

# Public Health Sciences, B.S.

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The B.S. in Public Health Sciences and the B.A. in Public Health Policy ([http://catalogue.uci.edu/programinpublichealth/publichealthpolicy\\_ba/](http://catalogue.uci.edu/programinpublichealth/publichealthpolicy_ba/)) degree programs train students in multidisciplinary approaches to public health practice and research. The degrees explore both quantitative and qualitative aspects of public health at all levels of analysis. Graduates will advance, through selective employment or further education, to become the new generation of public health professionals prepared to face the emerging challenges to human health from a population perspective using cutting-edge approaches for preventing diseases.

Students who are interested in pursuing a premedical program should note that additional courses will be needed beyond the requirements of the public health degrees to fulfill requirements for medical school.

Students considering the public health degrees should carefully evaluate their academic preparation and career goals before enrolling in either the B.S. or B.A. degree program. Changing from a degree program to the other is possible, but will require completion of the required lower- and upper-division courses specified for each degree. It is also possible for a student to enroll in both the B.S. and B.A. degree programs (double major), provided the student completes all the requirements outlined under each degree.

The Department also offers two undergraduate minors; one in Public Health and a second in Global Health. Students seeking advising on either minor should visit the Public Health Student Affairs Office.

## Academic Advising: Academic, Career, Public Health

AIRB Suite 2010

Program in Public Health Student Affairs Office ([http://publichealth.uci.edu/ph/\\_undergraduate/student\\_services/](http://publichealth.uci.edu/ph/_undergraduate/student_services/))

### Academic Advising

The Public Health Student Affairs Office coordinates the advising program and provides academic counseling. Undergraduate Public Health students should consult the Public Health Student Affairs Office for information on academic requirements for their degree(s), career opportunities, the Public Health 198/199 Research Program, the Public Health Honors Research Program, and student organizations such as the Public Health Association (<https://phauci.wixsite.com/phauci/>) and the Global Health Research, Education, and Translation (G.H.R.E.A.T.) (<http://ghreat.uci.edu/gh/#/>). Students can also visit the Public Health Student Affairs Office to process change-of-major requests, apply for graduation, obtain information about public health alumni, professional development, or for any other help they might need related to their academic career at UCI.

**Peer Academic Advisors.** The Peer Academic Advisors are upper-division Public Health majors who bring with them valuable academic, social, and professional experiences. Their functions include counseling students in matters of major selection, program planning, petitioning, tutoring, learning skills problems, and participation in co-curricular and extracurricular activities. The Peer Advisors are located in the Public Health Student Affairs Office. Office hours are posted at the beginning of each quarter.

### Career Advising

Information on graduate and professional schools in public health can be obtained from the Public Health Student Affairs Office. The UCI Career Center provides services to students and alumni including career counseling, information about job opportunities, a career library, and workshops on resume preparation, job search, and interview techniques. See the [Career Center](http://catalogue.uci.edu/informationforadmittedstudents/lifeoncampus/#healthwellnesscounselingcaretext) (<http://catalogue.uci.edu/informationforadmittedstudents/lifeoncampus/#healthwellnesscounselingcaretext>) section (<http://catalogue.uci.edu/informationforadmittedstudents/lifeoncampus/#careerctrtext>) for additional information.

Areas of opportunity open to those with a Bachelor of Science in Public Health Sciences degree include public health agencies, clinical laboratories, biotechnology and health care companies, not-for-profit organizations specializing in health care, health management organizations, advanced public health training programs in county, state, and federal agencies, and graduate and professional education in public health and related health-care disciplines. The bachelor's degree is necessary to pursue studies leading to the M.S. and Ph.D. degrees. The B.S. degree, plus short training periods, may prepare students for employment in education, medical technology (usually one year), allied health positions, and various other areas.

Areas of opportunity open to those with a Bachelor of Arts in Public Health Policy degree include population health management organizations, health care administration and planning, health insurance companies, public health agencies, public health advocacy groups, corporate planning, health promotion, health education (in hospitals, clinics, government agencies, etc.), mental health, chemical dependency, case managing, insurance, health strategizing, fundraising, community organization, social and legislative work for health, and graduate and professional education in public health and related health-care disciplines. The B.A. degree, plus brief training periods, may prepare students for employment in education, administration, nonprofit corporations, and various other areas.

Education (community colleges, state colleges, or private schools), medical illustration, and public health (which includes hospital administration, biostatistics, epidemiology, environmental health sciences, social work, public health education, maternal and child health, and chronic, infectious, and tropical diseases) are fields in which opportunities are available upon completion of a master's program. Other areas where advanced degrees are necessary include medicine, dentistry, law, nursing, actuary, optometry, podiatry, osteopathy, physical therapy, and veterinary medicine.

## Health Sciences Advising

Students desiring to enter the health sciences should have their majors checked in the Public Health Student Affairs Office. Admissions tests for medical, dental, pharmacy, nursing, veterinary medicine, and graduate schools should be taken in the spring, a year and one-half before the student plans to enter.

Administrators and academic leaders in nearly all health professional schools recommend that students preparing to seek admission to their schools plan to obtain a bachelor's degree. Students who plan to enter a school of dentistry, medicine, or other areas of the health sciences may receive the required pre-professional training at UCI. This pre-professional training may be accomplished by (1) completing a major in Public Health Sciences or Public Health Policy *and* specializing the degree to complete specific course requirements of the dental, medical, or other professional school the student expects to attend or (2) majoring in any school or department *and* fulfilling concurrently the specific course requirements of the dental, medical, or other professional school the student expects to attend.

Public Health Practicum and Culminating Experience (PUBHLTH 195W) is an 8-unit required course for students majoring in Public Health Policy or Public Health Sciences. The course allows students to gain hands-on experience at an approved organization in the field of public health. Preparation for the Practicum course requires that each student interview at one of the approved Practicum sites. There is an online catalog of approved organizations that have agreed to accept, train, and supervise Public Health students in the ongoing activities of the organization. Students must choose a placement site listed in the Practicum catalog. Unlisted sites may be considered at an approved organization through an application process. All students are required to spend 100 hours (10 hours per week) at the public health organization during the quarter in which they are enrolled in PUBHLTH 195W.

Practicum is open only to upper-division Public Health students who are in good academic standing, have completed all prerequisite course work, and have submitted a graduation application. Practicum must be taken for a letter grade. PUBHLTH 195W must be completed with a minimum letter grade of C. Additional information, including Practicum enrollment procedures and prerequisites, can be found at the Public Health website (<http://publichealth.uci.edu>).

## Requirements for the B.S. in Public Health Sciences

**All students must meet the** University Requirements (<http://catalogue.uci.edu/informationforadmittedstudents/requirementsforabachelorsdegree/>).

**All students must meet the** Program Requirements (<http://catalogue.uci.edu/programinpublichealth/#programrequirements>).

### Major Requirements

#### A. Lower-Division Requirements

PUBHLTH 1	Principles of Public Health
PUBHLTH 2	Case Studies in Public Health Practice
CHEM 1A- 1B- 1C- 1LC- 1LD	General Chemistry and General Chemistry and General Chemistry and General Chemistry Laboratory and General Chemistry Laboratory
CHEM 51A- 51B- 51C- 51LB- 51LC	Organic Chemistry and Organic Chemistry and Organic Chemistry and Organic Chemistry Laboratory and Organic Chemistry Laboratory
BIO SCI 93	From DNA to Organisms
BIO SCI 94	From Organisms to Ecosystems
BIO SCI 97	Genetics
BIO SCI 98	Biochemistry
BIO SCI 99	Molecular Biology
MATH 2A- 2B	Single-Variable Calculus and Single-Variable Calculus
or	
MATH 5A- 5B	Calculus for Life Sciences and Calculus for Life Sciences
PUBHLTH 7A	Public Health Statistics I
Select three of the following:	
<b>Psychology:</b>	
PSCI 9	Introduction to Psychology
<b>Sociology:</b>	
SOCIOL 1	Introduction to Sociology

SOCIOL 2	Globalization and Transnational Sociology
SOCIOL 3	Social Problems
<b>Economics:</b>	
ECON 1	Introduction to Economics
ECON 13	Global Economy
ECON 20A	Basic Economics I
ECON 20B	Basic Economics II
<b>Anthropology:</b>	
ANTHRO 2A	Introduction to Sociocultural Anthropology
ANTHRO 2B	Introduction to Biological Anthropology
ANTHRO 2C	Introduction to Archaeology
ANTHRO 2D	Introduction to Language and Culture
ANTHRO 41A	Global Cultures and Society
<b>Political Science:</b>	
POL SCI 31A	Introduction to Political Theory
POL SCI 51A	Introduction to Politics Around the World
<b>Social Ecology:</b>	
SOCECOL E8	
<b>International Studies:</b>	
INTL ST 11	Global Cultures and Society
INTL ST 13	Global Economy
<b>B. Upper-Division Requirements</b>	
PUBHLTH 101	Introduction to Epidemiology
Select two of the following:	
BIO SCI D103	Cell Biology
BIO SCI D104	Developmental Biology
BIO SCI E109	Human Physiology
BIO SCI N110	Neurobiology and Behavior
Five additional upper-division courses with at least one course chosen from each of the three topic areas: <sup>1</sup>	
<b>Epidemiology, Genetics, and Health Informatics:</b>	
BIO SCI D137	Eukaryotic and Human Genetics <sup>2</sup>
BIO SCI D148	Development and Disease <sup>2</sup>
BIO SCI E106	Processes in Ecology and Evolution <sup>2</sup>
BIO SCI M123	Introduction to Computational Biology <sup>2</sup>
BIO SCI M137	Microbial Genetics <sup>2</sup>
COMPSCI 183	Introduction to Computational Biology <sup>2</sup>
PSCI 183S	Social Epidemiology
PUBHLTH 102–119 <sup>2</sup>	
<b>Environmental and Global Health Sciences:</b>	
ANTHRO 125B	Ecological Anthropology <sup>2</sup>
ANTHRO 128B	Race, Gender, and Science
ANTHRO 134A	Medical Anthropology
ANTHRO 134C	Medicine, Food, and Health <sup>2</sup>
ANTHRO 134F	Anthropology of the Body
ANTHRO 134G	HIV/AIDS in a Global Context
BIO SCI D124	Biology of Integrative Medicine
BIO SCI E179	Limnology and Freshwater Biology <sup>2</sup>
BIO SCI E179L	Field Freshwater Ecology <sup>2</sup>
BIO SCI E189	Environmental Ethics <sup>2</sup>
CHEM 125	Advanced Organic Chemistry <sup>2</sup>
CHC/LAT 176	Race, Gender, and Science
PUBHLTH 126	Public Health Law: Fundamentals in Action

PUBHLTH 127	Public Health Programs for the Corporate World
PUBHLTH 160–179 <sup>2</sup>	
PUBHLTH 190	Geographic Information Systems for Public Health <sup>2</sup>
PUBHLTH 193	Ethics and Responsible Conduct of Research in Public Health
SOCECOL E127	Nuclear Environments
<b>Infectious and Chronic Diseases:</b>	
BIO SCI D111L	Developmental and Cell Biology Laboratory <sup>2</sup>
BIO SCI E112L	Physiology Laboratory <sup>2</sup>
BIO SCI E124	Infectious Disease Dynamics <sup>2</sup>
BIO SCI E136	The Physiology of Human Nutrition <sup>2</sup>
BIO SCI M114	Advanced Biochemistry
BIO SCI M114L	Biochemistry Laboratory <sup>2</sup>
BIO SCI M116	Advanced Molecular Biology <sup>2</sup>
BIO SCI M116L	Molecular Biology Laboratory <sup>2</sup>
BIO SCI M118L	Experimental Microbiology Laboratory <sup>2</sup>
BIO SCI M121	Immunology with Hematology <sup>2</sup>
BIO SCI M121L	Advanced Immunology Laboratory <sup>2</sup>
BIO SCI M122	General Microbiology
BIO SCI M125	Molecular Biology of Cancer <sup>2</sup>
BIO SCI M143	Human Parasitology <sup>2</sup>
PHRMSCI 170A	Molecular Pharmacology I <sup>2</sup>
PHRMSCI 170B	Molecular Pharmacology II <sup>2</sup>
PUBHLTH 150	Public Health and Wellness
PUBHLTH 180–189 <sup>2</sup>	
<b>C. Practicum Requirement</b>	
PUBHLTH 195W	Public Health Practicum and Culminating Experience (8 units) <sup>3</sup>

- <sup>1</sup> Upon petition, PUBHLTH 100 may also be taken to fulfill upper-division course work in specific topic areas, depending on course content.
- <sup>2</sup> Note additional prerequisites.
- <sup>3</sup> Taken for upper-division writing credit.