives: 1.

Provide an overview of the structure and financing of the U.S. healthcare system at the end of the first half of the course as measured by the midterm exam.

a.

Compare the US healthcare system to the systems in other developed countries (as measured on the final exam).

2.

Identify the principal functions of health insurance, the structure of public and private health insurance plans, and trends in enrollment and expenditures by the end of the first half of the course as measured by the midterm exam.

3.

Describe the involvement and policy goals of different stakeholders in the U.S. healthcare system measured by the midterm exam, article presentations and demonstrated in the course paper.

4.

Explain the health care policy making process in the U.S. and the respective roles of government and markets in this process. Understand the legal, ethical, economic, and regulatory dimensions of health care. To be measured by the final exam.

5.

Demonstrate critical thinking and ability to analyze health policies as demonstrated in the final term paper.

6.

Explain the socio-economic behavioral, biological, environmental, and other factors that impact human health and contribute to health disparities, as assessed in the final exam.

a.

Comprehend the impact of structural racism on health and health care

7.

Explain the innovation and adaptation cycle in biomedical and health information technologies in the U.S health care system as measured in the final exam.

8.

Recognize the structural racism that exists within our healthcare system; consider each person's role in perpetuating the status quo in order to move towards breaking it down.

9.

Apply the concepts learned to understand health/health care crisis (i.e., COVID-19)

Hours & Format

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

Summer:

6 weeks - 8 hours of lecture and 2 hours of discussion per week

8 weeks - 6 hours of lecture and 2 hours of discussion per week

Additional Details

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

Terms offered: Spring 2022, Spring 2021, Spring 2020

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.

Introduction to Community Health and Human Development: Read More [+]

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: Corburn

Introduction to Community Health and Human Development: Read Less [-]

PB HLTH N150B Human Health and the Environment in a Changing World 3 Units

Terms offered: Summer 2022 First 6 Week Session, Summer 2021 First 6 Week Session, Summer 2020 First 6 Week Session

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, microbial ecology, GIS, exposure assessment and risk assessment among others, are covered. The overall role of environmental risks in the pattern of human disease, both nationally and internationally, are covered. The policy strategies, used to evaluate and control these risks are discussed.

Human Health and the Environment in a Changing World: Read More [+]

Objectives & Outcomes

Student Learning Outcomes: 1.

Ability to describe the basic model of environmental health.

2.

Ability to demonstrate an understanding of environmental health sciences (EHS) core areas: toxicology, microbial ecology, GIS, exposure assessment, risk assessment and environmental epidemiology at a basic level.

3.

Demonstration of oral and written communication skills in the context of environmental health sciences.

4.

Ability to describe methods used to mitigate or control adverse health impacts from environmental hazards.

5.

Demonstrate proficiency in finding primary literature sources in search engines such as PubMed and Web of Science and manage citations using Zotero or equivalent software.

Rules & Requirements

Credit Restrictions: Students will receive no credit for PB HLTH N150B after completing PB HLTH 150B, or PB HLTH 150. A deficient grade in PB HLTH N150B may be removed by taking PB HLTH 150B, or PB HLTH 150.

Hours & Format

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

Additional Details

Subject/Course Level: Public Health/Undergraduate

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

Instructor: Smith

Human Health and the Environment in a Changing World: Read Less [-]

PB HLTH 155A Senior Research Seminar in Public Health 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

This applied course will help students understand how to conduct and interpret research in human health and disease, building on knowledge of epidemiology and biostatistics. The course will provide skills in: critically reading the literature related to public-health-related research, developing a research question and a testable hypothesis creating an analysis plan, applied statistical analysis of epidemiologic data, developing a research protocol for human subjects research, and case-based approaches to health issues.

Senior Research Seminar in Public Health: Read More [\[+\]](#)

Objectives & Outcomes

Course Objectives: 1.

Develop and define a research question.

10.

Conduct case-based analysis in areas of public health and medicine.

2.

Be proficient in finding primary literature sources and managing literature citations using bibliographic management software (such as EndNote, RefWorks, or Zotero).

3.

Be able to critically interpret information from peer reviewed medical, public health or social science literature.

4.

Know basic data management skills and have working knowledge of R.

5.

Know how to appropriately visualize data & select appropriate statistical tests.

6.

Be able to execute & interpret basic statistical tests in R (bivariate, non-regression).

7.

Be able to execute & interpret regression analyses in R (bivariate & multivariate).

8.

Develop a research protocol and consent form for study of human subjects.

9.

Be familiar with laboratory, analytic, survey/questionnaire and other methods used in human research.

Student Learning Outcomes: LEARN: Laboratory, analytic, survey/questionnaire and other methods used in human research.

SKILLS: Be able to critically interpret information from peer reviewed medical, public health or social science literature.

SKILLS: Be proficient in finding primary literature sources and managing literature citations using bibliographic management software (such as EndNote, RefWorks, or Zotero).

SKILLS: Develop a research protocol for study of human subjects.

SKILLS: Develop and define a research question/write Specific Aims.

SKILLS: Learn basic data management skills and have working knowledge of R software in research.

Rules & Requirements

Prerequisites: Completion of PH 142 and PH 150A (or approval from instructors). Note, it is expected that capstone students will be 4th year graduating seniors, unless otherwise given permission to enroll by the course instructors. It is expected that capstone students will have no more than two Public Health Major core course to complete at time of enrollment

Repeat rules: Course may be repeated for credit with instructor consent.

Hours & Format

PB HLTH 155B Women's Global Health and Empowerment 2 - 3 Units

Terms offered: Summer 2022 Second 6 Week Session, Summer 2021

Second 6 Week Session, Summer 2020 Second 6 Week Session

The course will provide core knowledge and skills from several disciplines on how to improve women's health and well-being globally. It aims to expand students' understanding of the interconnected factors that influence women's health and empowerment - including foundations of sexual and reproductive health, economic development, political frameworks and global reproductive rights, demographic and social changes, basic principles of empowerment theory, educational opportunities, and advances in gender equality.

The sessions follow a life course framework, and will be taught in a seminar style with plenty of opportunities for group discussions and case studies.

Women's Global Health and Empowerment: Read More [\[+\]](#)

Objectives & Outcomes

Student Learning Outcomes: 1.

Identify and analyze gender inequities in health care needs and access to care.

10.

Analyze the contrasting perspectives and changing paradigms among epidemiologists, public health experts, demographers, economists, human rights activists and development specialists related to women's health and empowerment.

11.

Explain the major theories of gender, sexuality and power.

12.

Demonstrate foundational knowledge of female anatomy, physiology and health conditions when discussing broader issues of women's health and empowerment.

2.

Explain the ways in which social, economic, and cultural factors can both promote and impede women's and girls' health.

3.

Examine how girls' education contributes to individual, community, and national development.

4.

Critically examine how gender and women's empowerment is addressed in the Sustainable Development Goals and other development frameworks.

5.

Evaluate case studies of interventions designed to improve women's health and empowerment in differing cultural and national contexts and recommend improvements.

6.

Compare macro level political, institutional, and structural factors that differentially influence men's and women's health and empowerment in relation to local, cultural, and regional contexts.

7.

Identify the major institutions and non-governmental organizations that influence women's health and empowerment and suitable approaches for implementing interventions to ensure gender equity.

8.

Assess the impact of women's health on advances in other sectors including child health, education, economic development, and social stability.

9.

Analyze case studies applying the relevant historical context of politics, policies, and laws related to women's health and human rights.

Hours & Format

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

PB HLTH 155C War and Public Health 3 Units

Terms offered: Summer 2022 First 6 Week Session, Summer 2021 First 6 Week Session

Course covers global Public Health effects of war in context of war's destruction of the health care infrastructure within the Social Ecological framework. Topics include war's impact on infectious disease & as barrier to control of vaccine-preventable diseases; maternal child health; health of those displaced; psychosocial toll & environmental health consequences. Curriculum focuses on ongoing global conflicts & ramifications of U.S. wars in Iraq and Afghanistan, includes modules focusing on public health prevention approach to war & research methods for studying health outcomes in conflict zones. Students work in teams & apply the course material to a specific war that they will follow. Panel discussions to feature veterans & refugees.

War and Public Health: Read More [+]

Objectives & Outcomes

Course Objectives: The course will provide students with a foundation on which they can build their own line of future inquiry exploring how war impacts public health.

The objectives of this course include providing students a new paradigm through which they can identify the sustained impact of armed conflict on communities, families and individuals, and understand that those effects linger long after the dead are buried or buildings are reconstructed.

Student Learning Outcomes: Finally, they will be able to evaluate how public health's prevention approach can be applied to armed conflict. In addition, students should be able to place the public health effects of war within the Social Ecological framework.

Moreover, upon completion of the course, students should be able to explain the effects of war on environmental health, nutrition and psychological health.

Students should also be able to explain how war can prevent control of infectious diseases, has contributed to outbreaks or re-emergence of diseases that were previously eliminated, and has prevented the eradication of vaccine preventable diseases.

Students who take the course will apply critical thought to media reports about community violence or adverse health and place them in the framework of the public health consequences of war.

The learning outcomes of the course include the ability to explain how war's destruction of the health care infrastructure impedes Public Health's mission globally — particularly in war zones in low-resource countries — and how war has also impacted Public Health in US communities.

Hours & Format

Summer: 6 weeks - 6 hours of lecture per week

Additional Details

Subject/Course Level: Public Health/Undergraduate

Grading/Final exam status: Final exam required.

Instructor: Lubens

War and Public Health: Read Less [-]

PB HLTH 155D Preparation for Public Health Practice and Leadership Seminar 3 Units

Terms offered: Fall 2022, Fall 2021

This capstone course will enhance student preparation to be effective public health practitioners and leaders through application of core knowledge, strengthening essential professional skills and development of post-graduation career and graduate education plans. Students will tackle real-world public health cases and emerging local challenges to enhance essential problem solving and innovation skills. Students will also enhance key communication, team and project skills. Through these activities, students will strengthen their ability to lead themselves, work effectively with others and lead health improvement.

Preparation for Public Health Practice and Leadership Seminar: Read More [+]

Objectives & Outcomes

Course Objectives: Through lecture, readings, and course activities, students will develop the capacity to:

#

Apply public health knowledge acquired in core courses to case-based scenarios.

#

Analyze the impact of a public health problem on a community/population level.

#

Develop and apply innovative approaches to addressing public health issues and present recommendations.

#

Develop interpersonal skill building, conflict resolution, and practical problem-solving skills.

#

Enhance oral and written communication and other key skills necessary for effectiveness as a professional and in demand by employers including: project management, human centered design and process improvement.

#

Increase knowledge of public health career and graduate education options and how to choose a path.

#

Prepare career-related materials. Strengthen interviewing and networking skills.

#

Strengthen effectiveness at working in teams to address public health challenges.

Rules & Requirements

Prerequisites: Completion/concurrent enrollment of Public Health Major core courses: PH142, PH150A, PH150B, and P150D. Note, it is expected that capstone students will be 4th year graduating seniors, unless otherwise given permission to enroll by the Course Instructor. It is expected that capstone students will have no more than two Public Health Major core course to complete at time of enrollment

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. Alternate method of final assessment during regularly scheduled final exam group (e.g., presentation, final project, etc.).

Instructor: Williams

PB HLTH 155E Seeing People: Understanding Homelessness' Roots, Stigmas, Systems and Solutions 3 Units

Terms offered: Fall 2022

The goal is to support you as an informed citizen who understands homelessness, its roots, the multilevel systems & services that exist to address it, & the levers at each level to effect change. We will focus on developing skills to be a changemaker by working together to address homelessness & "housism" in our community. "Housism" is the belief that people experiencing homelessness are intrinsically less worthy/human. We will be informed in our growth by counter-narratives by people experiencing homelessness & by theoretical frameworks, such as the Social Determinants of Health, Critical Race Theory, Intersectionality, the Ecological Model, & theories of stigma. Students who have experienced homelessness or unstable housing are welcome.

Seeing People: Understanding Homelessness' Roots, Stigmas, Systems and Solutions: Read More [+]

Objectives & Outcomes

- Course Objectives:**
1. Explain the causes of homelessness from historical, systems, and social-ecological perspectives.
 2. Discuss the roots of homelessness in the United States and in the Bay Area in systemic racism against BIPOC populations, homophobia, transphobia, and sexism.
 3. Inspect and unpack your housism and begin to develop and apply an antihousist framework.
 4. Categorize the different subpopulations of people experiencing homelessness and the unique forces leading to their vulnerability.
 5. Demonstrate the relationship between homelessness, individual wellbeing and public health.
 6. Apply changemaker principles to the goal of eliminating housism in the Bay Area.

Rules & Requirements

Requirements this course satisfies: Satisfies the American Cultures requirement

Repeat rules: Course may be repeated for credit with advisor consent.

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: Auerswald

Seeing People: Understanding Homelessness' Roots, Stigmas, Systems and Solutions: Read Less [-]

PB HLTH C155 Sociology of Health and Medicine 4 Units

Terms offered: Spring 2022, Summer 2020 First 6 Week Session, Spring 2019, Summer 2018 First 6 Week Session, Spring 2018, Summer 2017 First 6 Week Session

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.

Sociology of Health and Medicine: Read More [+]

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. A deficient grade in Sociology 155 may be removed by taking Sociology C115/Public Health C155.

Hours & Format

Fall and/or spring: 15 weeks - 3-3 hours of lecture and 0-2 hours of discussion per week

Summer:

6 weeks - 7.5-7.5 hours of lecture and 0-2 hours of discussion per week

8 weeks - 6-6 hours of lecture and 0-2 hours of discussion per week

Additional Details

Subject/Course Level: Public Health/Undergraduate

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

Also listed as: SOCIOL C115

Sociology of Health and Medicine: Read Less [-]

PB HLTH C160 Environmental Health and Development 4 Units

Terms offered: Summer 2022 Second 6 Week Session, Spring 2022, Summer 2021 Second 6 Week Session

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.

Environmental Health and Development: Read More [+]

Rules & Requirements

Credit Restrictions: Students will receive no credit for ESPM C167 after completing ESPM 167.

Hours & Format

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

Summer: 6 weeks - 6.5 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: Morello-Frosch

Also listed as: ESPM C167

Environmental Health and Development: Read Less [-]

PB HLTH 162A Public Health Microbiology 4 Units

Terms offered: Fall 2022, Summer 2022 Second 6 Week Session, Fall 2021

Introduction to properties of microorganisms; their relationships with humans in causing infectious diseases and in maintaining health. With PBHLTH 168, satisfies most requirements for a laboratory course in microbiology. May be taken without PBHLTH 168.

Public Health Microbiology: Read More [+]

Rules & Requirements

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

Hours & Format

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

Summer: 6 weeks - 8 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.

Instructors: Harris, Liu

Public Health Microbiology: Read Less [-]

PB HLTH 168 Public Health Microbiology Laboratory 2 Units

Terms offered: Fall 2022

This laboratory course was designed to accompany PH162A, Public Health microbiology. The primary emphasis in the laboratory will be on properties of microorganisms, particularly those that cause infectious disease in humans. Examples will be presented of laboratory applications of microbiology and immunology as they relate to the diagnosis and treatment of disease, and control of the environment to prevent transmission of infectious agents.

Public Health Microbiology Laboratory: Read More [+]

Rules & Requirements

Prerequisites: One year each of college-level biology and chemistry. Students are encouraged to take PH 162A concurrently or have taken it previously

Credit Restrictions: Students will receive no credit for PB HLTH 168 after completing BEHS 103.

Hours & Format

Fall and/or spring: 15 weeks - 2.5 hours of laboratory and 1 hour of lecture per week

Summer:

6 weeks - 8 hours of laboratory and 2 hours of lecture per week

8 weeks - 5 hours of laboratory and 2 hours of lecture per week

Additional Details

Subject/Course Level: Public Health/Undergraduate

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

Instructor: Liu

Formerly known as: Public Health 162L

Public Health Microbiology Laboratory: Read Less [-]

PB HLTH 170C Drinking Water and Health 3 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

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.

Drinking Water and Health: Read More [+]

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

Drinking Water and Health: Read Less [-]

PB HLTH 177 Applied GIS for Public Health 3 Units

Terms offered: Summer 2022 8 Week Session, Summer 2021 8 Week Session

Course is to familiarize students with principles, methods, & techniques necessary to apply GIS in public health settings. Weekly readings, discussions, case studies are presented to introduce application of GIS technologies; maps for visualizing clusters, mobile phone-Apps for data collection, & spatial analyses such as proximity analysis or site suitability. Course includes assignments aimed & acquiring experience on the use of GIS for infectious disease control, disease cluster detection, environmental justice, health services data mapping, & spatial risk assessment. Culminating project: Story Map where students use maps they've created as well as additional narrative text images & optional videos for community health education or policy

Applied GIS for Public Health: Read More [+]

Objectives & Outcomes

Course Objectives:

Create a Story Map to convey information related to an important health issue.

#

Create a mobile-GIS tool for capturing geo-located health or asset data.

#

Know how to define, design, implement and apply spatial data to a health-related issue.

#

The ability to develop disease surveillance maps.

#

The objective of this course is to provide technical training .

#

Understand how maps relate to policies such as redlining and how those relate to current health inequities.

#

Understand the rewards and challenges of working with spatial data.

Student Learning Outcomes: Obtain marketable skills (eg. StoryMaps and Dashboards)

Rules & Requirements

Repeat rules: Course may be repeated for credit with advisor consent.

Hours & Format

Summer: 8 weeks - 6 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

Applied GIS for Public Health: Read Less [-]

PB HLTH 177A Public Health Maps and Spatial Analysis for Health Equity 3 Units

Terms offered: Not yet offered

Students will acquire geospatial skills and apply them in the context of structural inequity, health disparities, and racial justice. Geospatial skills will be applied to public health problems that continue to demonstrate differences in health exposures, risks, and adverse outcomes for BIPOC living in the US, as well as to contribute to much poorer outcomes in the US than in other high income countries. The main learning objective in the course is to understand the importance of place in the display, analysis, and reporting of health data at local, national, and global scales. Each week, case studies will provide context for the specific ways in which place matters when thinking about public health and health services delivery.

Public Health Maps and Spatial Analysis for Health Equity: Read More [+]
Objectives & Outcomes

Course Objectives: Communicate information related to an important health issues including their geographic and demographic contexts.

How: Use the ESRI StoryMap Builder to incorporate short narratives, maps, infographics, and images into a web-based interactive communication tool.

Demonstrate the ability to design, implement, and apply spatial data to determine and display relative prevalence of diseases.

How: Create maps and perform kernel density and cluster/hot spot analysis for a specific disease

How: Create a dashboard to illustrate the location and incidence of disease cases

Illustrate how maps were used to contribute to structural racism by relating historic redlining maps to current health inequities.

How: Create a social vulnerability index from demographic and health indicators, and map the index by county

How: Compare a current map that illustrates social vulnerabilities to historic redlining maps from the Federal Housing Administration.

Illustrate the limitations of political boundaries (census areas, cities, counties), in predicting disease prevalence, and equity issues associated with health risks.

How: Use appropriate classification schema to overcome the "Modifiable Areal Unit Problem"

Predict concentrations of an environmental contaminant where data are missing

How: Use Kriging to interpolate values in an area that has some missing data.

Report survey data cartographically.

How: Develop and execute a geo-enabled survey on a public health issue

How: Create an interactive map of survey results

Hours & Format

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

Additional Details

Subject/Course Level: Public Health/Undergraduate

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

Instructors: Smith, Ivey

Public Health Maps and Spatial Analysis for Health Equity: Read Less [-]

PB HLTH 180 The Evolution of Human Sexuality 2 Units

Terms offered: Fall 2022, Spring 2022, Fall 2021

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.

The Evolution of Human Sexuality: Read More [+]

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

The Evolution of Human Sexuality: Read Less [-]

PB HLTH 181 Poverty and Population 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

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.

Poverty and Population: Read More [+]

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

Poverty and Population: Read Less [-]

PB HLTH 188 Fung Fellowship Seminar 3 Units

Terms offered: Fall 2022, Spring 2022, Fall 2021

This course explores the development of innovations to improve the health of populations, with a primary focus on technologies for children (ages 0 to teen) and older adults. Significant emphasis is placed on health equity in exploring these customer groups. Human-centered design is used as the overarching approach to problem solving, which contributes mindsets and skills, as well as mechanisms for collaboration. This course is part of the Fung Fellowship for Wellness & Technology Innovations.

Fung Fellowship Seminar: Read More [+]

Rules & Requirements

Repeat rules: Course may be repeated for credit with instructor consent.

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/Undergraduate

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

Instructor: Sandhu

Fung Fellowship Seminar: Read Less [-]

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

Terms offered: Fall 2022, Fall 2021, Spring 2019

Required for students intending to complete an honors thesis in their senior year. This course will document your completion of an senior honors thesis in Public Health. You will focus on writing and publishing scientific documents and presenting scientific information in mixed media (written and oral) to diverse audiences (scientists and the general public). Special Study for Honors Candidates in Public Health: Read More [+]

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. Alternate method of final assessment during regularly scheduled final exam group (e.g., presentation, final project, etc.).

Special Study for Honors Candidates in Public Health: Read Less [-]

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

Terms offered: Spring 2022, Fall 2021, Fall 2020

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.

Special Topics in Public Health: Read More [+]

Rules & Requirements

Prerequisites: Upper division standing

Repeat rules: Course may be repeated for credit without restriction.

Hours & Format

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

Summer:

6 weeks - 1-10 hours of lecture per week

8 weeks - 1-8 hours of lecture per week

Additional Details

Subject/Course Level: Public Health/Undergraduate

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

Special Topics in Public Health: Read Less [-]

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

Terms offered: Spring 2021, Spring 2018, Summer 2017 8 Week Session
Supervised experience relevant to specific aspects of public health in off-campus organizations. Regular individual meetings with faculty sponsor and written reports required.

Field Study in Public Health: Read More [+]

Rules & Requirements

Prerequisites: Upper division standing

Repeat rules: Course may be repeated for credit without restriction.

Hours & Format

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

Summer:

6 weeks - 1-10 hours of independent study per week

8 weeks - 1-8 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.

Field Study in Public Health: Read Less [-]

PB HLTH 198 Directed Group Study 1 - 4 Units

Terms offered: Spring 2022, Fall 2021, Spring 2021

Directed Group Study: Read More [+]

Rules & Requirements

Repeat rules: Course may be repeated for credit without restriction.

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.

Directed Group Study: Read Less [-]

PB HLTH 199 Supervised Independent Study and Research 1 - 4 Units

Terms offered: Spring 2022, Spring 2017, Spring 2016

Enrollment restrictions apply; see the Introduction to Courses and Curricula section of this catalog.

Supervised Independent Study and Research: Read More [+]

Rules & Requirements

Repeat rules: Course may be repeated for credit without restriction.

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.

Supervised Independent Study and Research: Read Less [-]

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

Terms offered: Spring 2018, Spring 2017, Spring 2016

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. Current issues in Public Health Ethics: Research and Practice: Read More [+]

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

Current issues in Public Health Ethics: Research and Practice: Read Less [-]

PB HLTH 200C Public Health Core Breadth Seminar 3 Units

Terms offered: Fall 2015, Fall 2009, Fall 2008

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.

Public Health Core Breadth Seminar: Read More [+]

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

Public Health Core Breadth Seminar: Read Less [-]

PB HLTH 200J Health Policy and Management Breadth Course 2 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

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.

Health Policy and Management Breadth Course: Read More [+]

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: Robinson

Formerly known as: Public Health 200C1

Health Policy and Management Breadth Course: Read Less [-]

PB HLTH 200K Environmental Health Sciences Breadth Course 2 Units

Terms offered: Spring 2022, Fall 2021, Spring 2021

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.

Environmental Health Sciences Breadth Course: [Read More](#) [+]

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: Kyle

Formerly known as: Public Health 200C2

Environmental Health Sciences Breadth Course: [Read Less](#) [-]

PB HLTH 200L Health and Social Behavior Breadth 2 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

Health and social behavior uses theory and research from the behavioral sciences to explain the causes and health effects of salutary and risky behavior.

Health and Social Behavior Breadth: [Read More](#) [+]

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: Catalano

Formerly known as: Public Health 200C3

Health and Social Behavior Breadth: [Read Less](#) [-]

PB HLTH W200 Foundations of Public Health Practice 1 Unit

Terms offered: Fall 2022, Fall 2021, Fall 2020

Today, graduates of public health programs must be prepared for evidence-based practice and the generation of practice-based evidence. They must have the ability to work in an increasingly interdisciplinary, interprofessional and cross-sectoral environment and settings.

Foundations of Public Health Practice introduces 12 areas of critical public health content to bridge the chasm between public health practice and theory. This course serves as an orientation to the various subjects, fields, and concepts that students will encounter in their education. While no single professional is expected to be an expert in all of these practice areas, everyone must be aware of their importance.

Foundations of Public Health Practice: [Read More](#) [+]

Hours & Format

Fall and/or spring: 8 weeks - 2 hours of web-based lecture per week

Online: This is an online course.

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructors: Maus, Barnett

Foundations of Public Health Practice: [Read Less](#) [-]

PB HLTH W200E Health Policy and Management Breadth Course 3 Units

Terms offered: Summer 2022 First 6 Week Session, Summer 2021 First 6 Week Session, Summer 2020 First 6 Week Session

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.

Health Policy and Management Breadth Course: [Read More](#) [+]

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

Health Policy and Management Breadth Course: [Read Less](#) [-]

PB HLTH W200F Environmental Health Sciences Breadth Course 2 Units

Terms offered: Fall 2022, Spring 2022, Spring 2021

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.

Environmental Health Sciences Breadth Course: [Read More](#) [+]

Objectives & Outcomes

Course Objectives: Communicate environmental health issues to lay public and professionals, using appropriate terminology and data. Define and describe major ways in which the environment and human health are linked in different parts of the world and for different populations. Develop a case study on an environmental health and justice issue and propose solutions that integrate the main components of environmental health (exposure assessment, toxicology, epidemiology, and risk assessment).

Define and describe the key components of environmental health, including exposure assessment, toxicology, epidemiology, and risk assessment.

Describe ways by which the health impact from major environmental health risks, such as climate change, can be effectively controlled.

Learn effective ways to communicate important information in Environmental Health

Learn the concepts of environmental justice, water sanitation and hygiene (WASH), health risks associated with disasters, food systems, and public health.

Understand the associated health effects from developmental, adult and occupational chemical exposures.

Hours & Format

Fall and/or spring:

7 weeks - 4 hours of lecture per week

15 weeks - 2 hours of lecture per week

Online: This is an online course.

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructors: Graham, Pokhrel

Environmental Health Sciences Breadth Course: [Read Less](#) [-]

PB HLTH W200G Health and Social Behavior Breadth 3 Units

Terms offered: Fall 2022, Spring 2022, Fall 2021

Course focuses on social, cultural, bio-behavioral determinants of health & health behavior, issues related to social & behavioral interventions, policies aimed at improving community & population health. Students will have experience in/be able to apply range of Health & Social Behavior perspectives, approaches to critically analyze public health issues, conceptualize research & interventions at different levels of ecological model. Topics designed to convey key concepts, highlight approaches in Health & Social Behavior via lectures, readings, videos & online resources. Group assignments focus on community context & health. Will require students to synthesize/apply concepts from course. Assignments will culminate in a final group project.

Health and Social Behavior Breadth: [Read More](#) [+]

Objectives & Outcomes

Course Objectives: Describe a range of major themes, theories and conceptual frameworks, research and practice approaches commonly encountered in Health and Social Behavior.

Describe and apply ecological public health frameworks and concepts emphasizing multilevel interactions between biology, behavior, environments and the distribution of life opportunities.

Describe the rationale for community involvement in public health actions and the key principles of community-based approaches to public health.

Understand how socially constructed concepts of race, ethnicity, immigration, gender and social class influence health and structure population health inequities.

Understand relationships between human behavior and public health to critically assess models of human behavior and to explore strengths-based, multi-level intervention design.

Rules & Requirements

Credit Restrictions: Students will receive no credit for PB HLTH W200G after completing PB HLTH 200L. A deficient grade in PB HLTH W200G may be removed by taking PB HLTH 200L.

Hours & Format

Fall and/or spring:

7 weeks - 6.5 hours of web-based lecture per week

15 weeks - 3 hours of web-based lecture per week

Summer: 6 weeks - 7.5 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: vanDommelen-Gonzalez

Health and Social Behavior Breadth: [Read Less](#) [-]

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

Terms offered: Spring 2021, Spring 2020, Spring 2019

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.

Public Health Interventions: Theory, Practice, and Research: Read More [+]

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

Public Health Interventions: Theory, Practice, and Research: Read Less [-]

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

Terms offered: Fall 2013, Fall 2012, Fall 2009

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.

Community-Based Research and Interventions to Promote Health: Theory and Methods: Read More [+]

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

Community-Based Research and Interventions to Promote Health: Theory and Methods: Read Less [-]

PB HLTH 202B Ethnic and Cultural Diversity in Health Status 4 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

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.

Ethnic and Cultural Diversity in Health Status: Read More [+]

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: Morello-Frosch

Ethnic and Cultural Diversity in Health Status: Read Less [-]

PB HLTH 202G Advanced Alcohol Research Seminar 1 Unit

Terms offered: Fall 2022, Spring 2022, Fall 2021

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.

Advanced Alcohol Research Seminar: [Read More](#) [+]

Rules & Requirements

Repeat rules: Course may be repeated for credit without restriction.

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

Advanced Alcohol Research Seminar: [Read Less](#) [-]

PB HLTH C202B Ethnic and Cultural Diversity in Health Status 4 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020, Spring 2016, Spring 2015, Spring 2013

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.

Ethnic and Cultural Diversity in Health Status: [Read More](#) [+]

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

Ethnic and Cultural Diversity in Health Status: [Read Less](#) [-]

PB HLTH W202 Ethnic and Cultural Diversity in Health Status 3 Units

Terms offered: Fall 2017, Fall 2015, Fall 2014

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.

Ethnic and Cultural Diversity in Health Status: [Read More](#) [+]

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

Ethnic and Cultural Diversity in Health Status: [Read Less](#) [-]

PB HLTH 203A Theories of Health and Social Behavior 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

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.

Theories of Health and Social Behavior: [Read More](#) [+]

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

Theories of Health and Social Behavior: [Read Less](#) [-]

PB HLTH 204A Mass Communications in Public Health 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

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.

Mass Communications in Public Health: Read More [\[+\]](#)

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.

Mass Communications in Public Health: Read Less [\[-\]](#)

PB HLTH 204F Culture, Public Health Practice, and Eliminating Health Disparities: From Ideas to Action in the 21st Century 3 Units

Terms offered: Spring 2016, Spring 2015, Spring 2013

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.

Culture, Public Health Practice, and Eliminating Health Disparities: From Ideas to Action in the 21st Century: Read More [\[+\]](#)

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

Culture, Public Health Practice, and Eliminating Health Disparities: From Ideas to Action in the 21st Century: Read Less [\[-\]](#)

PB HLTH 204G Research Advances in Health Disparities: Multidisciplinary Perspectives 1 - 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

Understanding and addressing persistent racial inequities in health status is a core public health problem. Ethnic minorities are much more likely to experience much higher rates of poor birth outcomes, infant mortality, infectious and chronic diseases, hospitalization rates, and early death rates from all causes. This course examines racial and ethnic health inequities as a function of social inequality. Topics are drawn from a social determinants of health framework emphasizing the importance of the economic, social, and political features that adversely affect the health status of many underrepresented racial and ethnic minorities in the U.S. from a multidisciplinary approach: Public Health, sociology, anthropology, and social welfare

Research Advances in Health Disparities: Multidisciplinary Perspectives: Read More [\[+\]](#)

Rules & Requirements

Prerequisites: Graduate standing or consent of instructor

Hours & Format

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

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructor: Herd

Research Advances in Health Disparities: Multidisciplinary Perspectives: Read Less [\[-\]](#)

PB HLTH W204 Public Health Communications 3 Units

Terms offered: Summer 2021 Second 6 Week Session, Summer 2020

Second 6 Week Session, Summer 2019 Second 6 Week Session

This introductory graduate course teaches human-centered design methodology and asks students to apply it to the creation of a public health communications tool. Students will select a public health challenge to focus on, then will learn how to conduct design research with the target community, seek communications design inspiration, and to build and test a prototype of a communications tool.

Public Health Communications: Read More [\[+\]](#)

Hours & Format

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

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

Online: This is an online course.

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructor: Watterson

Public Health Communications: Read Less [\[-\]](#)

PB HLTH 205 Program Planning and Needs Assessment 4 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

This course provides the necessary skills to plan effective public health programs. Examines principles and methods underlying program planning, emphasizing multi-disciplinary, collaborative and "real world" planning processes. Provides students with conceptual and experiential understanding of how to plan, conduct and present community health needs assessments by covering both theory and practical skills. Students will become familiar with the theory and methods related to ecologically valid assets-based and needs-based community health assessments and translate them into practice. Students will work with a community organization to apply the program planning principles and needs assessment taught throughout the course.

Program Planning and Needs Assessment: Read More [+]

Objectives & Outcomes

Course Objectives: Students will work in a community organization to apply the knowledge and skills acquired in this class. Real world application of program planning principles and needs assessment will be taught throughout the course. Students will complete this course with the development of a complete program plan for a community organization or collect, analyze and present community health assessment data and develop feasible programmatic recommendations.

Rules & Requirements

Prerequisites: Public health students

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: Ndola, Prata

Program Planning and Needs Assessment: Read Less [-]

PB HLTH W205 Program Planning and Development 3 Units

Terms offered: Summer 2022 Second 6 Week Session, Summer 2021 Second 6 Week Session, Summer 2020 Second 6 Week Session

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.

Program Planning and Development: Read More [+]

Hours & Format

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

Summer: 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: O'Hara

Program Planning and Development: Read Less [-]

PB HLTH 206 PH Nutrition Core Course: Critical Issues in Public Health Nutrition 2 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

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. PH Nutrition Core Course: Critical Issues in Public Health Nutrition: Read More [+]

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

PH Nutrition Core Course: Critical Issues in Public Health Nutrition: Read Less [-]

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

Terms offered: Fall 2015, Fall 2014, Fall 2013

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.

Nutrition Status, Physical Activity, and Chronic Conditions: [Read More](#) [+]

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

Nutrition Status, Physical Activity, and Chronic Conditions: [Read Less](#) [-]

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

Terms offered: Spring 2022, Fall 2021, Spring 2021

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.

Food and Nutrition Policies and Programs: [Read More](#) [+]

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

Food and Nutrition Policies and Programs: [Read Less](#) [-]

PB HLTH 206C Nutritional Epidemiology 3 Units

Terms offered: Fall 2022, Spring 2022, Spring 2021

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.

Nutritional Epidemiology: [Read More](#) [+]

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

Nutritional Epidemiology: [Read Less](#) [-]

PB HLTH 206D Food and Nutrition Programs and Policies in Developing Countries 3 Units

Terms offered: Spring 2022, Fall 2019, Fall 2017

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.

Food and Nutrition Programs and Policies in Developing Countries: [Read More](#) [+]

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

Food and Nutrition Programs and Policies in Developing Countries: [Read Less](#) [-]

PB HLTH W206 Maternal and Child Health Nutrition 3 Units

Terms offered: Summer 2022 Second 6 Week Session, Summer 2021 Second 6 Week Session, Summer 2020 Second 6 Week Session
 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
 Maternal and Child Health Nutrition: [Read More](#) [+]
Rules & Requirements

Repeat rules: Course may be repeated for credit under special circumstances: 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

Maternal and Child Health Nutrition: [Read Less](#) [-]

PB HLTH W206A Nutrition Assessment 3 Units

Terms offered: Spring 2022
 Nutrition assessment tools are used to evaluate an individual's or population's nutrition status and/or risk of specific nutrient excess or deficiency. This 3-unit course will discuss various dietary, anthropometric, clinical, and biochemical nutrition assessment tools and provide you with skills to determine which assessment tools are needed based on program/research project goals, how to interpret nutrition assessment survey results and apply them to populations, and critically evaluate the metrics used to define different types of malnutrition.
 Nutrition Assessment: [Read More](#) [+]

Objectives & Outcomes

Course Objectives: 1. Recommend the appropriate nutrition assessment tool needed based on the target population, nutrient/ nutrition issue of interest, and goal of the assessment.
 2. Critically evaluate nutrition assessment tools based on their required resources, applications, limitations, and biases.
 3. Interpret nutrition assessment results and apply them at the population level.

Hours & Format

Fall and/or spring: 8 weeks - 6 hours of lecture per week

Online: This is an online course.

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructor: Zyba

Nutrition Assessment: [Read Less](#) [-]

PB HLTH W206B Food and Nutrition Policy 3 Units

Terms offered: Fall 2022

Course examines ways in which the US govt designs & implements policies/programs that affect access to nutritionally adequate, safe, affordable diets. We analyze how multiple stakeholders in the food system interact to affect policy design & implementation; historical, social, economic, environmental & political factors that determine stakeholder positions on policy issues; & ways these factors promote or act as barriers to achieving a system that promotes optimal food access, nutrition & health. We cover contemporary food & nutrition policy issues, as well as the history of these issues & ideas. Students will understand the broad spectrum of policies that affect human diets & will become familiar with the policy processes.

Food and Nutrition Policy: [Read More](#) [+]

Objectives & Outcomes

Course Objectives: a.

Describe the principal areas of domestic food and nutrition policy (e.g., food assistance, dietary guidance and education, agricultural support, food industry regulation, food safety regulation, food and nutrition research) and the most important current issues related to these policy areas.

b.

Identify the governmental agencies primarily responsible for each area of food and nutrition policy and explain their roles.

c.

Identify the ways in which historical, social, cultural, economic, commercial, and institutional factors promote or act as barriers to the design and implementation of agriculture, food, and nutrition policies and programs, and the ways in which these policies and programs affect health.

d.

Describe the major federal food programs—their history, purpose, reach, and effectiveness, as well as current policy and political questions being raised about them.

e.

Identify and apply the methods through which stakeholder groups affect the design and implementation of agriculture, food, and nutrition policies.

f.

Recognize your potential to engage in and influence food and nutrition policy throughout your career.

Rules & Requirements

Credit Restrictions: Students will receive no credit for PB HLTH W206B after completing PB HLTH 206B. A deficient grade in PB HLTH W206B may be removed by taking PB HLTH 206B.

Repeat rules: Course may be repeated for credit with advisor consent.

Hours & Format

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

Online: This is an online course.

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructor: Thompson

Food and Nutrition Policy: [Read Less](#) [-]

PB HLTH 207 Transforming the Food System: From Agroecology to Population Health 3 Units

Terms offered: Fall 2022, Fall 2021

This course will take a solutions-oriented approach to addressing the pressing problems in current food systems. We will explore strategies used by the disciplines of agroecology, policy, law, public health, and business in working to improve food systems and apply their varied approaches to real-world case studies. Through weekly readings, discussions, and problem-solving sessions with Berkeley's leading food systems experts, students will gain a broad understanding of food systems and the leverage points that can be targeted to improve the health of people and the planet.

Transforming the Food System: From Agroecology to Population Health: [Read More](#) [+]

Objectives & Outcomes

Course Objectives: 1.

Define and explain food systems, explain interdependence within those systems, and understand their impacts on the health of people and the planet

2.

Identify leverage points for transforming food systems based on evidence

3.

Understand various strategies—legal, political, agro-ecological, economic, behavioral, etc.—that different disciplines use to target leverage points

4.

Articulate different perspectives on food systems issues and explain the pros and cons of strategies for food systems change

5.

Adapt communication styles to various audiences and media

Rules & Requirements

Prerequisites: Graduate student standing

Repeat rules: Course may be repeated for credit with advisor consent.

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: Madsen

Transforming the Food System: From Agroecology to Population Health: [Read Less](#) [-]

PB HLTH 207A Public Health Aspects of Maternal and Child Nutrition 2 or 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

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.

Public Health Aspects of Maternal and Child Nutrition: Read More [+]

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

Public Health Aspects of Maternal and Child Nutrition: Read Less [-]

PB HLTH 209A Introduction to Plant-Centric Food Systems 1 Unit

Terms offered: Spring 2022

This is an energizing and exciting symposium that explores the robust opportunities and accompanying challenges of plant-forward solutions. The gathering is convened to underscore the urgency of shifting to plant-based diets for healthier, more equitable, and resilient food systems and to explore how students will play a pivotal role in the transformation of the food system. Plant Futures is the first program at UC Berkeley to feature in depth multidisciplinary conversation aimed at exploring the role and importance of plant-based foods as a critical lever for change, and provides a unique opportunity for students to directly connect to prominent leaders, creators and influencers and forge pathways for future professional engagement.

Introduction to Plant-Centric Food Systems: Read More [+]

Objectives & Outcomes

Course Objectives: 1.

Deepen students' knowledge of the impacts of our diets and current food production systems on personal health and planetary boundaries that directly drive climate change by understanding the urgent challenges and most critical levers for transformation in food systems.

2.

Build critical systems thinking competencies at the intersection of agriculture, nutrition, climate science, behavioral science, economics, entrepreneurship and ethics with plant-centric food systems.

3.

Provide a multisectoral opportunity for students to build community and connect with leaders in different disciplines working in the plant-based sector through networking opportunities that converge the scientific, business, and academic communities.

4.

Create an opportunity for students to engage and directly collaborate with food industry business leaders, experts, and researchers working on the forefront of innovation and sustainability, specifically in the plant-based sector.

5.

Provide students with frameworks, examples and skill sets to design and implement innovative plant-centered food systems that are sustainable and driven by public health principles.

6.

Equip students with the foundation and tools to become advocates and change makers for plant-centered food systems in their personal lives, on campus, and beyond. Ultimately, prepare students at a personal and professional level to accelerate the transition to a healthy, sustainable and just food system.

Hours & Format

Fall and/or spring: 1 weeks - 20 hours of seminar per week

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructor: Rosenzweig

Introduction to Plant-Centric Food Systems: Read Less [-]

PB HLTH 209B Plant Futures Challenge Lab 3 Units

Terms offered: Fall 2022, Spring 2022

A collaborative, multidisciplinary applied learning journey in systems entrepreneurship, ethical leadership and innovation models intended to accelerate the transition to a healthy, sustainable and just food system.

Plant Futures Challenge Lab: [Read More](#) [+]

Objectives & Outcomes

Course Objectives: 1.

Develop systems-thinking and analysis capabilities while developing 'food-systems intelligence' and 'triple-bottom line' business design capabilities. Understand the complex interdependencies and trade-offs involved in solving food systems challenges.

2.

Develop an understanding of mission-driven organizational strategies and practices, based on clear ethical principles.

3.

Combine and apply entrepreneurial skill sets, mind sets and tool sets needed for leadership, team building, and initiating and managing innovative change. Learn to transform an idea into a tangible, viable plan of action.

4.

Learn to recognize and "size" unmet needs, issues, and opportunities in the food system and apply creativity, research, and discipline to create the type of solutions that make meaningful, lasting impacts.

5.

Expand your personal capacities for collaboration while reaching out of your comfort zone by contacting and enrolling experts who can assist your project.

6.

Lead and collaborate with other students from different disciplines across the University to apply the team building strategies and leadership necessary to develop a plant-forward solution to solve complex food systems challenges.

7.

Grow and cultivate your professional network and experience by building deep relationships with mentors and professional allies.

8.

Develop, through practice, the foundation and tools needed to become advocates for plant-forward solutions in your personal lives, at Berkeley, and beyond!

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: Rosenzweig, Gheihman

Plant Futures Challenge Lab: [Read Less](#) [-]

PB HLTH W209 Comparative Health Systems 3 Units

Terms offered: Spring 2021, Spring 2020, Spring 2018

In the past decade, health systems and their role in global health have received increasing focus. While disease-focused, 'vertical programs', such as malaria and HIV/AIDs still command the lion's share of donor resources, it has become clear that the sustainability of disease programs depends on embedding them into a country's health system. This course provides a real world, practical understanding of health systems, based on a solid academic foundation. It introduces current debates about health systems, health financing, and universal health coverage in the international community. Students will use five key structural questions to analyze health care systems and their performance on quality, cost and access metrics.

Comparative Health Systems: [Read More](#) [+]

Hours & Format

Fall and/or spring: 8 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: Feachem

Comparative Health Systems: [Read Less](#) [-]

PB HLTH 210 Foundations of Maternal and Child Health Policy, Practice and Science 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

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

Foundations of Maternal and Child Health Policy, Practice and Science: Read More [+]

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

Foundations of Maternal and Child Health Policy, Practice and Science: Read Less [-]

PB HLTH 210B Adolescent Health 3 Units

Terms offered: Spring 2022, Fall 2021, Spring 2021

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.

Adolescent Health: Read More [+]

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

Adolescent Health: Read Less [-]

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

Terms offered: Fall 2015, Fall 2014, Fall 2013

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.

Needs Assessment in Maternal and Child Health: Read More [+]

Rules & Requirements

Prerequisites: Graduate student in Public Health

Repeat rules: Course may be repeated for credit without restriction.

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

Needs Assessment in Maternal and Child Health: Read Less [-]

PB HLTH 210D Reproductive and Perinatal Epidemiology 2 Units

Terms offered: Spring 2020, Spring 2017, Spring 2016

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.

Reproductive and Perinatal Epidemiology: [Read More](#) [+]

Rules & Requirements

Prerequisites: Graduate standing in epidemiology or consent of instructor

Repeat rules: Course may be repeated for credit without restriction.

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

Reproductive and Perinatal Epidemiology: [Read Less](#) [-]

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

Terms offered: Fall 2022, Fall 2021, Fall 2020

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.

Practicum in MCH Data Analysis I: [Read More](#) [+]

Rules & Requirements

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

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: Harley

Practicum in MCH Data Analysis I: [Read Less](#) [-]

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

Terms offered: Spring 2022, Spring 2021, Spring 2020

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.

Practicum In MCH Data Analysis II: [Read More](#) [+]

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: Letter grade.

Instructor: Harley

Practicum In MCH Data Analysis II: [Read Less](#) [-]

PB HLTH 210J Maternal, Child & Adolescent Health Journal Club 2 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

The purpose of this seminar is to learn how to critically review peer-reviewed articles in the field of maternal, child, adolescent and family health (MCAH). This is a required course for all Maternal, Child, and Adolescent Health MPH students and some MCAH Specialty areas. Others may enroll with permission of the instructor.

Maternal, Child & Adolescent Health Journal Club: [Read More](#) [+]

Rules & Requirements

Repeat rules: Course may be repeated for credit without restriction.

Hours & Format

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

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Offered for satisfactory/unsatisfactory grade only.

Instructor: Eskenazi

Maternal, Child & Adolescent Health Journal Club: [Read Less](#) [-]

PB HLTH 210K Foundations of Maternal, Child, and Adolescent Health Leadership 2 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

This course introduces students to theories and concepts of leadership and explores ways of applying these to maternal, child, and adolescent health issues. This course provides opportunities for students to develop skills and resources for further developing their own leadership. The skills taught in this course will prepare students to become dynamic, thoughtful leaders in the field of MCAH with a particular focus on continued self-reflection and development to lead programs that address the diverse issues facing MCAH populations.

Foundations of Maternal, Child, and Adolescent Health Leadership: Read More [\[+\]](#)

Rules & Requirements

Repeat rules: Course may be repeated for credit without restriction.

Hours & Format

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

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Offered for satisfactory/unsatisfactory grade only.

Instructor: Strouse

Foundations of Maternal, Child, and Adolescent Health Leadership: Read Less [\[-\]](#)

PB HLTH 211 Health and Human Rights 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

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

Health and Human Rights: Read More [\[+\]](#)

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: Iacopino, Weinstein

Health and Human Rights: Read Less [\[-\]](#)

PB HLTH 212A International Maternal and Child Health 2 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

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.

International Maternal and Child Health: Read More [\[+\]](#)

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

International Maternal and Child Health: Read Less [\[-\]](#)

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

Terms offered: Spring 2016, Spring 2015, Spring 2014

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.

Migration and Health: A U.S.-Mexico Binational Perspective: Read More [\[+\]](#)

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

Migration and Health: A U.S.-Mexico Binational Perspective: Read Less [\[-\]](#)

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

Terms offered: Spring 2016, Spring 2015, Spring 2014

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.

Private Sector Health Services in Developing Countries: Read More [+]

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

Private Sector Health Services in Developing Countries: Read Less [-]

PB HLTH W212 Foundations of Global Health 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

This course introduces students to the basic principles of global public health that are used to improve population health at all levels. The course will start with an introduction to essential concepts from public health disciplines that are the foundations of global health practice. Students will then apply these concepts to current global health challenges through course activities, assignments, and readings that will provide a real world context. Global health experts will share their experiences and lessons learned from implementing global health research and programs. Throughout the course, students will gain critical and creative-thinking experience in applying tools and frameworks towards addressing diverse global health needs.

Foundations of Global Health: Read More [+]

Hours & Format

Fall and/or spring: 8 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.

Instructors: Reingold, Fong

Foundations of Global Health: Read Less [-]

PB HLTH 213A Family Planning, Population Change, and Health 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

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.

Family Planning, Population Change, and Health: Read More [+]

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

Family Planning, Population Change, and Health: Read Less [-]

PB HLTH W213 Global Health Ethics 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2019

This course provides an overview to ethical issues within a global health context. The course starts with an introduction to ethical frameworks, theories, and historical references that elevate the ethics conversation to the global stage. The course will then link theory to practice as we delve deeper into ethical issues in research, experiential learning, and delivery. We will consider ethical questions about the discipline of global public health and the roles of governments, academic institutions, organizations, health professions, and members of the public as stewards of health. Students will gain a deeper understanding of the diverse international perspectives on the concepts of ethics and health.

Global Health Ethics: Read More [+]

Hours & Format

Fall and/or spring: 8 weeks - 6 hours of web-based lecture per week

Summer: 8 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.

Instructors: Haar, Dandu, DeBoer

Global Health Ethics: Read Less [-]

PB HLTH 214 Eat.Think.Design 3 Units

Terms offered: Spring 2018, Spring 2017, Spring 2016

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.

Eat.Think.Design: Read More [\[+\]](#)

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: Sandhu, Madsen

Eat.Think.Design: Read Less [\[-\]](#)

PB HLTH 215 Anti-Racist and Racial Justice Praxis Spring Student Elective 3 Units

Terms offered: Spring 2022, Spring 2000, Spring 1999

The Anti-Racist and Racial Justice Praxis Spring Student Elective is a semester-long student elective course for continuing students. This class will cultivate up to 40 student champions to develop an anti-racist analysis of public health, present a set of anti-racist public health tools, and build skills necessary for advancing an anti-racist agenda within the field.

Anti-Racist and Racial Justice Praxis Spring Student Elective: Read More [\[+\]](#)

Objectives & Outcomes

Course Objectives: Analyze how systems of racism operate in a modern context and impact health

Apply new skills when working to implement an anti-racist agenda at the institutional and governmental levels.

Recognize common challenges and problems in racial dialogue and learn skills to overcome these issues.

Rules & Requirements

Prerequisites: A Health and Social Behavior breadth course; PBHLTH 200L, PBHLTH W200G or PBHLTH 203A

Hours & Format

Fall and/or spring: 15 weeks - 2.5 hours of lecture per week

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructors: Malawa, Gaarde

Anti-Racist and Racial Justice Praxis Spring Student Elective: Read Less [\[-\]](#)

PB HLTH 216A Biological Embedding of Social Factors 2 Units

Terms offered: Fall 2019, Fall 2017, Spring 2016

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.

Biological Embedding of Social Factors: Read More [+]

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

Biological Embedding of Social Factors: Read Less [-]

PB HLTH 217C Aging and Public Health 3 Units

Terms offered: Spring 2017, Spring 2016, Spring 2015

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.

Aging and Public Health: Read More [+]

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

Aging and Public Health: Read Less [-]

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

Terms offered: Spring 2017, Spring 2015, Spring 2014, Spring 2013

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.

Biological and Public Health Aspects of Alzheimer's Disease: Read More [\[+\]](#)

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

Biological and Public Health Aspects of Alzheimer's Disease: Read Less [\[-\]](#)

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

Terms offered: Fall 2022, Fall 2021, Fall 2020

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

Evaluation of Health and Social Programs: Read More [\[+\]](#)

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.

Evaluation of Health and Social Programs: Read Less [\[-\]](#)

PB HLTH W218 Evaluation of Health and Social Programs 3 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

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.

Evaluation of Health and Social Programs: Read More [\[+\]](#)

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

Evaluation of Health and Social Programs: Read Less [\[-\]](#)

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

Terms offered: Spring 2022, Spring 2020, Spring 2018

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.

Community-Based Participatory Research in Public Health: Read More [\[+\]](#)

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

Community-Based Participatory Research in Public Health: Read Less [\[-\]](#)

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

Terms offered: Fall 2015, Fall 2013, Fall 2012

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. Social and Behavioral Health Research: Introduction to Survey Methods: Read More [\[+\]](#)

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

Social and Behavioral Health Research: Introduction to Survey Methods: Read Less [\[-\]](#)

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

Terms offered: Spring 2022, Spring 2021, Spring 2020

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.

Introduction to Qualitative Methods in Public Health Research: Read More [\[+\]](#)

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

Introduction to Qualitative Methods in Public Health Research: Read Less [\[-\]](#)

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

Terms offered: Summer 2022 Second 6 Week Session, Spring 2022, Spring 2021

This course provides a thorough background in the design, administration, and interpretation of a range of survey strategies (e.g., telephone, face-to-face, mail and internet surveys) within the broader context

of a research or evaluation project. Topics will include formulation of study aims, developing an appropriate research design, protection of human subjects and proper conduct of research, sample size calculations, recruitment strategies, survey administration, and development of an analysis plan. Class topics are designed to convey practical knowledge through topical lectures, group activities, partner feedback and a survey design project consisting of two parts: a survey instrument and a research plan.

Social and Behavioral Health Research: Introduction to Survey Methods: Read More [\[+\]](#)

Objectives & Outcomes

- Student Learning Outcomes:**
1. Formulate research questions and develop testable hypotheses appropriate for survey research
 2. Identify appropriate survey tools to address a particular research question and hypothesis
 3. Define and operationalize constructs and variables for survey research
 4. Assess the reliability and validity of survey measures
 5. Select a sampling design optimized for examining a particular research question and hypothesis
 6. Demonstrate the ability to identify and address cultural and ethical considerations in conducting survey research, particularly involving diverse and special populations (including children, the elderly, and those diagnosed and treated for acute and chronic conditions) where relevant
 7. Develop an analysis plan and dissemination plan linked to research questions, hypotheses and a survey instrument

Hours & Format

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

Summer: 7 weeks - 6 hours of lecture per week

Online: This is an online course.

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructor: Sheats

Social and Behavioral Health Research: Introduction to Survey Methods: Read Less [\[-\]](#)

PB HLTH 220 Health Policy Decision-Making 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

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.

Health Policy Decision-Making: Read More [+]

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

Health Policy Decision-Making: Read Less [-]

PB HLTH 220C Health Risk Assessment 3 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

This course introduces the basic scientific principles of environmental health risk assessment, develops the understanding necessary to carry out and interpret quantitative risk assessments, and describes the context in which decisions manage environmental health risks are made. The course presents the quantitative methods used to assess the human health risks associated with exposure to microbial and chemical agents, focusing on the four major components of risk assessment: hazard identification, dose-response assessment, exposure assessment and risk characterization. The course examines the application of environmental health risk assessment to contemporary issues including the associated complexities, challenges and controversies.

Health Risk Assessment: Read More [+]

Rules & Requirements

Prerequisites: 250A, 270A-270B recommended. 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.

Instructors: Zhang, Smith

Health Risk Assessment: Read Less [-]

PB HLTH 220D Health Policy Advocacy 3 Units

Terms offered: Fall 2022, Fall 2021, Spring 2021

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.

Health Policy Advocacy: Read More [+]

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

Health Policy Advocacy: Read Less [-]

PB HLTH 220E Global Health Policy 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

This course will provide an intensive, case-based introduction to global health policy. Students will simulate working on teams asked to advise Ministries of Health in low- and middle-income countries and other global policymaking institutions grappling with health policy questions. Over a series of four cases, the course will introduce students to key concepts in health policy and economics, including allocating scarce resources, pandemic response, financial incentives to shape provider behaviors, and policies to influence the private sector to improve population health. Students will also become familiar with the major actors and institutions that shape international health policy.

Global Health Policy: Read More [+]

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: Bertozzi

Global Health Policy: Read Less [-]

PB HLTH W220M Health Policy Methods 3 Units

Terms offered: Fall 2022, Summer 2022 Second 6 Week Session, Fall 2021

This course serves as an introduction to key topics in health policy making in the United States, with a focus on the policy process and policy analysis methods. Using the policy analysis framework of Eugene Bardach's Eightfold Path first introduced in PBHLTH W200E, the course will explore the entire policy analysis process from the identification of a problem, to the evaluation of policy solutions, and finally to the techniques and formats for effective health policy communications. This analysis method is contextualized within the process of public policy making within the U.S. government.

Health Policy Methods: Read More [\[+\]](#)

Objectives & Outcomes

Course Objectives: •

Apply learned policy analysis skills to proposed and existing public health policies.

- Build critical policy analysis skills to identify and evaluate the methods used for developing policy alternatives and understand the impact of existing public health policies.

• Critique the role of research and evidence in public health policy formation and evaluation.

• Describe our country's institutional players (i.e., legislative, administrative, judicial), their roles in policy making and how to influence policy outcomes.

• Leverage critical analysis tools of language and framing to develop and advocate health policies in verbal and written communication deliverables.

Student Learning Outcomes: •

Conduct policy advocacy: understand the gaps in community needs and articulate these needs in the policy setting. Develop innovative strategies for influencing health policy for diverse groups.

• Conduct policy analysis: evaluate and analyze policy solutions that are culturally competent. Communicate evidence and recommendations succinctly and persuasively.

• Deepen understanding of the dimensions of the policy-making process, including the roles of ethics and evidence.

• Examine current public health issues and their impacts on public health and health equity.

• Learn about the health policy context and the institutions, stakeholders, advocacy groups and processes that shape policy outcomes.

• Recognize the disparate impacts of policies on communities with intersectional identities.

Rules & Requirements

Prerequisites: PB HLTH W200E

Credit Restrictions: Students will receive no credit for PB HLTH W220M after completing PB HLTH 220. A deficient grade in PB HLTH W220M may be removed by taking PB HLTH 220.

Hours & Format

Fall and/or spring:

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

Terms offered: Spring 2017, Spring 2015, Spring 2013

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.

Mental Health Policies, Programs, and Services: Read More [\[+\]](#)

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

Mental Health Policies, Programs, and Services: Read Less [\[-\]](#)

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

Terms offered: Spring 2018, Spring 2016, Fall 2013

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.

Understanding and Overcoming Health Care Disparities: Read More [\[+\]](#)

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

Understanding and Overcoming Health Care Disparities: Read Less [\[-\]](#)

PB HLTH 222A Biomedical Innovation Policy 3 Units

Terms offered: Spring 2022, Spring 2021, Fall 2020

Course examines the policy framework for biomedical technology, including medical devices, drugs, diagnostics, digital therapeutics and algorithms. Emphasis will be placed on the funding of research and development, the protection of intellectual property, FDA market authorization, insurance coverage and algorithm design. Focus will be on the US but will examine industrial policy and innovation nationalism within a global context. Students are required to read peer-reviewed articles, keep up with journalistic reports and participate in classroom discussions. Lectures will be pre-recorded and posted on bCourses and it is expected that students will have watched these lectures and done the readings prior to class.

Biomedical Innovation Policy: Read More [+]

Objectives & Outcomes

Course Objectives: •

Compare the strengths and limits of alternative mechanisms for stimulating R&D investments in the life sciences: research grants, commercialization grants, tax credits, patent-protected pricing, innovation prizes, and advanced market commitments, among others.

- Describe the basic principles and applications of intellectual property policy and the tradeoffs between greater access to current treatments. via low product prices, and greater incentives for investment in new treatments, via high prices.

- o Intellectual property policy with respect to generics and biosimilars

- Discuss the basic structure of regulatory market authorization:

- o FDA review of safety and efficacy for pharmaceuticals

- o Accelerated review and the evolution of evidentiary demands

- o Market authorization for medical devices, diagnostic tests, digital therapeutics

- Explain the basic principles of health technology assessment and their applicability to insurance coverage and pricing.

Rules & Requirements

Prerequisites: Graduate standing. Undergraduates will be considered on case-by-case basis

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

Biomedical Innovation Policy: Read Less [-]

PB HLTH W222A Biomedical Innovation Policy 3 Units

Terms offered: Spring 2022

This course examines the policy framework for biomedical technology, including medical devices, drugs, diagnostics, digital therapeutics, and algorithms. Emphasis will be placed on the funding of research and development, the protection of intellectual property, FDA market authorization, insurance coverage, and algorithm design. The focus will be on the US but we will examine industrial policy and innovation nationalism within a global context. Students will be required to read peer-reviewed articles, keep up with journalistic reports, and participate in online discussions.

Biomedical Innovation Policy: Read More [+]

Objectives & Outcomes

Course Objectives:

Be able to explain the principles of health technology assessment (HTA) and the challenges raised in their application to insurance coverage and pricing for Medicare.

#

Compare the strengths and limits of alternative mechanisms for stimulating R&D investments in the life sciences: research grants, commercialization grants, tax credits, patent-protected pricing, and innovation prizes, among others. Be able to apply these principles to develop a package of policy incentives to encourage investment in novel antibiotics.

#

Describe the basic principles and applications of intellectual property policy and the tradeoffs between greater access to current treatments. via low product prices, and greater incentives for investment in new treatments, via high prices.

#

Intellectual property policy with respect to generics and biosimilars

#

Discuss the structure of regulatory market authorization, including FDA review of safety and efficacy for pharmaceuticals and market authorization for medical devices, diagnostic tests, digital therapeutics. Apply these principles in video debate over FDA accelerated review.

Rules & Requirements

Credit Restrictions: Students will receive no credit for PB HLTH W222A after completing PB HLTH 222A. A deficient grade in PB HLTH W222A may be removed by taking PB HLTH 222A.

Hours & Format

Fall and/or spring: 8 weeks - 6 hours of lecture per week

Online: This is an online course.

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructor: Robinson

Biomedical Innovation Policy: Read Less [-]

PB HLTH 223C Strategic Management and the Health Sector 3 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

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, particular attention given to continuous quality improvement/total quality management. Strategic Management and the Health Sector: Read More [+]

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 - 3 hours of lecture per week

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructors: Shortell, Oxendine

Strategic Management and the Health Sector: Read Less [-]

PB HLTH 223D Foundations of Health Policy and Management 2 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

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. Foundations of Health Policy and Management: Read More [+]

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

Foundations of Health Policy and Management: Read Less [-]

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

Terms offered: Spring 2022, Spring 2021, Spring 2020

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. Capstone Seminar in Health Policy and Management: Read More [+]

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

Capstone Seminar in Health Policy and Management: Read Less [-]

PB HLTH W223 Strategy in Health Care Organizations 3 Units

Terms offered: Summer 2022 Second 6 Week Session, Summer 2021 Second 6 Week Session, Spring 2020

This course is an introduction to health care strategy in which students will have an immersive, practical, hands-on experience in the strategic management of a real or fictitious health care organization. This course will familiarize students with the requisite skills and techniques to lead strategic change at a division, department, or enterprise level within a health care organization.

Strategy in Health Care Organizations: Read More [+]

Objectives & Outcomes

Course Objectives: 1.

Strategic Management Theory and Leading Practices. Students will learn this through a combination of lectures, readings from the textbook and business journal articles, and "how to" instructional videos.

2.

Real World Experience. Students will learn this through a combination of Executive Interviews, Case Studies, and personal reflection.

3.

Hands-on Practice. Students will learn this through a carefully designed, team-based practical experience in which they for a real or fictitious health care organization of their choice.

Student Learning Outcomes: Adjust organizational strategy in response to real-time crises.

Define and align their organization's mission, vision, values, and strategy.

Learn how to define and measure key performance indicators (KPIs).

Learn how to successfully implement a strategy by creating a Strategic Roadmap, high level Project Plan, and Risk Mitigation Plan.

Learn various common strategies, including: Growth by Concentration/Horizontal Integration, Growth by Related Diversification/Vertical Integration, and Innovation.

Learn various tools and techniques that may be used in informing a strategy including: Value Chain Analysis, Benchmarking, SWOT Analyses, Root Cause Analysis, Porter's Five Forces Model, Scenario Planning, and Balanced Scorecards.

Understand the important influences of leadership and culture on the successful execution of the strategy.

Understand the pros and cons of strategic alternatives including: Internal Development, Internal New Venture Creation, Investment in New Ventures, Acquisition, Mergers, Joint Ventures/Strategic Alliances/Partnerships, and Innovation.

Hours & Format

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

Summer: 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: Webb

Strategy in Health Care Organizations: Read Less [-]

PB HLTH 224A Organizational Behavior and Management in Health Care 3 Units

Terms offered: Fall 2021, Fall 2020, Spring 2019

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.

Organizational Behavior and Management in Health Care: Read More [+]

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: Rodriguez

Organizational Behavior and Management in Health Care: Read Less [-]

PB HLTH 224E Health Care Quality 3 Units

Terms offered: Spring 2022, Fall 2019, Fall 2018

The course focuses on the quality of Health Care in the United States, including variations and determinants in quality and best practices in improving quality. Students will develop an understanding of conceptual frameworks for Health Care problem solving and quality improvement.

As part of the class they will gain experience in designing a Health Care quality improvement plan. The course is designed for Graduate students interested in healthcare delivery.

Health Care Quality: Read More [+]

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

Health Care Quality: Read Less [-]

PB HLTH W224 Organizational Behavior and Management in Health Care 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

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.

Organizational Behavior and Management in Health Care: Read More [+]

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: Rodriguez

Organizational Behavior and Management in Health Care: Read Less [-]

PB HLTH W225A Introduction to Applied Implementation Science 1 Unit

Terms offered: Spring 2022

This introductory course will serve as the gateway for students into the world of applied IS. It has been designed keeping in mind students looking to gain a preliminary understanding of the principles and practice of IS. The module will provide a broad overview of the theoretical and evidence-based models and frameworks used in the field as well as the barriers and challenges faced by implementation scientists in the real-world application of evidence-based practices, programs and policies.

Introduction to Applied Implementation Science: Read More [+]

Objectives & Outcomes

Course Objectives: Apply varied frameworks for the translation of evidence

Examine and evaluate different strategies/tools of implementation science

Gain a methodological understanding of implementation science

Identify and scientific evidence and discern its quality and relevance

Hours & Format

Fall and/or spring: 8 weeks - 1 hour of lecture per week

Online: This is an online course.

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructor: Bertozzi

Introduction to Applied Implementation Science: Read Less [-]

PB HLTH W225B Implementation Science Case Studies in Low and Middle Income Countries 1 Unit

Terms offered: Spring 2022

This course provides hands-on experience for students to apply their learnings from "PH W225A Introduction to Applied Implementation Science" to global policy contexts. It has been designed to provide practical exposure to the world of Implementation Science, by employing the models and frameworks discussed in the introductory module to diverse public health programs around the world.

Implementation Science Case Studies in Low and Middle Income Countries: Read More [+]

Objectives & Outcomes

Course Objectives: Adapt evidence to different geographical and cultural contexts

Analyze and streamline scientific evidence

Assess potential costs and benefits of introducing and implementing an intervention

Design an implementation methodology while accounting for local constraints

Identify potential challenges in implementation success and failures

Measure the impact of an intervention on select predetermined health outcomes

Optimize resources and manage stakeholders to effectively run programs

Rules & Requirements

Prerequisites: Students need to have taken PBHLTH W225A: Introduction to Applied Implementation Science

Hours & Format

Fall and/or spring: 8 weeks - 1 hour of lecture per week

Online: This is an online course.

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructor: Bertozzi

Implementation Science Case Studies in Low and Middle Income Countries: Read Less [-]

PB HLTH 226A Health Economics A 3 Units

Terms offered: Fall 2021, Fall 2020, Fall 2019

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.

Health Economics A: Read More [+]

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: Robinson

Health Economics A: Read Less [-]

PB HLTH 226B Health Economics B 2 Units

Terms offered: Fall 2017, Fall 2016, Fall 2015

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.

Health Economics B: Read More [+]

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 - 2 hours of lecture per week

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructors: Robinson, Whaley

Health Economics B: Read Less [-]

PB HLTH 226C Economics of Population Health 3 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

This course examines the economic theories and evidence underpinning population health interventions and policies. Topics include the economic evaluation of community and clinical preventive services, systemic population health management innovations, behavioral economics approaches, and policies targeting upstream social determinants of population health. A brief module on cost-effectiveness analysis is included.

Economics of Population Health: Read More [+]

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: Dow

Economics of Population Health: Read Less [-]

PB HLTH 226D Global Health Economics 3 Units

Terms offered: Spring 2019, Fall 2017, Fall 2015

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.

Global Health Economics: Read More [+]

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

Global Health Economics: Read Less [-]

PB HLTH W226A Health Economics 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

This online course provides an overview of the United States healthcare system using a microeconomic lens. Students will be introduced to the microeconomic theory and empirical students that will deepen their understanding of how consumers, firms and the government influence healthcare expenditures (including its quantity and prices), healthcare quality, and patient health outcomes. These economic models will enable students to predict how changes in consumer behavior, the industrial organization of firms, and government policies affect healthcare and health outcomes.

Health Economics: Read More [\[+\]](#)

Rules & Requirements

Prerequisites: Introduction to Health Policy and Management (PH W200E)

Hours & Format

Fall and/or spring: 8 weeks - 6 hours of web-based lecture per week

Summer: 8 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

Health Economics: Read Less [\[-\]](#)

PB HLTH W226C Economics of Population Health 3 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

This 3-unit online course will explore the economics evidence base and tools for evaluating economic factors and interventions that shape the health of populations. The course will include a substantial economic evaluation module to teach cost-effectiveness analysis tools.

Economics of Population Health: Read More [\[+\]](#)

Rules & Requirements

Prerequisites: Graduate Standing

Hours & Format

Fall and/or spring: 7 weeks - 14 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: Dow

Economics of Population Health: Read Less [\[-\]](#)

PB HLTH W226F Cost-Effectiveness Analysis 1 Unit

Terms offered: Spring 2022, Spring 2021, Spring 2020

This course teaches students cost-effectiveness analysis and related tools in a compact 3-week online format. Students will learn when and why to use alternative economic evaluation methods to assess benefits relative to costs of health policies and interventions. They will also learn to interpret and critique such analyses, and to conduct basic cost-effectiveness analyses themselves.

Cost-Effectiveness Analysis: Read More [\[+\]](#)

Hours & Format

Fall and/or spring: 3 weeks - 5 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: Dow

Cost-Effectiveness Analysis: Read Less [\[-\]](#)

PB HLTH 227A Health Care Finance 3 Units

Terms offered: Spring 2019, Spring 2017, Fall 2015

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.

Health Care Finance: Read More [\[+\]](#)

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

Health Care Finance: Read Less [\[-\]](#)

PB HLTH W227A Health Care Finance 3 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

This 3-unit online course provides the student with an understanding of the importance of finance in healthcare and provides basic financial and accounting skills needed by all health professionals. The course introduces student to concepts in both financial and managerial accounting and teaches students relevant financial techniques used by managers and those charged with key capital investment decisions including: ratio analysis, cost-volume profit analysis, discounted cash flow and forecasting.

Health Care Finance: [Read More](#) [+]

Rules & Requirements

Credit Restrictions: Students who have completed on campus PB HLTH 227A will not receive credit for W227A

Hours & Format

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

Summer: 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: MacPherson

Health Care Finance: [Read Less](#) [-]

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

Terms offered: Spring 2022, Spring 2020, Spring 2018

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.

Analytic Methods for Health Policy and Management: [Read More](#) [+]

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

Analytic Methods for Health Policy and Management: [Read Less](#) [-]

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

Terms offered: Spring 2015

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.

Health Care Operations and Management Methods: [Read More](#) [+]

Rules & Requirements

Prerequisites: PB HLTH 142 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

Health Care Operations and Management Methods: [Read Less](#) [-]

PB HLTH C233 Healthy Cities 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020, Fall 2019

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.

Healthy Cities: [Read More](#) [+]

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

Healthy Cities: [Read Less](#) [-]

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

Terms offered: Spring 2016, Spring 2015, Spring 2014, Spring 2013
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. Green Chemistry: An Interdisciplinary Approach to Sustainability: Read More [\[+\]](#)

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

Green Chemistry: An Interdisciplinary Approach to Sustainability: Read Less [\[-\]](#)

PB HLTH 235 Impact Evaluation for Health Professionals 3 Units

Terms offered: Fall 2016, Fall 2015, Fall 2014

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.

Impact Evaluation for Health Professionals: Read More [\[+\]](#)

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

Impact Evaluation for Health Professionals: Read Less [\[-\]](#)

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

Terms offered: Spring 2022, Fall 2021, Spring 2021

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.

U.S. Food and Drug Administration, Drug Development, and Public Health: Read More [\[+\]](#)

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

U.S. Food and Drug Administration, Drug Development, and Public Health: Read Less [\[-\]](#)

PB HLTH W236A Regulatory Science, Drug Development and Public Health 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

This basic and introductory course in regulatory science addresses the demand for increased training in the US and abroad by providing an overview of the basic elements of regulation of health practice and health products; providing students with information needed to understand the most important health practice and product regulation issues from the perspective of current regulatory standards, their standards for evidence and the role of innovation in regulatory science.

Regulatory Science, Drug Development and Public Health: Read More [+] **Hours & Format**

Fall and/or spring: 8 weeks - 6 hours of web-based lecture per week

Summer: 8 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: Miller

Regulatory Science, Drug Development and Public Health: Read Less [-]

PB HLTH 237A Theories and Methods in Health Policy and Health Services Research 2 or 4 Units

Terms offered: Fall 2020, Fall 2018

The first half of the course focuses on the application of organization theories to health sector organizations. The second half of the course focuses on the application of public administration and political science theories to health sector organizations. Students will also be exposed to basic research designs, logic models and hypothesis development. Emphasis is placed on critique of existing theories and the associated empirical literature. This PhD seminar course is primarily intended for first year PhD students in the Berkeley PhD Program in Health Policy administered by the School of Public Health on behalf of the Graduate School. The course is also open with the consent of the instructors to students in other PhD programs,

Theories and Methods in Health Policy and Health Services Research: Read More [+]

Rules & Requirements

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/Graduate

Grading: Letter grade.

Instructors: Shortell, Keller

Theories and Methods in Health Policy and Health Services Research: Read Less [-]

PB HLTH 237B Theories and Methods in Health Policy and Health Services Research B 2 or 4 Units

Terms offered: Spring 2021, Spring 2019

The first half of the course focuses on major economics theories and frameworks relevant to the study of health policy and health services research. The second half of the course focuses on the application of behavioral and social science theories and methods to population health research. Students will also be exposed to basic research designs, logic models, and hypothesis development. Emphasis is placed on critique of existing theories and the associated empirical literature. This PhD seminar course is primarily intended for first year PhD students in the Berkeley PhD program in Health Policy administered by the School of Public Health on behalf of the Graduate School.

Theories and Methods in Health Policy and Health Services Research B: Read More [+]

Rules & Requirements

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/Graduate

Grading: Letter grade.

Instructors: Dow, Deardorff, Rodriguez

Theories and Methods in Health Policy and Health Services Research B: Read Less [-]

PB HLTH 237C Health Policy Research Colloquium 1 Unit

Terms offered: Fall 2022, Spring 2022, Fall 2021

The Health Policy Research Colloquium series is a program of empirical research seminars focused on the most important issues facing patients, providers health care plans, purchases, and policymakers today. It provides an opportunity for Health Policy doctoral students across all stages of completion to meet regularly, analyse and critique ongoing research, and participate in stimulating discussions with faculty and guest speakers. Students are required to register for and attend the Health Policy Research Colloquium during their first two years of their PhD training.

Health Policy Research Colloquium: Read More [\[+\]](#)

Rules & Requirements

Repeat rules: Course may be repeated for credit without restriction.

Hours & Format

Fall and/or spring: 15 weeks - 0-2 hours of colloquium per week

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Offered for satisfactory/unsatisfactory grade only.

Instructor: Shortell

Health Policy Research Colloquium: Read Less [\[-\]](#)

PB HLTH 237D Health Policy PhD Dissertation Seminar 2 Units

Terms offered: Fall 2022, Spring 2022, Fall 2021

This PhD dissertation seminar is restricted to advanced students (Year 3+) of the PhD Program in Health Policy. Draw together skills developed in coursework in the preparation and conduct of one's own dissertation project. For students already advanced to candidacy, this will entail presenting research findings. For students not yet advanced, this will involve developing the dissertation prospectus. Students learn to incorporate colleague feedback to improve research projects. Practices associated with human subjects and ethics of research are also emphasized.

Health Policy PhD Dissertation Seminar: Read More [\[+\]](#)

Rules & Requirements

Repeat rules: Course may be repeated for credit without restriction.

Hours & Format

Fall and/or spring: 15 weeks - 0-2 hours of seminar per week

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Offered for satisfactory/unsatisfactory grade only.

Instructors: Rodriguez, Scheffler, Keller

Health Policy PhD Dissertation Seminar: Read Less [\[-\]](#)

PB HLTH 237E Doctoral Seminar in Health Organizations & Management 2 Units

Terms offered: Fall 2021

The seminar is required for all first and second-year students in the PhD Program in Health Policy. This seminar focuses on organizational behavior and management research in health. The seminar covers major organizational and management theories and frameworks relevant to the study of health policy and health sector organizations.

Doctoral Seminar in Health Organizations & Management: Read More [\[+\]](#)

Objectives & Outcomes

Course Objectives: a)

Apply conceptual frameworks derived from organization/ management theories to health policy and health services research.

b)

Critique health policy and health services research studies that explore questions related to organization / management of health care.

c)

Pose relevant and important health policy research questions, and devise strategies for testing these questions empirically.

Rules & Requirements

Prerequisites: 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: Brewster, Rodriguez

Doctoral Seminar in Health Organizations & Management: Read Less [\[-\]](#)

PB HLTH 237F Doctoral Seminar in Health Economics 2 Units

Terms offered: Fall 2022

The seminar is required for all first and second-year students in the PhD Program in Health Policy. This seminar focuses on health economics. Students critically examine empirical research focused on moral hazard, adverse selection, modeling demand, cost-effectiveness analysis, market influences, provider payment, behavioral economics, and benefits design in health care and public health.

Doctoral Seminar in Health Economics: Read More [\[+\]](#)

Objectives & Outcomes

Course Objectives: a)

To provide an initial exposure to the major economic theories and frameworks relevant to the study of health policy and health services research.

b)

To introduce key empirical methodologies used by economists.

c)

To critique empirical studies conducted from the methodological perspectives typically applied by economists.

d)

To provide overall socialization to the norms and values of the component disciplines as well as the health policy and health services research field as a whole.

Rules & Requirements

Prerequisites: 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: Brown, Dow

Doctoral Seminar in Health Economics: Read Less [\[-\]](#)

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

Terms offered: Spring 2022, Spring 2021, Fall 2019

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. Introduction to Modern Biostatistical Theory and Practice: Read More [\[+\]](#)

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

Introduction to Modern Biostatistical Theory and Practice: Read Less [\[-\]](#)

PB HLTH C240B Biostatistical Methods: Survival Analysis and Causality 4 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020, Fall 2019

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.

Biostatistical Methods: Survival Analysis and Causality: Read More [+]

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

Biostatistical Methods: Survival Analysis and Causality: Read Less [-]

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

Terms offered: Fall 2022, Fall 2021, Fall 2020

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.

Biostatistical Methods: Computational Statistics with Applications in Biology and Medicine: Read More [+]

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

Biostatistical Methods: Computational Statistics with Applications in Biology and Medicine: Read Less [-]

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

Terms offered: Fall 2017, Fall 2015, Fall 2013

This course and Pb Hlth C240C/Stat C245C 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). 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. Biostatistical Methods: Computational Statistics with Applications in Biology and Medicine II: Read More [+]

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

Biostatistical Methods: Computational Statistics with Applications in Biology and Medicine II: Read Less [-]

PB HLTH C240E Statistical Genomics 4 Units

Terms offered: Spring 2013, Fall 2012, Fall 2010, Fall 2009

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. Statistical Genomics: Read More [+]

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

Statistical Genomics: Read Less [-]

PB HLTH C240F Statistical Genomics 4 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020, Spring 2018, Spring 2017

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. Statistical Genomics: Read More [+]

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

Statistical Genomics: Read Less [-]

PB HLTH 241 Intermediate Biostatistics for Public Health 4 Units

Terms offered: Spring 2022, Fall 2021, Fall 2019

In this course, students will study biostatistical concepts and modeling relevant to the design and analysis of multifactor population-based cohort and case-control studies, including matching. Key topics include: measures of association, causal inference, confounding interaction, with modeling focusing on logistic regression.

Intermediate Biostatistics for Public Health: Read More [+]

Objectives & Outcomes

Course Objectives: 1.

Draw directed acyclic graphs to show the causal relationships between covariates, intervention and outcome; and define the counterfactual outcomes of interest.

2.

Fit a logistic regression model or conduct a statistical test of independence, trend, goodness-of-fit, or homogeneity to assess statistical significance from a dataset, single 2x2 table, series of 2x2 tables, or stratified 2x2 tables.

3.

Fit a linear regression model with multiple exposure measures. Apply transformation to fit non-linear outcomes. Estimate and interpret model coefficients and obtain inference for them.

4.

Conduct and interpret analysis of variance and co-variance.

5.

Estimate, obtain inference for, and interpret the following parameters: relative risk, attributable risk, excess risk, odds ratio (pooled, adjusted, log, stratum-specific).

6.

Calculate and interpret linear and logistic regression model coefficients in the presence of confounding and interaction, and for matched studies.

7.

Use tools in the R programming language to fit linear and logistic regression models; test null hypotheses; and summarize, transform and visualize data.

8.

Be aware of other modeling strategies not covered in depth in this course, including the Cox proportional hazards model, generalized linear models and machine learning techniques.

Rules & Requirements

Prerequisites: PB HLTH 142, PB HLTH W142 or equivalent introductory course in statistics with consent of instructor

Credit Restrictions: Students will receive no credit for PB HLTH 241 after completing PB HLTH W241R. A deficient grade in PB HLTH 241 may be removed by taking PB HLTH W241R.

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: Kang-Dufour

Intermediate Biostatistics for Public Health: Read Less [-]

PB HLTH W241 Intermediate Biostatistics for Public Health 4 Units

Terms offered: Not yet offered

In this course, students will study biostatistical concepts and modeling relevant to the design and analysis of multifactor population-based cohort and case-control studies, including matching. Key topics include: measures of association, causal inference, confounding interaction, with modeling focusing on logistic regression.

Intermediate Biostatistics for Public Health: Read More [+]

Objectives & Outcomes

Course Objectives: 1.

Draw directed acyclic graphs to show the causal relationships between covariates, intervention and outcome; and define the counterfactual outcomes of interest

2.

Fit a logistic regression model or conduct a statistical test of independence, trend, goodness-of-fit, or homogeneity to assess statistical significance from a dataset, single 2x2 table, series of 2x2 tables, or stratified 2x2 tables

3.

Fit a linear regression model with multiple exposure measures. Apply transformation to fit non-linear outcomes. Estimate and interpret model coefficients and obtain inference for them.

4.

Conduct and interpret analysis of variance and co-variance

5.

Estimate, obtain inference for, and interpret the following parameters: relative risk, attributable risk, excess risk, odds ratio (pooled, adjusted, log, stratum-specific).

6.

Calculate and interpret linear and logistic regression model coefficients in the presence of confounding and interaction, and for matched studies.

7.

Use tools in the R programming language to fit linear and logistic regression models; test null hypotheses; and summarize, transform and visualize data.

8.

Be aware of other modeling strategies not covered in depth in this course, including the Cox proportional hazards model, generalized linear models and machine learning techniques

Rules & Requirements

Prerequisites: PH142, PHW142R or equivalent introductory course in statistics with consent of instructor

Credit Restrictions: Students will receive no credit for PB HLTH W241R after completing PB HLTH 241, or PB HLTH 241R. A deficient grade in PB HLTH W241R may be removed by taking PB HLTH 241, PB HLTH 241, or PB HLTH 241R.

Hours & Format

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

Online: This is an online course.

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructor: Kang-Dufour

Formerly known as: Public Health W241R

Intermediate Biostatistics for Public Health: Read Less [-]

PB HLTH C242C Longitudinal Data Analysis 4 Units

Terms offered: Fall 2022, Fall 2021, Fall 2019

Course covers statistical issues surrounding estimation of effects using data on units followed through time. Course emphasizes a regression model approach for estimating associations of disease incidence modeling, continuous outcome data/linear models & longitudinal extensions to nonlinear models forms (e.g., logistic). Course emphasizes complexities that repeated measures has on the estimation process & opportunities it provides if data is modeled appropriately. Most time is spent on 2 approaches: mixed models based upon explicit (latent variable) maximum likelihood estimation of the sources of the dependence, versus empirical estimating equation approaches (generalized estimating equations). Primary focus is from the analysis side.

Longitudinal Data Analysis: Read More [+]

Objectives & Outcomes

Course Objectives: After successfully completing the course, you will be able to:

- frame data science questions relevant to longitudinal studies as the estimation of statistical parameters generated from regression,
- derive consistent statistical inference in the presence of correlated, repeated measures data using likelihood-based mixed models and estimating equation approaches (generalized estimating equations; GEE),
- implement the relevant methods using R.
- interpret the regression output, including both coefficients and variance components and

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 laboratory per week

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructor: Hubbard

Also listed as: STAT C247C

Longitudinal Data Analysis: Read Less [-]

PB HLTH 243A Targeted Learning 4 Units

Terms offered: Fall 2022, Fall 2021, Fall 2015

PH 243A teaches students to construct efficient estimators & obtain robust inference for parameters that utilize data-adaptive estimation strategies (i.e., machine learning). Students perform hands-on implementation of novel estimators using high-dimensional data structures, providing students with a toolbox for analyzing complex longitudinal, observational & randomized control trial data. Students learn & apply the core principles of the Targeted Learning methodology, which generalizes machine learning to any estimand of interest; obtains an optimal estimator of the given estimand, grounded in theory; integrates state-of-the-art ensemble machine learning techniques; & provides formal statistical inference in confidence intervals & testing.

Targeted Learning: Read More [+]

Objectives & Outcomes

Course Objectives: Design an ensemble of machine learning algorithms, Super Learner, such that the optimality theory (i.e., oracle inequalities for the general cross-validation selector) is likely to hold for the data at-hand.

Explain the importance of asymptotic linearity and efficiency/inference to non-statistician collaborators, and reason whether or not the current estimator meets these conditions.

Query subject-matter experts, study designers, and others involved in the data generation process in order to

use the data at-hand to formulate a statistical estimation problem that's realistic, reliable, and reproducible;

check assumptions that are required to use this data to answer causal questions (i.e., identifiability);

build a library of machine learning algorithms that is consistent with the process that generated the data;

design improved (potentially hypothetical) studies that would permit answering the relevant scientific question of interest, and evaluate if this ideal experiment is possible/ethical in the real-world; and

translate the final scientific question of interest into a statistical question whose answer can be reliably estimated from the data.

Use R's tiverse software ecosystem to

define a machine learning task that mirrors your estimation problem;

specify the question of interest in terms of a tiverse Spec; and

design simulations that can be used to evaluate the behavior of estimators and their inference, ultimately informing your final choice for estimation.

Rules & Requirements

Prerequisites: STAT 201A-B or instructor's consent. PBHLTH C240A / STAT C245A, PBHLTH 252D or STAT C239A recommended

Repeat rules: Course may be repeated for credit with advisor consent.

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: van der Laan

Targeted Learning: Read Less [-]

PB HLTH 243B Targeted Learning in Practice 2 - 3 Units

Terms offered: Spring 2022, Spring 2004, Spring 2003

This course follows PBHLTH 243A as a two part series. It provides a self-contained introduction to the computational tools for Targeted Learning through it's accompanying software ecosystem, the tlvse. Each class incorporates a concise preliminary lecture, vignette-guided live coding exercises, and discussion. Students will have the opportunity to perform hands-on implementation of novel estimators for answering causal questions with real- world cross-sectional data using the tlvse software ecosystem of R packages.

Targeted Learning in Practice: Read More [\[+\]](#)

Objectives & Outcomes

Course Objectives: Apply standard cross-validation schemes using the origami R package, including V-fold, stratified, ad cluster-specific cross-validation.

Approximate causal effects under stochastic treatment regimes with the tmle3shift R package by defining a single shift, grid of counterfactual shifts, or individual-level shifts of the treatment.

Differentiate stochastic, dynamic, optimal dynamic, and static treatment regimes from each other, and interpret effects under each kind of intervention.

Estimate direct and indirect effects based on decompositions of the total causal effects of static and stochastic interventions with the tmle3mediate R package.

Estimate the effect of a static intervention using the appropriate "Spec", as defined in the tmle3 R package, and apply tmle3's delta method in order to estimate transformations of existing parameters.

Follow the roadmap of statistical learning to define estimation problems in realistic statistical models, and obtain valid inferences.

Obtain and interpret variable importance metrics from the following tlvse R packages: sl3, tmle3, tmle3mopttx, tmle3shift, and tmle3mediate.

Train a super learner using the sl3 R package by selecting an appropriate loss function, metalearner, and assembling a library of candidate machine learning algorithms.

Use the tmle3mopttx R package to learn the optimal individualized treatment regime, and to estimate effects under such data-adaptive regimes.

Rules & Requirements

Prerequisites: PB HLTH 243A

Repeat rules: Course may be repeated for credit with advisor consent.

Hours & Format

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

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructor: van der Laan

Targeted Learning in Practice: Read Less [\[-\]](#)

PB HLTH 243C Information Systems in Public Health 2 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

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.

Information Systems in Public Health: Read More [\[+\]](#)

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

Information Systems in Public Health: Read Less [\[-\]](#)

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

Terms offered: Fall 2018, Fall 2015, Fall 2014

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.

Special Topics in Biostatistics: Adaptive Designs: Read More [\[+\]](#)

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

Special Topics in Biostatistics: Adaptive Designs: Read Less [\[-\]](#)

PB HLTH 244 Big Data: A Public Health Perspective 3 Units

Terms offered: Spring 2022, Fall 2021, Spring 2021

Big Data deluge now engulfs almost every brand of science and business, requiring expertise in combination of statistics and computing.

This course aims to help students develop a set of useful skills to cope with the Big Data challenges, with particular focus on Public Health applications. It covers a wide range of modern statistics and machine learning techniques, as well as state of the art computational tools, and emphasizes statistical modeling and inference (e.g., how to properly formulate a hypothesis and a model, develop intuitive insights and interpretations, and evaluate uncertainty of the outcomes) and covers important computational and algorithmic components (modern computational paradigm of Map-Reduce).

Big Data: A Public Health Perspective: Read More [+]

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: Li

Big Data: A Public Health Perspective: Read Less [-]

PB HLTH 245 Introduction to Multivariate Statistics 4 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

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.

Introduction to Multivariate Statistics: Read More [+]

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

Introduction to Multivariate Statistics: Read Less [-]

PB HLTH 249 Grant Writing 3 Units

Terms offered: Fall 2022, Spring 2004, Spring 2003

The objective of this course is to introduce students to the fundamentals of proposal writing for epidemiologic research. The course will focus primarily on developing an NIH Research Grant (R Series), though we will also discuss other grant mechanisms. In addition, the course will cover the grant submission process and grant review. Students will write a formal proposal focusing on a specific research question of their choice. Emphasis will be placed on development of significant and innovative research aims, critical evaluation of the previous literature and proposing a valid and feasible approach to address their research question.

Grant Writing: Read More [+]

Objectives & Outcomes

Course Objectives: •

Demonstrate critical thinking and communication skills

- Describe principles of grant writing
- Design an epidemiologic study
- Explain about the grant submission and review process

Rules & Requirements

Prerequisites: PBHLTH 250A, PBHLTH 250B & PBHLTH 293:

Epidemiology Doctoral Seminar is recommended. Developing a research topic, writing a 1st draft of your Specific Aims takes time. Accomplishing these tasks, writing a full grant proposal is a tall order for a semester. Recommend that prior to taking this class you take PH 293: Epidemiology Doctoral Seminar, which focuses on developing a research topic & Specific Aims. PH 249 picks up where PH 293 leaves off & requires a strong first draft of your Aims page

Credit Restrictions: Students will receive no credit for PB HLTH 249 after completing PB HLTH 249, or PB HLTH 249. A deficient grade in PB HLTH 249 may be removed by taking PB HLTH 249, or PB HLTH 249.

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: Metayer

Grant Writing: Read Less [-]

PB HLTH 250A Epidemiologic Methods I 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

This course is designed to introduce principles and methods of epidemiology, including types and sources of descriptive epidemiologic data, analytic study designs (intervention trials, cohort, case-control, cross-sectional and ecological), screening, confounding and other types of bias, and causal inference. The course will provide a basic understanding of epidemiology for those pursuing a career in public health.

Epidemiologic Methods I: Read More [+]

Rules & Requirements

Prerequisites: 142 (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: McCoy

Epidemiologic Methods I: Read Less [-]

PB HLTH 250B Epidemiologic Methods II 4 Units

Terms offered: Spring 2022, Fall 2020, Spring 2020

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.

Epidemiologic Methods II: Read More [+]

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)

Epidemiologic Methods II: Read Less [-]

PB HLTH 250C Advanced Epidemiologic Methods 3 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

This course will cover a series of advanced analytical methods for epidemiologic research, drawing heavily on concepts covered in PH 250B. The course consists of a series of modules, including modeling of epidemiological measures of effect, Bayesian methods, instrumental variable analysis, mediation analysis, missing data, sensitivity analysis and methods to address sources of systematic error in epidemiologic research. Hands-on application is emphasized. Class time will consist of lectures, class discussion, student presentations and a weekly practicum.

Advanced Epidemiologic Methods: Read More [+]

Rules & Requirements

Prerequisites: 241, 245, 250B, 252, or consent of instructor

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: Bradshaw

Advanced Epidemiologic Methods: Read Less [-]

PB HLTH N250A Epidemiologic Methods 3 Units

Terms offered: Summer 2022 Second 6 Week Session, Summer 2021 Second 6 Week Session, Summer 1998 10 Week Session

This introductory graduate-level course presents the principles and methods of epidemiology, including descriptive and analytic approaches to assessing the distributions of health, disease, and injury in populations and factors that influence those distributions. The emphasis is on developing an understanding of concepts, rather than quantitative methods, although calculations are involved. Through the combination of lectures, readings, critical review of papers, and problem sets, students without prior coursework in epidemiology will acquire the core competencies in epidemiology expected of all MPH graduates.

Epidemiologic Methods: Read More [+]

Objectives & Outcomes

Course Objectives: Calculate basic epidemiology measures.

Communicate epidemiologic information to lay and professional audiences.

Critically evaluate the strengths and limitations of epidemiologic research publications.

Draw appropriate inferences from epidemiologic data.

Identify key sources of data for epidemiologic purposes

Recognize the important contribution of epidemiology to scientific, ethical, economic and political discussion of health issues.

Understand basic ethical principles pertaining to epidemiologic studies.

Understand public health problems in epidemiologic terms .

Use the basic terminology and definitions of epidemiology.

Rules & Requirements

Prerequisites: There are no prerequisites, although it is advantageous to have taken or be concurrently taking an introductory course in biostatistics (e.g., PH 141 or PH 142)

Credit Restrictions: Students will receive no credit for PB HLTH N250A after completing PB HLTH 250A, PB HLTH W250, or PB HLTH N250A. A deficient grade in PB HLTH N250A may be removed by taking PB HLTH 250A, PB HLTH W250, or PB HLTH N250A.

Hours & Format

Summer: 6 weeks - 8 hours of lecture and 4 hours of discussion per week

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructor: Mujahid

Epidemiologic Methods: Read Less [-]

PB HLTH W250 Epidemiologic Methods I 3 Units

Terms offered: Fall 2022, Spring 2022, Fall 2021

This introductory graduate course presents principles & methods of epidemiology, including descriptive & analytic approaches to assessing the distributions of health, disease & injury in the population & factors influencing those distributions. Emphasis is on developing an understanding of concepts, rather than quantitative methods. Basic calculations are involved. Course consists of readings, critical review of epidemiology papers, brief video lectures to explain key concepts, quizzes & exams that allow students to practice applying epidemiological concepts. Students without prior coursework in epidemiology will acquire the core competencies in epidemiology expected of all MPH graduates. Course shares the same content & learning of PH 250A

Epidemiologic Methods I: Read More [+]

Objectives & Outcomes

Course Objectives: Calculate basic epidemiology measures.
Communicate epidemiologic information to lay and professional audiences.
Critically evaluate the strengths and limitations of epidemiologic research publications.
Draw appropriate inferences from epidemiologic data.
Identify key sources of data for epidemiologic purposes.
Recognize the important contribution of epidemiology to scientific and ethical discussion of health issues.
Understand basic ethical principles pertaining to epidemiologic studies.
Understand public health problems in epidemiologic terms.
Use the basic terminology and definitions of epidemiology.

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
15 weeks - 3 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: McCoy

Epidemiologic Methods I: Read Less [-]

PB HLTH W250B Epidemiologic Methods II 4 Units

Terms offered: Fall 2022, Fall 2021, Spring 2021

This course is an intermediate level course in epidemiology. It replaces previously approved and delivered courses PHW250F and PHW250G. Topics include causal inference; measurement of disease rates; inferential reasoning; research study designs, ecologic, case-control, cohort, intervention trials, meta-analytic designs; potential sources of bias, confounding, effect modification in research design are explored in depth; topics in clinical epidemiology, likelihood ratios, receiver operator curves, the sensitivity, specificity, predictive value of a test; brief introduction to logistic regression and survival analysis. Topics are covered at a advanced level than PH250A or PHW250. Readings from this course provide a firm foundation for PH250C.

Epidemiologic Methods II: Read More [+]

Objectives & Outcomes

Student Learning Outcomes: •

- Apply causal frameworks to the assessment of causality in associations
-
- Assess the extent of bias in studies and calculate bias-corrected measures
-
- Calculate and interpret measures of disease and association.
-
- Define the major study designs, including their strengths and weaknesses, and demonstrate their appropriate applications
-
- Define, calculate and interpret effect measure modification on different scales
-
- Define, calculate and interpret power, sample size, confidence intervals and p-values.
-
- Explain sources of bias in studies
-
- Explain the purposes, mechanics and limitations of matching in study designs
-
- Identify and apply appropriate analytic techniques for study questions, and interpret coefficients and other quantities estimated using these techniques.
-
- Identify appropriate applications of measures of disease and association.
-
- Identify design and analysis approaches to reduce bias in studies
-
- State the purposes of screening, and calculate and interpret screening measures.
- Explain the purposes and process of systematic review and meta-analysis.

Rules & Requirements

Prerequisites: PBHLTH 150A, PBHLTH 250A or PBHLTH W250

Hours & Format

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

Online: This is an online course.

Additional Details

PB HLTH W250F Epidemiologic Methods II: Part 1 3 Units

Terms offered: Fall 2019, Fall 2018

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. These topics are covered at a more advanced level than in PH250A or PHW250. The readings from this course are drawn primarily from advanced epidemiology textbooks (e.g., Kleinbaum, Rothman). The course is intended to provide a firm foundation for students who will later enroll in 250C.

Epidemiologic Methods II: Part 1: [Read More](#) [+]

Rules & Requirements

Prerequisites: PB HLTH 150A, PB HLTH 250A, or PB HLTH W250

Hours & Format

Fall and/or spring: 8 weeks - 6 hours of web-based lecture per week

Summer: 8 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.

Instructors: COLFORD, BENJAMIN-CHUNG

Epidemiologic Methods II: Part 1: [Read Less](#) [-]

PB HLTH W250G Epidemiologic Methods II: Part 2 3 Units

Terms offered: Fall 2019, Fall 2018

This course is intended as an intermediate level course in the field of epidemiology. Topics include 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 and survival analysis. These topics are covered at a more advanced level than in PH250A or PHW250. The readings from this course are drawn primarily from advanced epidemiology textbooks (e.g., Kleinbaum, Rothman). The course is intended to provide a firm foundation for students who will later enroll in 250C.

Epidemiologic Methods II: Part 2: [Read More](#) [+]

Rules & Requirements

Prerequisites: PB HLTH 150A, PB HLTH 250A, or PB HLTH W250

Hours & Format

Fall and/or spring: 8 weeks - 6 hours of web-based lecture per week

Summer: 8 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.

Instructors: Colford, Benjamin-Chung

Epidemiologic Methods II: Part 2: [Read Less](#) [-]

PB HLTH 251C Causal Inference and Meta-Analysis in Epidemiology 2 Units

Terms offered: Fall 2017, Fall 2016, Fall 2015

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.

Causal Inference and Meta-Analysis in Epidemiology: Read More [+]

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

Causal Inference and Meta-Analysis in Epidemiology: Read Less [-]

PB HLTH 251D Applied Epidemiology Using R 2 Units

Terms offered: Fall 2019, Fall 2018, Fall 2017

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.

Applied Epidemiology Using R: Read More [+]

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

Applied Epidemiology Using R: Read Less [-]

PB HLTH W251 R for Public Health 2 Units

Terms offered: Fall 2022, Fall 2021

The course examines principles & methods underlying the use of R, emphasizing multi-disciplinary, collaborative, & real world uses. We will emphasize practices for collaborative coding using Git/GitHub repositories for storing & sharing code to benefit not only your current collaborators but your most frequent collaborator. We will introduce best practices for organizing data & projects, how to create reproducible examples (a.k.a. repret) for when you get stuck and need to ask the R community for help (but can't share a full dataset because it's too large or contains confidential information). Application of principles will be taught through scenarios that public health practitioners encounter.

R for Public Health: Read More [+]

Objectives & Outcomes

Course Objectives:

Effectively engage with public health practitioners in the use of R to address current public health and/or policy issues;

Apply knowledge of R to support ongoing analytic work in epidemiology and biostatistics;

Create meaningful visualizations of data and have a basic understanding of tools available through R to present data (including R markdown, R Shiny)

Develop strategies for addressing issues that arise when combining data from multiple, complex data sources;

Identify best practices for project management, programming, and version control when contributing data to evaluate and/or support effective public health interventions;

Leverage existing open-source resources for continued learning and problem solving.

Select appropriate methods for importing, cleaning, and analyzing data within R;

Hours & Format

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

Online: This is an online course.

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructor: Wheeler

R for Public Health: Read Less [-]

PB HLTH W251B Data Visualization for Public Health 2 Units

Terms offered: Fall 2022

In this course we will discuss the theory behind effective graphical design, how to apply this theory to communicating health data to different audiences, and how to produce a variety of graphical types using primarily the ggplot command in the statistical analysis program R. There are two lectures per week accompanied by readings. Generally, the course content and assignments alternate weekly between theory and R programming.

Data Visualization for Public Health: Read More [+]

Objectives & Outcomes

Course Objectives: •

Apply color theory and accessibility principles to reach the widest audience.

-

Create a data dashboard using REDCap or Tableau.

-

Create graphics for print and digital media.

-

Effectively communicate your messages, both graphically and verbally.

-

Leverage existing graphical applications, including mapping/census data

-

Produce different styles of graphics using R.

-

Understand the theory behind good graphical design for presenting health data.

Hours & Format

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

Online: This is an online course.

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructor: Mocello

Data Visualization for Public Health: Read Less [-]

PB HLTH 252 Epidemiological Analysis 4 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

This 4-unit course will cover modern quantitative methods relevant to epidemiologic research drawing heavily on concepts covered in PB HLTH 250B. Course topics include generalized linear models, Kaplan-Meier estimation, survival distributions, and models for parametric and semi-parametric survival analysis. We will also cover methods for confounder selection, dose-response modeling, and interaction and effect modification.

Epidemiological Analysis: Read More [+]

Objectives & Outcomes

Course Objectives: Apply the appropriate statistical model to estimate epidemiologic effects of interest

Articulate necessary assumptions for different methods, and accurately interpret results

Identify measures of association that can be estimated under various study designs

d.

Understand analyses presented in epidemiologic literature, and evaluate their soundness

e.

Follow future developments in epidemiologic research

Rules & Requirements

Prerequisites: PB HLTH 250B, PB HLTH 241, 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: Bradshaw

Epidemiological Analysis: Read Less [-]

PB HLTH 252B Infectious Disease Modeling 2 - 4 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

This course will lead students through the process of designing mathematical models of infectious diseases, fitting these models to data, and using them as public health tools to design effective control strategies. Examples are drawn from COVID-19, HIV, influenza, Ebola, and mosquito-borne diseases such as malaria and Zika virus. Each class consists of a lecture followed by a computer-based activity to apply the material. Students also work on a project in which they design their own model and use it to answer a specific research question.

Infectious Disease Modeling: Read More [+]

Objectives & Outcomes

Course Objectives: 1.

Design compartmental models of infectious diseases,

2.

Understand the role of heterogeneity, especially in sexually-transmitted infectious,

3.

Understand the importance of stochasticity in outbreak modeling,

4.

Estimate parameters, such as the basic reproductive number, R_0 , from epidemiological data,

5.

Fit mathematical models to incidence and prevalence data,

6.

Incorporate interventions into infectious disease models.

Rules & Requirements

Prerequisites: Students should be able to write and interpret ordinary differential equations, and to manipulate beginner-level code in R

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.

Instructor: Marshall

Infectious Disease Modeling: Read Less [-]

PB HLTH 252C Intervention Trial Design 2 Units

Terms offered: Fall 2022, Spring 2022, Fall 2020

Students learn through pre-recorded lectures. There are graded student presentations of final course project to interpret and design clinical and population-level field trials in addition to a written midterm. Topics: formulation of a testable trial hypothesis; identification of appropriate study populations; blinding (including indices for assessment); randomization (including traditional and adaptive); sample size estimation; recruitment strategies; data collection systems; quality control and human subjects responsibilities; adverse effects monitoring; improving participant adherence; use of surrogate outcomes; preparation of a meta-analysis summarizing a group of trials.

Intervention Trial Design: Read More [+]

Objectives & Outcomes

Student Learning Outcomes: 3) identify whether appropriate steps have been taken to provide transparency in a published Trial;

4) be able to design a basic Intervention Trial in the student's area of interest;

5) prepare a summary meta-analysis for a group of published Trials published on one topic of interest to the student.

: 2) understand and apply basic principles to determine an appropriate sample size for a Trial;

At the completion of the course, students will be able to: 1) critique published Intervention Trials with respect to design and potential sources of bias:

Rules & Requirements

Prerequisites: PBHLTH 250A or equivalent introductory Epidemiology course

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: Colford

Intervention Trial Design: Read Less [-]

PB HLTH 252D Introduction to Causal Inference 4 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

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.

Introduction to Causal Inference: [Read More](#) [+]

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 - 2-2 hours of lecture, 0-2 hours of discussion, and 2-0 hours of laboratory per week

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructor: Petersen

Introduction to Causal Inference: [Read Less](#) [-]

PB HLTH 252E Advanced Topics in Causal Inference 4 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

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.

Advanced Topics in Causal Inference: [Read More](#) [+]

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

Advanced Topics in Causal Inference: [Read Less](#) [-]

PB HLTH W252 Epidemiologic Analysis 4 Units

Terms offered: Fall 2022

This 4-unit course will cover modern quantitative methods relevant to epidemiologic research drawing heavily on concepts covered in PB HLTH 250B. Course topics include generalized linear models, Kaplan-Meier estimation, survival distributions, and models for parametric and semi-parametric survival analysis. We will also cover methods for confounder selection, dose-response modeling, and interaction and effect modification.

Epidemiologic Analysis: [Read More](#) [+]

Objectives & Outcomes

Course Objectives: Apply the appropriate statistical model to estimate epidemiologic effects of interest.

Articulate necessary assumptions for different methods, and accurately interpret results.

a.

Identify measures of association that can be estimated under various study designs.

d.

Understand analyses presented in epidemiologic literature, and evaluate their soundness.

e.

Follow future developments in epidemiologic research.

Rules & Requirements

Prerequisites: PB HLTH 250B, PB HLTH 241, or consent of instructor

Credit Restrictions: Students will receive no credit for PB HLTH W252 after completing PB HLTH 252. A deficient grade in PB HLTH W252 may be removed by taking PB HLTH 252.

Hours & Format

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

Online: This is an online course.

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructor: Bradshaw

Epidemiologic Analysis: [Read Less](#) [-]

PB HLTH 253B Epidemiology and Control of Infectious Diseases 3 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

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.

Epidemiology and Control of Infectious Diseases: [Read More](#) [+]

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

Epidemiology and Control of Infectious Diseases: [Read Less](#) [-]

PB HLTH 253D Behavior and Policy Science in HIV Treatment and Prevention 3 Units

Terms offered: Spring 2016, Spring 2015, Spring 2014

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.

Behavior and Policy Science in HIV Treatment and Prevention: [Read More](#) [+]

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

Behavior and Policy Science in HIV Treatment and Prevention: [Read Less](#) [-]

PB HLTH 253E Ethical Challenges in Public Health Interventions: Catastrophic and Routine 2 Units

Terms offered: Spring 2015, Spring 2014, Spring 2013

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.

Ethical Challenges in Public Health Interventions: Catastrophic and Routine: [Read More](#) [+]

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

Ethical Challenges in Public Health Interventions: Catastrophic and Routine: [Read Less](#) [-]

PB HLTH 253G Sexual Health Promotion and Sexually Transmitted Disease Control 2 Units

Terms offered: Spring 2018, Spring 2017, Spring 2016

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.

Sexual Health Promotion and Sexually Transmitted Disease Control: [Read More](#) [+]

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

Sexual Health Promotion and Sexually Transmitted Disease Control: [Read Less](#) [-]

PB HLTH W253 Outbreak Investigations 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

The purpose of this course is to provide students with an overview of outbreak investigations in public health. This course will teach students why and how clusters of illnesses/epidemics are investigated. Methods and approaches required for such investigations will be discussed in detail, using published and unpublished material from the scientific literature.

Outbreak Investigations: [Read More](#) [+]

Rules & Requirements

Prerequisites: Students must be matriculated in the On-campus Online MPH Program in order to enroll in this course

Repeat rules: Course may be repeated for credit with instructor consent.

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.

Instructors: Reingold, Enanoria

Outbreak Investigations: [Read Less](#) [-]

PB HLTH 254 Occupational and Environmental Epidemiology 3 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

Epidemiological methods for designing, conducting, and interpreting epidemiological studies of persons occupationally or environmentally exposed to chemical and physical agents.

Occupational and Environmental Epidemiology: [Read More](#) [+]

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

Occupational and Environmental Epidemiology: [Read Less](#) [-]

PB HLTH 255A Social Epidemiology 4 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

This is a breadth course intended to provide an overview of the field of social epidemiology and its role in understanding the social determinants of population health and health disparities. Given the breadth of social epidemiology, 255A provides a systematic and selective overview of literature covering the history and development of the field, theoretical perspectives and conceptual approaches, major topical areas and current controversies related to theory, research methods and research findings. Principles emphasized throughout the course (ecological model, measurement and causality) will provide a framework for critical analysis and synthesis across content areas. This is not a methods course.

Social Epidemiology: [Read More](#) [+]

Rules & Requirements

Prerequisites: Consent of instructor. 142, 145, and 250A-250B recommended

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: Nuru-Jeter

Social Epidemiology: [Read Less](#) [-]

PB HLTH 255C Mental Health and Psychopathology 3 Units

Terms offered: Spring 2021, Spring 2019, Fall 2013

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.

Mental Health and Psychopathology: Read More [+]

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

Mental Health and Psychopathology: Read Less [-]

PB HLTH 255D Methods in Social Epidemiology 2 Units

Terms offered: Fall 2022, Spring 2022, Spring 2020

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.

Methods in Social Epidemiology: Read More [+]

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

Methods in Social Epidemiology: Read Less [-]

PB HLTH 255E Structural Inequalities and Reproductive Health 2 Units

Terms offered: Spring 2015, Spring 2012, Spring 2011

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.

Structural Inequalities and Reproductive Health: Read More [+]

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

Structural Inequalities and Reproductive Health: Read Less [-]

PB HLTH 256 Human Genome, Environment and Public Health 4 Units

Terms offered: Spring 2019, Spring 2018, Spring 2016

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.

Human Genome, Environment and Public Health: Read More [\[+\]](#)

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 2 hours of laboratory per week

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructors: Barcellos, Holland

Human Genome, Environment and Public Health: Read Less [\[-\]](#)

PB HLTH C256 Human Genome, Environment and Public Health 4 Units

Terms offered: Fall 2020, Spring 2019, Spring 2018

This introductory course will cover basic principles of human/population genetics and molecular biology relevant to molecular and genetic epidemiology. The latest methods for genome-wide association studies and other approaches to identify genetic variants and environmental risk factors important to disease and health will be presented. The application of biomarkers to define exposures and outcomes will be explored. Recent developments in genomics, epigenomics and other 'omics' will be included. Computer and wet laboratory work will provide hands-on experience.

Human Genome, Environment and Public Health: Read More [\[+\]](#)

Rules & Requirements

Prerequisites: Introductory level biology/genetics course, or consent of instructor. Introductory biostatistics and epidemiology courses strongly recommended

Credit Restrictions: Students who complete PB HLTH 256 receive no credit for completing PH C256.

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: Barcellos, Holland

Also listed as: CMPBIO C256

Human Genome, Environment and Public Health: Read Less [\[-\]](#)

PB HLTH C256A Human Genome, Environment and Human Health 3 Units

Terms offered: Spring 2017

This introductory course will cover basic principles of human/population genetics and molecular biology relevant to understanding how data from the human genome are being used to study disease and other health outcomes. The latest designs and methods for genome-wide association studies and other approaches to identify genetic variants, environmental risk factors and the combined effects of gene and environment important to disease and health will be presented. The application of biomarkers to define exposures and outcomes will be explored. The course will cover recent developments in genomics, epigenomics and other 'omics', including applications of the latest sequencing technology and characterization of the human microbiome.

Human Genome, Environment and Human Health: Read More [\[+\]](#)

Rules & Requirements

Prerequisites: Introductory level biology course. Completion of introductory biostatistics and epidemiology courses strongly recommended and 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.

Instructors: Barcellos, Holland

Also listed as: CMPBIO C256A

Human Genome, Environment and Human Health: Read Less [\[-\]](#)

PB HLTH C256B Genetic Analysis Method 3 Units

Terms offered: Prior to 2007

This introductory course will provide hands-on experience with modern wet laboratory techniques and computer analysis tools for studies in molecular and genetic epidemiology and other areas of genomics in human health. Students will also participate in critical review of journal articles. Students are expected to understand basic principles of human/population genetics and molecular biology, latest designs and methods for genome-wide association studies and other approaches to identify genetic variants, environmental risk factors and the combined effects of gene and environment important to human health. Students will learn how to perform DNA extraction, polymerase chain reaction and methods for genotyping, sequencing, and cytogenetics.

Genetic Analysis Method: Read More [\[+\]](#)

Rules & Requirements

Prerequisites: Introductory level biology course. Completion of introductory biostatistics and epidemiology courses strongly recommended and may be taken concurrently with permission. PH256A is a requirement for PH256B; they can be taken concurrently

Hours & Format

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

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructors: Barcellos, Holland

Also listed as: CMPBIO C256B

Genetic Analysis Method: Read Less [\[-\]](#)

PB HLTH 257 Outbreak Investigation 2 Units

Terms offered: Fall 2022, Spring 2022, Fall 2021

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.

Outbreak Investigation: Read More [\[+\]](#)

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

Outbreak Investigation: Read Less [\[-\]](#)

PB HLTH W257 Public Health Preparedness and Emergency Response 3 Units

Terms offered: Summer 2022 First 6 Week Session, Summer 2021 First 6 Week Session, Summer 2020 First 6 Week Session

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.

Public Health Preparedness and Emergency Response: Read More [+]

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

Summer: 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

Public Health Preparedness and Emergency Response: Read Less [-]

PB HLTH 258 Cancer Epidemiology 3 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

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.

Cancer Epidemiology: Read More [+]

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

Cancer Epidemiology: Read Less [-]

PB HLTH W258 Global Health Disaster Preparedness and Response 3 Units

Terms offered: Prior to 2007

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.

Global Health Disaster Preparedness and Response: Read More [+]

Rules & Requirements

Repeat rules: Course may be repeated for credit under special circumstances: 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

Global Health Disaster Preparedness and Response: Read Less [-]

PB HLTH 259B Practical Applications of Epidemiologic Methods in Developing Countries 3 Units

Terms offered: Spring 2018, Spring 2012, Spring 2011

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.

Practical Applications of Epidemiologic Methods in Developing Countries: Read More [+]

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

Practical Applications of Epidemiologic Methods in Developing Countries: Read Less [-]

PB HLTH 260A Principles of Infectious Diseases 4 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

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.

Principles of Infectious Diseases: Read More [a+]

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

Principles of Infectious Diseases: Read Less [-]

PB HLTH 260B Principles of Infectious Diseases 4 Units

Terms offered: Spring 2021, Fall 2020, Spring 2020

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.

Principles of Infectious Diseases: Read More [a+]

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.

Instructor: Swartzberg

Principles of Infectious Diseases: Read Less [-]

PB HLTH 260C Infectious Disease Laboratory 2 or 4 Units

Terms offered: Spring 2017, Spring 2016, Spring 2015

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.

Infectious Disease Laboratory: Read More [a+]

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

Infectious Disease Laboratory: Read Less [-]

PB HLTH 260E Molecular Epidemiology of Infectious Diseases 2 - 3 Units

Terms offered: Fall 2022, Fall 2020, Fall 2018

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 pathovars from non-pathogenic variants of organisms, doing surveillance, and identifying genetic determinants of disease transmissions. 3-units if a five-page paper completed.

Molecular Epidemiology of Infectious Diseases: Read More [a+]

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

Molecular Epidemiology of Infectious Diseases: Read Less [-]

PB HLTH 260F Infectious Disease Research in Developing Countries 2 Units

Terms offered: Fall 2021, Spring 2021, Spring 2019

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. Infectious Disease Research in Developing Countries: Read More [+]

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

Infectious Disease Research in Developing Countries: Read Less [-]

PB HLTH W260 Infectious Diseases 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

The purpose of this course is to provide students with knowledge and approach to understand key principles that apply to infectious diseases recognized to be of major public health importance in the USA and globally. The students will learn about the important infectious disease issues and obstacles that arise at the population level, and how to address them through science, public health practices, and policy.

Infectious Diseases: Read More [+]

Objectives & Outcomes

Student Learning Outcomes: 1.

understand definitions used in discussing, describing, and reporting about infectious diseases.

2.

understand US and WHO-recommended immunization practices and policies, as well as common obstacles to their universal implementation.

3.

propose new ideas about how to address obstacles related to immunization policies; challenges in developing new vaccines.

4.

know about the major drug-resistant infectious disease problems in the US and abroad; factors that select for drug resistance, and what needs to be done to prevent and control the spread of drug-resistant infections.

5.

describe hospital infection surveillance systems; hospital infection control stewardship principles.

6.

understand the rationale behind screening tests for HIAIDs and other STIs.

7.

describe approaches to hepatitis screening, blood donation and blood bank screening for hepatitis viruses; differences in TB contact tracing programs in the US and elsewhere; BCG vaccination vs preventive treatment for latent TB infection in the USA.

Rules & Requirements

Prerequisites: Students must be matriculated in the On-campus Online MPH Program to enroll in this course

Repeat rules: Course may be repeated for credit with instructor consent.

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.

Instructors: Riley, Swartzberg

Infectious Diseases: Read Less [-]

PB HLTH 261 Advanced Medical Virology 3 - 4 Units

Terms offered: Fall 2018, Spring 2015, Spring 2013

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.

Advanced Medical Virology: Read More [+]

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

Advanced Medical Virology: Read Less [-]

PB HLTH 262 Molecular and Cellular Basis of Bacterial Pathogenesis 3 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

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.

Molecular and Cellular Basis of Bacterial Pathogenesis: Read More [+]

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

Molecular and Cellular Basis of Bacterial Pathogenesis: Read Less [-]

PB HLTH 263 Public Health Immunology 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

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.

Public Health Immunology: Read More [+]

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

Public Health Immunology: Read Less [-]

PB HLTH 264 Capstone Seminar in Infectious Diseases and Vaccinology 2 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

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.

Capstone Seminar in Infectious Diseases and Vaccinology: Read More [\[+\]](#)

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: Liu

Formerly known as: 264A-264B

Capstone Seminar in Infectious Diseases and Vaccinology: Read Less [\[-\]](#)

PB HLTH 265 Molecular Parasitology 3 Units

Terms offered: Fall 2021, Fall 2019, Fall 2017

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.

Molecular Parasitology: Read More [\[+\]](#)

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 without restriction.

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

Molecular Parasitology: Read Less [\[-\]](#)

PB HLTH 266 Viruses and Human Cancer 2 - 3 Units

Terms offered: Spring 2016, Spring 2014, Spring 2013

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.

Viruses and Human Cancer: Read More [\[+\]](#)

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

Viruses and Human Cancer: Read Less [\[-\]](#)

PB HLTH 266A Foodborne diseases 2 Units

Terms offered: Spring 2019, Fall 2016, Fall 2015

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.

Foodborne diseases: Read More [+]

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

Foodborne diseases: Read Less [-]

PB HLTH 266B Zoonotic Diseases 2 Units

Terms offered: Fall 2021, Spring 2021, Fall 2020

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.

Zoonotic Diseases: Read More [+]

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

Zoonotic Diseases: Read Less [-]

PB HLTH 266C Hospital Associated Infections 2 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

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. Hospital Associated Infections: Read More [\[+\]](#)

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

Hospital Associated Infections: Read Less [\[-\]](#)

PB HLTH 267B Characterization of Airborne Contaminants 4 Units

Terms offered: Spring 2021, Spring 2019, Spring 2017

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. Characterization of Airborne Contaminants: Read More [\[+\]](#)

Characterization of Airborne Contaminants: Read More [\[+\]](#)

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

Characterization of Airborne Contaminants: Read Less [\[-\]](#)

PB HLTH W268 Water, Sanitation and Hygiene (WaSH) for Health and Development 3 Units

Terms offered: Summer 2022 Second 6 Week Session

This course is designed for students who may be interested in working in countries where contaminated water, inadequate sanitation and poor hygiene (WaSH) are the cause of serious health problems. In this course, important concepts in WaSH will be covered so that students can understand what is needed to develop, implement, monitor and evaluate a WaSH program. It emphasizes concepts that are needed to develop effective, appropriate, accessible and affordable WaSH interventions to reduce the global burden of disease.

Water, Sanitation and Hygiene (WaSH) for Health and Development: Read More [\[+\]](#)

Objectives & Outcomes

Course Objectives: 1.

Identify major water, sanitation and hygiene hazards and understand how hazards differ between different countries, watersheds, climates, cultures and regions.

2.

Describe key social determinants of health that drive WaSH inequities

3.

Understand the primary WaSH interventions that have been shown to be effective at reducing morbidity and mortality

4.

Conduct vulnerability assessments of community supplies of water and sanitation systems to assess ability to provide essential services.

5.

Describe the relationship between WaSH technologies, behavioral change communications and the enabling environment and how the three must work in tandem to result in sustained improvements.

6.

Critically analyze WaSH-related issues associated with rapid growth of urban populations in developing countries.

Hours & Format

Summer: 7 weeks - 5.5 hours of lecture per week

Online: This is an online course.

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructors: Graham, Jain

Water, Sanitation and Hygiene (WaSH) for Health and Development: Read Less [\[-\]](#)

PB HLTH 269D Ergonomics Seminar 2 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

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.

Ergonomics Seminar: Read More [+]

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

Ergonomics Seminar: Read Less [-]

PB HLTH 269E Current Topics in Environmental Medicine 2 - 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

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.

Current Topics in Environmental Medicine: Read More [+]

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

Current Topics in Environmental Medicine: Read Less [-]

PB HLTH W269A Introduction to Physical Ergonomics 3 Units

Terms offered: Fall 2017

Students will identify the components of occupational tasks that contribute to musculoskeletal injury, quantify the risks using the most relevant ergonomic assessment tools, and integrate that information into conclusions regarding the acceptability of the risk. This course will challenge students to assess many practical examples from a wide variety of workplace sectors, including manufacturing, health care, agriculture and others, and interpret data from sources that will not always agree, so that the decisions can be made and defended.

Introduction to Physical Ergonomics: Read More [+]

Hours & Format

Fall and/or spring: 7 weeks - 8-5 hours of web-based lecture per week

Online: This is an online course.

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructors: Harris Adamson, Potvin, Janowitz

Introduction to Physical Ergonomics: Read Less [-]

PB HLTH 270 Introduction to Environmental Health Sciences 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

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.

Introduction to Environmental Health Sciences: Read More [+]

Rules & Requirements

Prerequisites: One epidemiology course; one biostatistics course (may be taken concurrently). One Epidemiology course; one Biostatistics course, can be concurrent. (recently)

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

Introduction to Environmental Health Sciences: Read Less [-]

PB HLTH 270A Exposure Assessment and Control 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

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.

Exposure Assessment and Control: Read More [+]

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

Exposure Assessment and Control: Read Less [-]

PB HLTH 270B Toxicology I 3 Units

Terms offered: Spring 2018, Fall 2016, Fall 2015

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.

Toxicology I: Read More [+]

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

Toxicology I: Read Less [-]

PB HLTH 270C Practical Toxicology 2 Units

Terms offered: Spring 2019, Spring 2017, Spring 2016

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.

Practical Toxicology: Read More [+]

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

Practical Toxicology: Read Less [-]

PB HLTH 271C Drinking Water and Health 3 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

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.

Drinking Water and Health: Read More [+]

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

Drinking Water and Health: Read Less [-]

PB HLTH 271D Global Burden of Disease and Comparative Risk Assessment 3 Units

Terms offered: Spring 2016, Spring 2015, Spring 2013

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.

Global Burden of Disease and Comparative Risk Assessment: Read More [+]

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

Global Burden of Disease and Comparative Risk Assessment: Read Less [-]

PB HLTH 271E Science and Policy for Environment and Health 3 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

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.

Science and Policy for Environment and Health: Read More [+]

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

Science and Policy for Environment and Health: Read Less [-]

PB HLTH 271G Health Implications of Climate Change 3 Units

Terms offered: Spring 2022, Fall 2021, Spring 2021

This course explores the Public Health effects of global climate change: physical basis of climate change, including causes & projections; burden of disease stemming from global climate change, emphasis on impacts in the developing world, global & local equity issues, interaction between climate change mitigation/adaptation activities & existing global health initiatives; direct exposures (extreme heat, drought, precipitation, sea-level rise), indirect exposures (vector-borne & zoonotic diseases, ecosystem disruption, water quantity & quality, land arability & food production, population displacement). After taking this course, students will be well positioned for further work on global environmental change and health.

Health Implications of Climate Change: Read More [+]

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: Remais

Health Implications of Climate Change: Read Less [-]

PB HLTH 271H Greener Solutions: A Safer Design Partnership 3 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

Green chemistry seeks to promote the design and adoption of safer chemicals and materials. The development and adoption of safer chemicals and materials depends on solving a number of design and selection challenges. The Greener Solutions course pairs interdisciplinary teams of 3-5 graduate students with a partner organization seeking to solve these challenges in a specific application. This 3-unit interdisciplinary, project-based course is intended for graduate students in public health, chemistry, environmental studies, and engineering. The course draws on students' disciplinary expertise and teaches new skills to identify safer alternatives to hazardous chemicals currently used in a product or manufacturing process.

Greener Solutions: A Safer Design Partnership: Read More [+]

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.

Instructors: Schwarzman, Hart-Cooper

Greener Solutions: A Safer Design Partnership: Read Less [-]

PB HLTH 271J Social Justice and Worker Health 2 Units

Terms offered: Fall 2022

Course is an overview on work as a key social determinant of health. The workplace is commonly viewed as a setting for health promotion of individual behavior change, while its potential to be a source of critical exposures that directly impact health, safety & well-being of working populations is often overlooked. Purpose of the class is to help public health practitioners build a framework for understanding the role that work & workplace conditions play in individual & community health, to introduce strategies that address work-related health inequities & facilitate the development of concrete skills in these areas. The course emphasizes worker & community organization & participation in effecting social justice & public health change.

Social Justice and Worker Health: Read More [+]

Objectives & Outcomes

Student Learning Outcomes: Define the concept of a healthy job, and describe work as a social determinant of health with an emphasis on its impact on the lives of low-wage, immigrant, and other vulnerable workers and communities.

Describe the "landscape" of work and labor dynamics, including current issues and topics in worker health and safety and the populations most affected by workplace hazards and risks.

Discuss basic theoretical and experiential concepts underlying the following public health strategies:

#

Community organizing

#

Labor organizing

#

Training for action

#

Effective partnerships

#

Work-related policies

Practice skills in community organizing, popular education, training for action, and building effective partnerships that are all essential to professional community-based practice in public health.

Rules & Requirements

Repeat rules: Course may be repeated for credit with advisor consent.

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.

Instructors: Teran, Chang

Social Justice and Worker Health: Read Less [-]

PB HLTH 271K Introduction to Data Management and Programming in SAS for Public Health 2 Units

Terms offered: Spring 2022

This class is an introduction to the use of the SAS programming language for managing, cleaning and analyzing biomedical data.

Introduction to Data Management and Programming in SAS for Public Health: Read More [+]

Objectives & Outcomes

Course Objectives: By the end of this course, students should be able to write SAS programs for data management, cleaning, and analysis

Student Learning Outcomes: Create and run SAS programs

#

Create new variables from other data.

#

Export SAS datasets

#

Manipulate and transform data

#

Read raw input files in various formats and create SAS datasets.

#

Use SAS procedures for basic statistical inference: Chi-square tests, T-Tests, Correlations, Linear Regression, etc.

#

Use basic SAS procedures to describe data numerically and graphically.

#

Work with SAS datasets: sort, subset, merge, and re-format SAS datasets

Rules & Requirements

Prerequisites: It is expected that students will have taken introductory courses to both biostatistics and epidemiology (PBHLTH 142 or PBHLTH W142; PBHLTH W250A, PBHLTH 250B or PBHLTH W250, PBLTH W250F/G)

Hours & Format

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

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructor: Costello

Introduction to Data Management and Programming in SAS for Public Health: Read Less [-]

PB HLTH C271G Health Implications of Climate Change 3 Units

Terms offered: Spring 2020, Spring 2019, Spring 2018, Spring 2017, Spring 2016, Spring 2015

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.

Health Implications of Climate Change: [Read More](#) [+]

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

Health Implications of Climate Change: [Read Less](#) [-]

PB HLTH 272A Geographic Information Science for Public and Environmental Health 4 Units

Terms offered: Spring 2016, Spring 2015, Spring 2014

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. Geographic Information Science for Public and Environmental Health: [Read More](#) [+]

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

Geographic Information Science for Public and Environmental Health: [Read Less](#) [-]

PB HLTH 272B Case Studies in Environmental and Occupational Epidemiology 2 Units

Terms offered: Fall 2016, Fall 2015, Fall 2014

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.

Case Studies in Environmental and Occupational Epidemiology: Read More [+]

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

Case Studies in Environmental and Occupational Epidemiology: Read Less [-]

PB HLTH W272A Introduction to Geographic Information Systems for Public Health 3 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

This course introduces geographic information systems (GIS) for the processing, visualization and description of spatial public health data. We will introduce principles, methods, and techniques for acquiring, processing, and manipulating spatial data. We will cover basic GIS concepts, such as coordinate systems and cartography, layering, buffering, joining spatial data, and conducting spatial queries. The role of locational information in aiding in the prevention of disease will be covered and discussed.

Introduction to Geographic Information Systems for Public Health: Read More [+]

Hours & Format

Fall and/or spring: 8 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.

Instructors: Casey, Midekisa

Introduction to Geographic Information Systems for Public Health: Read Less [-]

PB HLTH W272C Applied Spatial Data Science for Public Health 3 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

This course will cover the theory and methods behind the analysis of patterns of health and disease in space. Students will increase their proficiency in the application of Geographic Information Systems (GIS) to public health data, and will learn how to perform a wide variety of space and space-time analyses. The course will introduce statistical techniques for describing, analyzing and interpreting layers of mapped health data, including the acquisition and classification of remote sensing data.

Applied Spatial Data Science for Public Health: Read More [+]

Hours & Format

Fall and/or spring: 8 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.

Instructors: Casey, Midekisa, Sturrock

Applied Spatial Data Science for Public Health: Read Less [-]

PB HLTH 273 Environmental Determinants of Infectious Disease 3 Units

Terms offered: Fall 2020, Fall 2019, Fall 2018

The course takes a global perspective, examining the environmental phenomena that influence the transmission of infectious diseases. The epidemiological significance of environmental processes are explored, including weather, climate extremes, hydrology, development projects, and land usage change. Analytical tools are discussed and critiqued with respect to their ability to resolve the role of environmental factors in shaping disease distributions and pathogen fate, transport, and persistence.

Environmental Determinants of Infectious Disease: Read More [+]

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: Remais

Environmental Determinants of Infectious Disease: Read Less [-]

PB HLTH 275 Current Topics in Vaccinology 2 Units

Terms offered: Spring 2018, Spring 2016, Spring 2014

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.

Current Topics in Vaccinology: [Read More](#) [+]

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

Current Topics in Vaccinology: [Read Less](#) [-]

PB HLTH 277A Public Health Maps and Spatial Analysis 3 Units

Terms offered: Not yet offered

Students will acquire geospatial skills and apply them in the context of structural inequity, health disparities, and racial justice. Geospatial skills will be applied to public health problems that continue to demonstrate differences in health exposures, risks, and adverse outcomes for BIPOC living in the US, as well as to contribute to much poorer outcomes in the US than in other high income countries. The main learning objective in the course is to understand the importance of place in the display, analysis, and reporting of health data at local, national, and global scales. Each week, case studies will provide context for the specific ways in which place matters when thinking about public health and health services delivery.

Public Health Maps and Spatial Analysis: [Read More](#) [+]

Objectives & Outcomes

Course Objectives: Communicate information related to an important health issues including their geographic and demographic contexts.

How: Use the ESRI StoryMap Builder to incorporate short narratives, maps, infographics, and images into a web-based interactive communication tool.

Demonstrate the ability to design, implement, and apply spatial data to determine and display relative prevalence of diseases.

How: Create maps and perform kernel density and cluster/hot spot analysis for a specific disease

How: Create a dashboard to illustrate the location and incidence of disease cases

Illustrate how maps were used to contribute to structural racism by relating historic redlining maps to current health inequities.

How: Create a social vulnerability index from demographic and health indicators, and map the index by county

How: Compare a current map that illustrates social vulnerabilities to historic redlining maps from the Federal Housing Administration.

Illustrate the limitations of political boundaries (census areas, cities, counties), in predicting disease prevalence, and equity issues associated with health risks.

How: Use appropriate classification schema to overcome the "Modifiable Areal Unit Problem"

Predict concentrations of an environmental contaminant where data are missing

How: Use Kriging to interpolate values in an area that has some missing data.

Report survey data cartographically.

How: Develop and execute a geo-enabled survey on a public health issue

How: Create an interactive map of survey results

Rules & Requirements

Credit Restrictions: Students will receive no credit for PB HLTH 277A after completing PB HLTH 177A. A deficient grade in PB HLTH 277A may be removed by taking PB HLTH 177A.

Hours & Format

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

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Instructors: Smith, Ivey

Public Health Maps and Spatial Analysis: [Read Less](#) [-]

PB HLTH W277 Applied GIS for Public Health Practice 3 Units

Terms offered: Spring 2022, Spring 2021

This course will familiarize students with the principles, methods, and techniques necessary to apply Geographic Information Systems (GIS) in diverse public health practice settings. Case studies will be presented to introduce the application of GIS technologies for rendering disease surveillance maps, developing effective spatial data visualization, creating compelling and credible spatial risk maps, and acquiring and processing positioning information for health applications.

Applied GIS for Public Health Practice: [Read More](#) [+]

Rules & Requirements

Credit Restrictions: Students will receive no credit for PB HLTH W272B after completing PB HLTH 272B. A deficient grade in PB HLTH W272B may be removed by taking PB HLTH 272B.

Hours & Format

Fall and/or spring: 8 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.

Instructors: Smith, C, Casey, Midekisa, Sturrock

Formerly known as: Public Health W272B

Applied GIS for Public Health Practice: [Read Less](#) [-]

PB HLTH 278 Health Policymaking and 4+1 Competency Development 2 Units

Terms offered: Fall 2022

This course will provide 4+1 MPH students with a “homeroom,” a space to grow as a cohort, meet outstanding competencies, and be introduced to the internship process. The lion share of competencies addressed will be in Advocacy and Policymaking.

Health Policymaking and 4+1 Competency Development: [Read More](#) [+]

Objectives & Outcomes

Course Objectives: 1.

Compare the organization, structure and function of health care, public health, and regulatory systems across national and international settings.

2.

Explain basic principles and tools of budget and resource management.

3.

Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence.

4.

Evaluate policies for their impact on public health and health equity.

5.

Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes.

6.

Advocate for political, social, or economic policies and programs that will improve health in diverse populations.

7.

Communicate audience-appropriate public health content, both in writing and through oral presentation.

8.

Apply systems thinking tools to a public health issue.

Rules & Requirements

Prerequisites: 4+1 Student in first semester of program

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: Flagg

Health Policymaking and 4+1 Competency Development: [Read Less](#) [-]

PB HLTH 281 Public Health and Spirituality 2 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

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.

Public Health and Spirituality: Read More [+]

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

Public Health and Spirituality: Read Less [-]

PB HLTH 285A Public Health Injury Prevention and Control 2 Units

Terms offered: Fall 2022, Fall 2021, Fall 2020

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.

Public Health Injury Prevention and Control: Read More [+]

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

Public Health Injury Prevention and Control: Read Less [-]

PB HLTH C285 Traffic Safety and Injury Control 3 Units

Terms offered: Spring 2022, Spring 2021, Spring 2020

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.

Traffic Safety and Injury Control: Read More [+]

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

Traffic Safety and Injury Control: Read Less [-]

PB HLTH 288C Preventive Medicine Residency Seminar: Managed Care and Preventive Medicine 1 Unit

Terms offered: Spring 2022, Spring 2021, Spring 2020

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.

Preventive Medicine Residency Seminar: Managed Care and Preventive Medicine: Read More [+]

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

Preventive Medicine Residency Seminar: Managed Care and Preventive Medicine: Read Less [-]

PB HLTH 288D Preventive Medicine Residency Seminar: Public Administration 1 Unit

Terms offered: Spring 2022, Spring 2021, Spring 2020

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.

Preventive Medicine Residency Seminar: Public Administration: Read More [+]

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

Preventive Medicine Residency Seminar: Public Administration: Read Less [-]

PB HLTH W289 Interdisciplinary Health Seminar 3 Units

Terms offered: Summer 2022 First 6 Week Session, Summer 2021 First 6 Week Session, Summer 2020 First 6 Week Session

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.

Interdisciplinary Health Seminar: Read More [\[+\]](#)

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

Interdisciplinary Health Seminar: Read Less [\[-\]](#)

PB HLTH 290 Health Issues Seminars 1 - 4 Units

Terms offered: Fall 2022, Spring 2022, Fall 2021

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.

Health Issues Seminars: Read More [\[+\]](#)

Rules & Requirements

Repeat rules: Course may be repeated for credit without restriction.

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.

Health Issues Seminars: Read Less [\[-\]](#)

PB HLTH 291A Preparation for Public Health Practice 2 Units

Terms offered: Fall 2022, Spring 2022, Fall 2021

Series of skills-based workshops and sessions to introduce students to specialized leadership competencies needed in the public health workplace. These workshops complement the School of Public Health's (SPH) core curriculum and are selected based on the Council on Linkages between Academia and Public Health Practice, and regular feedback from public health practitioners, faculty and students. Workshop facilitators include UC Berkeley faculty, public health practitioners and consultants with expertise in the topic areas. Designed to teach the core public health skills relevant to pre-internship preparation and prepare students for professional success. Cases draw on past scenarios/challenges experienced in the PH field.

Preparation for Public Health Practice: Read More [\[+\]](#)

Rules & Requirements

Repeat rules: Course may be repeated for credit without restriction.

Hours & Format

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

Additional Details

Subject/Course Level: Public Health/Graduate

Grading: Letter grade.

Preparation for Public Health Practice: Read Less [\[-\]](#)

PB HLTH 292 Seminars for M.P.H. Students 1 - 4 Units

Terms offered: Fall 2022, Summer 2022 Second 6 Week Session, Spring 2022

Current topics and special issues in the health field.

Seminars for M.P.H. Students: Read More [\[+\]](#)

Rules & Requirements

Repeat rules: Course may be repeated for credit without restriction.

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.

Seminars for M.P.H. Students: Read Less [\[-\]](#)

PB HLTH 293 Doctoral Seminar 1 - 4 Units

Terms offered: Fall 2022, Spring 2022, Fall 2021

Discussion and analysis of dissertation research projects, as well as of conceptual and methodological problems in planning and conducting health research.

Doctoral Seminar: Read More [a]

Rules & Requirements

Repeat rules: Course may be repeated for credit without restriction.

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.

Doctoral Seminar: Read Less [-]

PB HLTH 297 Field Study in Public Health 1 - 12 Units

Terms offered: Fall 2017, Spring 2017, Fall 2016

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.

Field Study in Public Health: Read More [a]

Rules & Requirements

Repeat rules: Course may be repeated for credit without restriction.

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.

Field Study in Public Health: Read Less [-]

PB HLTH 298 Group Study 1 - 8 Units

Terms offered: Fall 2022, Spring 2022, Fall 2019

Group Study: Read More [a]

Rules & Requirements

Repeat rules: Course may be repeated for credit without restriction.

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.

Group Study: Read Less [-]

PB HLTH 299 Independent Research 1 - 12 Units

Terms offered: Summer 2016 10 Week Session, Spring 2016, Fall 2015

Independent study and research.

Independent Research: Read More [a]

Rules & Requirements

Repeat rules: Course may be repeated for credit without restriction.

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.

Independent Research: Read Less [-]

PB HLTH 375A School of Public Health Schoolwide Pedagogy Course 2 Units

Terms offered: Fall 2022, Spring 2022, Fall 2021

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. School of Public Health Schoolwide Pedagogy Course: Read More [\[+\]](#)

Objectives & Outcomes

Course Objectives: Assess student learning and grading student work fairly, consistently, and efficiently;
Build confidence in your abilities to teach.
Create and evaluate the effectiveness of discussion section plans that employ active learning strategies;
Critically reflect upon teaching and learning experiences and explain your choices as a teacher;
Describe and utilize a variety of teaching strategies and evaluation methods, including:
Develop a “toolbox” of teaching articles, resources and activities for future use; and,
Develop learning objectives for classroom activities and assignments;
Develop skills and demonstrate strategies to facilitate a more inclusive learning environment to meet the needs of diverse students
Develop skills in giving constructive feedback to peers on teaching;
Engage in collaborative learning to identify, discuss, evaluate and engage in teaching strategies designed for online or in-person class sessions;
Identify your teaching strengths and areas for development;
Reflect on your own identity, positionality and power and the role it plays in the classroom by learning about racism, anti-racism, inclusion, implicit bias, stigma, etc.
Utilize feedback and assessment tools to improve teaching;

Rules & Requirements

Repeat rules: Course may be repeated for credit without restriction.

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.

Instructors: Lachance, Sheats

Formerly known as: Public Health 333

School of Public Health Schoolwide Pedagogy Course: Read Less [\[-\]](#)

PB HLTH 375B Instructional Techniques in Biostatistics 2 Units

Terms offered: Fall 2018, Spring 2018, Fall 2017

Discussion and practice of techniques in teaching biostatistics as applied to public health topics.

Instructional Techniques in Biostatistics: Read More [\[+\]](#)

Rules & Requirements

Repeat rules: Course may be repeated for credit without restriction.

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

Instructional Techniques in Biostatistics: Read Less [\[-\]](#)