

Public Health

School of Public Health (<http://sph.berkeley.edu>)

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School Website: School of Public Health (<http://sph.berkeley.edu>)

Undergraduate Program

The School of Public Health offers an undergraduate major through the College of Letters and Science (<http://ls.berkeley.edu>). The goal of the major is to provide students with an interdisciplinary understanding of epidemiology, biostatistics, environmental health, health behavior, and health policy. These areas of emphasis range across the spectrum of natural science to social science. Students in the program will 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 a multicultural country and world.

Lower Division Requirements

- **Biological Science Requirement:** Biology 1B (required before declaration: minimum letter grade, B-); Biology 1A or two courses from the following: Molecular and Cell Biology 11, 32, 41, 50, 55, or 61; Nutritional Sciences 10
- **Mathematics Requirement:** Two courses from the following (or equivalent): Mathematics 32, 16A, 16B, or H16B, 10A, 10B, 1A, 1B or H1B
- **Social Sciences Requirement:** Three courses, drawn from at least two of the following groups: Psychology 1 or 2; Sociology 1, 3, 3AC, or 5; Economics 1, 2, or 3; Anthropology 3, 3AC, or 12AC; Political Science 2 or 4
- **Recommended:** Public Health 14

Upper Division Requirements

- Public Health 142, 150A, and two from the following: 150B, 150D, 150E, 162A
- Twelve units of elective courses are required. Students who plan to continue to graduate school are strongly advised to concentrate elective units in only one or two areas of study. Most other courses in public health, including graduate level classes (but excluding the decal and group study courses), can also meet elective requirements.
- **Biostatistics:** DEMOG 110: Introduction to Population Analysis (3), MATH 53: Multivariable Calculus (4), MATH 54: Linear Algebra and Differential Equations (4), PH 143: Introduction to Methods in Computational Biology (4), PH 145: Statistical Analysis of Continuous-Outcome Data (4), STAT 134: Concepts of Probability (3), STAT 135: Concepts of Statistics (4), STAT 150: Stochastic Processes (3), STAT 151AB: Linear Modeling: Theory and Application (8), STAT 152: Introduction to Time Series (4)

- **Infectious Diseases:** ESPM 145: Arthropod-borne Zoonotic Diseases (2), ESPM 146: Medical/Veterinary Entomology (3), IB 131: General Anatomy (3), IB 132: Survey of Human Physiology (3), IB 137: General Endocrinology (4), MCB 102: Principles of Biochemistry and Molecular Biology (4), MCB 114: Introduction to Comparative Virology (4), MCB 130: Cell Biology (4), MCB 140: General genetics (4) or MCB 142: Survey of General Genetics (4), MCB 142: Survey of General Genetics (4), MCB 150: Molecular Immunology (4), MCB 160: Introduction to Neurobiology (4), PMB 110: Biology of Fungi (4)
- **Epidemiology:** CHEM 112A, B: Organic Chemistry (10), DEMOG 110: Introduction to Population Analysis (3), GEOG 130: Food and the Environment (4), IB 131: General Human Anatomy (3), IB 132: Survey of Human Physiology (3), IB 140: Biology and Sociobiology of Human Reproduction (4), MCB 140: General Genetics (4), MCB 152: The Immune System (4), PH 112: Global Health: A Multidisciplinary Examination (4)
- **Environmental Health Sciences:** CE 108: Air Pollution Emission and Controls (3), CE 109: Indoor Air Quality (3), CE 110: Water Pollution Control and Treatment (3), CE 111: Environmental Engineering (3), CE 113N: Ecological Engineering for Water Quality Improvement (3), CE 114: Environmental Microbiology (3), CHEM 112A, B: Organic Chemistry (10), ECON C102/EEP C102: Natural Resource Economics (4), EEP 131: Globalization and the Natural Environment (4), EEP 152: Advanced Topics in Development and International Trade (3), EEP 153: Population, Environment, and Development (3), EEP 161: Advanced Topics in Environmental and Resource Economics (4), EEP C151/ ECON C171: Economic Development (4), EEP C181/ ECON C181: International Trade (4), ENR 102: Quantitative Aspects of Global Environmental Problems (4), ERG 100: Energy and Society (4), ERG 102: Quantitative Aspects of Global Environment Problems (4), ERG 130: Analysis of Environmental Data (3), ESPM 155: Sociology and Political Ecology of Agro-Food Systems (4), ESPM 167: Environmental Health and Development (4), ESPM 168: Political Ecology (3), ESPM 169: International Environmental Politics (4), GEOG 123: Postcolonial Geographies (4), GEOG 130: Food and the Environment (4), GEOG 138: Global Environmental Politics (4), HIST 120AC: Environmental and Cultural History of America (4), IAS C175/EEP C175: The Economics of Climate Change, ISF 100D: Introduction to Technology, Society, and Culture (4), NUTRISCI 166: Nutrition in the Community (3), PHC 172: Pharmacology and Toxicology (3), SOC 121: Innovation and Entrepreneurship: Social and Cultural Context (4), SOC 166: Society and Technology (4)
- **Health Policy & Management:** CY PLAN 112A: The Idea of Planning (3), CY PLAN 120: Community Planning and Public Policy for Disability (3), ECON 157: Health Economics (3), ESPM 102D: Resource and Environmental Policy (4), LS 103: Theories of Law and Society (4), LS 107: Theories of Justice (4), LS 165: Drug, Tobacco and Alcohol Policy (cross-listed with PP 162C) (3), LS 168: Sex, Reproduction and the Law (4), MASS COMM 102: The Effects of Mass Media (4), PH 116: Social, Political and Ethical Issues in Health and Medicine (2), PH 126: Health Economics and Public Policy (3), PH 180: Topics in Human Sexuality (2), PH 181: Population and Poverty (2-3), PH 183: History of Medicine and Public Health (3), PP 101: Introduction to Public Policy Analysis (4), PP 117AC: Race, Ethnicity and Public Policy (4), PP 156: Program and Policy Design (4), PP 179: Public Budgeting (4), PS 103: Congress

(4), PS 150: The American Legal System (3), PS 171: California Politics (4), SW 112: Social Welfare Policy (3)

- **Community Health & Human Development:** AAADS 143: Asian American Health (3), CHICANO 176: Chicanos and Health Care (3), NUTRISCI 166: Nutrition in the Community (3), PH 103: Drugs, Health, and Society (2), PH 104 A/B: Health Promotion in a College Setting (2/2), PH 105: Policy, Planning and Evaluation of Health Promotion in a College Setting (3), PH 113: Campus/Community Health Impact Program (3), PH 114: Issues in Personal and Community Health Promotion (3), PH 14: Introduction to Public Health (4), PH107: Violence, Social Justice, and Public Health (2), PHC129: Aging and the Human Brain (3), PHC155: Sociology of Illness (3)

For more information, please visit the undergraduate page at the School of Public Health website (<http://sph.berkeley.edu/undergraduate-major/about-major>) .

Graduate Programs

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 our 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, and 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. SPH faculty, support resources, and curricula focus on both the fundamental disciplines and their applications to particular problems. Within the University and 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: Biostatistics, Environmental Health Sciences, Epidemiology, Epidemiology/Biostatistics, Health and Social Behavior, Health Policy and Management, Health Services and Policy Analysis, Infectious Diseases and Vaccinology, Interdisciplinary, Maternal and Child Health, and Public Health Nutrition. The Doctor of Public Health (DrPH) (<http://sph.berkeley.edu/areas-study/doctor-public-health>) 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 public health practice.

Programs of study leading to the following academic degrees are administered by groups of faculty from the School of Public Health and other departments:

- **Biostatistics** (<http://sph.berkeley.edu/areas-study/biostatistics>) : MPH, MA, PhD
- **Environmental Health Sciences:** (<http://sph.berkeley.edu/areas-study/environmental-health-sciences>) 2-year MPH, 11-month MPH, MS, MS in Global Health and Environment, PhD, MCP/MPH, Occupational and Environmental Medicine Residency Program (with UCSF)
- **Epidemiology** (<http://sph.berkeley.edu/areas-study/epidemiology>) : 11-month MPH, MS, PhD
- **Epidemiology/Biostatistics** (<http://sph.berkeley.edu/areas-study/epidemiologybiostatistics>) : 2-year MPH, MCP/MPH, MSW/MPH, MBA/MPH, MPP/MPH, MJ/MPH
- **Health and Social Behavior** (<http://sph.berkeley.edu/areas-study/health-social-behavior>) : 2-year MPH, MSW/MPH, MCP/MPH
- **Health Policy and Management** (<http://sph.berkeley.edu/areas-study/health-policy-management>) : 11-month MPH, 2-year MPH, MPP/MPH, MBA/MPH, MCP/MPH
- **Health Services and Policy Analysis** (<http://sph.berkeley.edu/areas-study/health-services-policy-analysis>) : PhD
- **Infectious Diseases and Vaccinology** (<http://sph.berkeley.edu/areas-study/infectious-diseases-vaccinology>) : 2-year MPH, PhD in Infectious Diseases and Immunity
- **Interdisciplinary** (<http://sph.berkeley.edu/areas-study/interdisciplinary>) : MPH
- **Maternal and Child Health** (<http://sph.berkeley.edu/areas-study/maternal-child-health>) : 2-year MPH, 11-month MPH, MSW/MPH
- **Public Health Nutrition** (<http://sph.berkeley.edu/areas-study/public-health-nutrition>) : MPH

Applications for admission to the School of Public Health are accepted for the fall semester only, because of the sequencing of courses. To apply for graduate study, you must complete the UC Berkeley Graduate Application for Admission & Fellowships (<http://www.grad.berkeley.edu/admissions/index.shtml>) as well as the SOPHAS application (<http://www.sophas.org>) (the centralized application service for public health). Both applications must be electronically submitted online by December 1. Application instructions are available on the School of Public Health's website (<http://sph.berkeley.edu>) .

PB HLTH 14 Healthy People: Introduction to Health Promotion 4 Units**Department:** Public Health**Course level:** Undergraduate**Term course may be offered:** Fall**Grading:** Letter grade.**Hours and format:** 3 hours of Lecture and 1 hour of Discussion per week for 15 weeks.

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.

Instructor: Kodama

PB HLTH 14N Healthy People: Introduction to Health Promotion 3 Units**Department:** Public Health**Course level:** Undergraduate**Term course may be offered:** Summer**Grading:** Letter grade.**Hours and format:** 6 hours of lecture and 1 hour of discussion per week for 8 weeks.

This course introduces students to the basic theories and skills of personal and community health promotion within a public health context. Using a broad multi-disciplinary perspective, the course will examine selected health topics with particular attention to individual and group behaviors and their implications for personal and community health.

Course Objectives:

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

Instructors: Harris, Gamble

PB HLTH 24 Freshman Seminar in Public Health 1 Unit**Department:** Public Health**Course level:** Undergraduate**Terms course may be offered:** Fall and spring**Grading:** The grading option will be decided by the instructor when the class is offered.**Hours and format:** 1 hour of lecture/discussion per week.

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.

Course may be repeated for credit. Course may be repeated for credit when topic changes.

PB HLTH 39C Freshman/Sophomore Seminar 2 - 4 Units**Department:** Public Health**Course level:** Undergraduate**Terms course may be offered:** Fall and spring**Grading:** The grading option will be decided by the instructor when the class is offered.**Hours and format:** Seminar format. 1 hour of seminar per week per unit.

Freshman and sophomore seminars offer lower-division students the opportunity to explore an intellectual topic with a faculty member and a