Program in Public Health

Anteater Instruction & Research Building, Suite 2010
Undergraduate Advising: (949) 824-2358
Graduate Advising: (949) 824-7095
http://publichealth.uci.edu/

The Program in Public Health was established in 2003 to provide institutional focus for existing academic strengths in various sub-disciplines of public health and to facilitate well-grounded education and innovative research in emerging cross-disciplinary topics in the field. Undergraduate degree programs in public health began enrolling students in 2006, and the Department of Population Health and Disease Prevention was established in 2007 to advance the collaborative interdisciplinary mission of public health research, education, service, and professional development. The Department offers a B.S. in Public Health Sciences, a B.A. in Public Health Policy, a minor in Public Health, and a Master of Public Health (M.P.H.) in three emphases: Environmental Health, Epidemiology, and Sociocultural Diversity and Health. Information regarding the Program in Public Health’s future plans is available at http://publichealth.uci.edu/. The Program is fully accredited by the Council on Education for Public Health (http://ceph.org/).

Department of Population Health and Disease Prevention

Oladele Ogunseitan, Department Chair

Overview

The mission of the Department of Population Health and Disease Prevention is to create, integrate, and translate population-based knowledge into preventive strategies to reduce the societal burden of human disease and disability through excellence in interdisciplinary research, education, and service. This is a forward-thinking mission that acknowledges and complements traditional discipline-based research and training in public health. It is a specific mission that is increasingly recognized by eminent organizations such as the Institute of Medicine’s Board on Population Health and Public Health Practice, by research and education funding institutions such as the Robert Wood Johnson Foundation’s Health & Society Scholars Program, and by distinguished Schools of Public Health.

New sources of funding for research and education are emerging, including the translational science initiative of the National Institutes of Health, to support this ecological paradigm of public health. The societal challenges facing health care and the burden of diseases at the community, national, and international levels have increased the demand for experts capable of researching, developing, and implementing programs to prevent disease and to improve population health. The Department hosts activities that bridge disciplinary perspectives, methods, and practices to nurture new leaders in public health through research and training on risk factors that render people vulnerable to diseases in their communities and the development of strategies for preventing disease by separating risk factors from specific vulnerable populations.

Degrees

<table>
<thead>
<tr>
<th>Public Health Policy</th>
<th>B.A.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Health Sciences</td>
<td>B.S.</td>
</tr>
<tr>
<td>Public Health*</td>
<td>M.P.H.</td>
</tr>
</tbody>
</table>

* With emphases in Environmental Health; Epidemiology; and Sociocultural Diversity and Health.

Honors

Honors Research Program in Public Health

The Public Health Honors Program provides an opportunity for selected outstanding students in the program to pursue advanced work in independent research and earn honors in Public Health upon graduation. Successful completion of the honors program requires three quarters of commitment, while enrolled in PUBHLTH H192A-PUBHLTH H192B-PUBHLTH H192C. Students are also expected to enroll in supervised Undergraduate Research (PUBHLTH 199) with their research mentor. The program concludes with a presentation and submission of an honors culminating thesis.

Eligibility and Application Process

In order to be considered, a student must have satisfied the following requirements: completion of all lower-division Public Health courses required for the major; completion of at least five upper-division Public Health courses; an overall UCI grade point average of a minimum of 3.5; and a minimum 3.5 grade point average in all required and completed Public Health courses. Acceptance into the program is based upon evidence of the student’s ability, interest in research, and proposed thesis project with a faculty member.

Admission to the program is based on formal invitation and/or an application to participate in the Public Health Honors Program submitted by the student in the spring quarter of the junior year.

Requirements

Beyond fulfilling the regular courses required for either the Public Health Sciences or Public Health Policy major, honor students must take the following:

<table>
<thead>
<tr>
<th>A. Fall Quarter</th>
<th>PUBHLTH H192A</th>
<th>Public Health Honors Seminar and Thesis I (4 units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUBHLTH 199</td>
<td>Undergraduate Research (4 units)</td>
<td></td>
</tr>
<tr>
<td>B. Winter Quarter</td>
<td>PUBHLTH H192B</td>
<td>Public Health Honors Seminar and Thesis II (1 unit)</td>
</tr>
<tr>
<td>PUBHLTH 199</td>
<td>Undergraduate Research (4 units)</td>
<td></td>
</tr>
<tr>
<td>C. Spring Quarter</td>
<td>PUBHLTH H192C</td>
<td>Public Health Honors Seminar and Thesis III (1 unit)</td>
</tr>
<tr>
<td>PUBHLTH 199</td>
<td>Undergraduate Research (4 units)</td>
<td></td>
</tr>
</tbody>
</table>

Graduation with Honors

Honors at graduation, e.g., *cum laude, magna cum laude, summa cum laude*, are awarded to about 12 percent of the graduating seniors. Eligibility for such honors will be on the basis of grade point average (GPA). A minimum overall GPA of 3.5 is required for consideration. Students must have completed at least 72 units in residence at a University of California campus by the end of the final quarter prior to graduation. The student’s cumulative record at the end of the final quarter is the basis for consideration for awarding Latin honors. Other important factors are considered (See “Honors Recognition” catalogue.uci.edu/previouseditions/2013-14/informationforadmittedstudents/divisionofundergraduateeducation).
The B.S. in Public Health Sciences and the B.A. in Public Health Policy 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 prevention approaches.

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 program. 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 an undergraduate minor.

**Academic Advising: Academic, Career, Public Health**

AIRB Suite 2010
http://publichealth.uci.edu/ph_docs/new_ugrad

**Academic Advising**

The Public Health Student Services Office coordinates the advising program and provides academic counseling. Undergraduate Public Health students should consult the Public Health Student Services Office for information on academic requirements for the degree, career opportunities, the Public Health 198/199 Research Program, the Public Health Honors Research Program, and student organizations such as the Public Health Association. Students can also visit the Public Health Student Services 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 Services 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 Services 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 (catalogue.uci.edu/previouseditions/2013-14/informationforadmittedstudents/lifeoncampus/#careerctrtext) section for additional information.

Areas of opportunity open to those with a Bachelor of Science in Public Health Sciences degree include laboratory technology, publishing, technical editing, pharmaceutical sales, and training programs in county, state, and federal agencies. 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 health care administration and planning, lobbying, corporate planning, health promotion, health education (in hospitals, clinics, government agencies, etc.), mental health, chemical dependency, case managing, insurance, health strategizing, fundraising, community organization, and social work. 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 Services Office. Admissions tests for medical, dental, pharmacy, and graduate schools should be taken in the spring, a year and one-half before the student plans to enter.

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 preprofessional training at UCI. This preprofessional training may be accomplished by (1) completing a major in Public Health Sciences 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.

Practicum

A major part of the undergraduate curriculum in Public Health is the Practicum requirement. 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 officials at a selected site. 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 will not be approved for registration. All students are required to spend 100 hours (about 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 and have completed all prerequisite course work. Practicum must be taken for a letter grade. Additional information, including Practicum enrollment procedures and prerequisites, can be found at http://publichealth.uci.edu/.

Admission to the Majors

Freshmen: There are no specific requirements for admission at the freshman level, however completion of a college preparatory high school curriculum including two years of high school biology, a combination of natural science courses including one year each of mathematics and chemistry, and courses in health science and social sciences will be helpful. Grades of B or better are recommended in all of these preparatory courses.

Transfer students: Junior-level applicants with the highest grades overall and who satisfactorily complete lower-division requirements will be given preference for admission to the Public Health majors. All applicants to the B.S. degree in Public Health Sciences must have a minimum overall GPA of 3.0 and a minimum GPA of 3.0 in required courses, one year of general chemistry with laboratory, and one year of courses equivalent to UCI’s Biological Sciences 93 and 94. All applicants to the B.A. degree in Public Health Policy must have a minimum overall GPA of 3.0 and a minimum GPA of 3.0 in required courses, and complete one year of social science courses in any combination of the following topics: anthropology, economics, sociology, and/or psychology.

Change of major. Students who wish to change their major to Public Health Sciences or Public Health Policy should contact the Public Health Student Services office for information about change-of-major requirements, procedures, and policies. Information is also available at http://www.changeofmajor.uci.edu.

Requirements for the Bachelor's Degree

All Program in Public Health students must complete the following requirements.

All students must meet the University Requirements (catalogue.uci.edu/previouseditions/2013-14/informationforadmittedstudents/requirementsforabachelorsdegree).

Program Requirements:

Grade Requirement: A minimum grade point average of at least C (2.0) is required (1) overall, (2) in all courses required for the major program, (3) in the upper-division courses required for the major, and (4) in Public Health 195W.

Residence Requirement: After matriculation, all Public Health courses required for the major must be successfully completed at UCI. The Program in Public Health strictly enforces the UCI residence requirement. At least 36 of the final 45 units completed by a student for the bachelor’s degree must be earned in residence at the UCI campus. (The Program considers courses taken in the Education Abroad Program to be in-residence courses.)

Normal Progress: Students in the Public Health Program are expected to make progress toward their degree, and their progress will be monitored. If normal academic progress toward the degree in Public Health is not being met, students will be subject to probation.

Double Majoring and Minoring

Second majors and/or minors will not be approved unless the student can complete both the degree and double major/minor(s) in their allotted time permitted at UCI. Students must be in good standing and not on academic probation for acceptance as a double major/minor(s).

Students may not enter as a double major, but Public Health students interested in other areas may apply for a double major after their first quarter, if the Public Health Program approves.

Overlap Restrictions

Double Majoring in Public Health Sciences and Public Health Policy. Students may double major in Public Health Sciences and Public Health Policy; however there are only seven courses that may overlap between the two majors. Students may overlap PUBHLTH 1, PUBHLTH 2, PUBHLTH 101, MATH 2A, MATH 2B, STATS 7 or STATS 8, and PUBHLTH 195W. There are no other courses that can count for both majors.
Other Double Majors. In fulfilling degree requirements for multiple majors, a maximum of two courses may overlap between any two majors.

Major and Minor Requirements. In fulfilling minor requirements, a maximum of two courses may overlap between a major and minor. No course overlap is permitted between minors.

Students may not double major in Public Health Sciences, Pharmaceutical Sciences, Nursing Science, Biomedical Engineering: Premedical, or with any of the School of Biological Sciences majors or minors.

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

All students must meet the University Requirements (catalogue.uci.edu/previouseditions/2013-14/informationforadmittedstudents/requirementsforabachelorsdegree).

All students must meet the Program Requirements.

Major Requirements

A. Lower-Division Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUBHLTH 1</td>
<td>Principles of Public Health</td>
</tr>
<tr>
<td>PUBHLTH 2</td>
<td>Case Studies in Public Health Practice</td>
</tr>
<tr>
<td>CHEM 1A-1B-1C-1LD</td>
<td>General Chemistry and General Chemistry and General Chemistry Laboratory and General Chemistry Laboratory</td>
</tr>
<tr>
<td>CHEM 51A-51B-51C-51LC</td>
<td>Organic Chemistry and Organic Chemistry and Organic Chemistry Laboratory and Organic Chemistry Laboratory</td>
</tr>
<tr>
<td>BIO SCI 93</td>
<td>From DNA to Organisms</td>
</tr>
<tr>
<td>BIO SCI 94</td>
<td>From Organisms to Ecosystems</td>
</tr>
<tr>
<td>BIO SCI 97</td>
<td>Genetics</td>
</tr>
<tr>
<td>BIO SCI 98</td>
<td>Biochemistry</td>
</tr>
<tr>
<td>BIO SCI 99</td>
<td>Molecular Biology</td>
</tr>
<tr>
<td>MATH 2A-2B</td>
<td>Single-Variable Calculus and Single-Variable Calculus</td>
</tr>
<tr>
<td>STATS 7 or STATS 8</td>
<td>Basic Statistics Introduction to Biological Statistics</td>
</tr>
</tbody>
</table>

And three Social and Behavioral Science courses, with at least two in the same discipline selected from the following:

Psychology:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>PSY BEH 9</td>
<td>Introduction to Psychology</td>
</tr>
</tbody>
</table>

Sociology:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>SOCIOL 1</td>
<td>Introduction to Sociology</td>
</tr>
<tr>
<td>SOCIOL 2</td>
<td>Global and International Sociology</td>
</tr>
<tr>
<td>SOCIOL 3</td>
<td>Introduction to Social Problems</td>
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</tbody>
</table>

Economics:

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ECON 1</td>
<td>Introduction to Economics</td>
</tr>
<tr>
<td>ECON 13</td>
<td>Global Economy</td>
</tr>
<tr>
<td>ECON 20A</td>
<td>Basic Economics I</td>
</tr>
<tr>
<td>ECON 20B</td>
<td>Basic Economics II</td>
</tr>
</tbody>
</table>

Anthropology:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTHRO 2A</td>
<td>Introduction to Sociocultural Anthropology</td>
</tr>
<tr>
<td>ANTHRO 2B</td>
<td>Introduction to Biological Anthropology</td>
</tr>
<tr>
<td>ANTHRO 2C</td>
<td>Introduction to Archaeology</td>
</tr>
<tr>
<td>ANTHRO 2D</td>
<td>Introduction to Language and Culture</td>
</tr>
</tbody>
</table>

Political Science:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>POL SCI 6C</td>
<td>Introduction to Political Science: Micropolitics</td>
</tr>
<tr>
<td>POL SCI 31A</td>
<td>Introduction to Political Theory</td>
</tr>
<tr>
<td>POL SCI 51A</td>
<td>Introduction to Politics Around the World</td>
</tr>
</tbody>
</table>

Social Ecology:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCECOL E8</td>
<td>Introduction to Environmental Analysis and Design</td>
</tr>
</tbody>
</table>

B. Upper-Division Requirements

PUBHLTH 101 | Introduction to Epidemiology |

Select two of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO SCI D103</td>
<td>Cell Biology</td>
</tr>
<tr>
<td>BIO SCI D104</td>
<td>Developmental Biology</td>
</tr>
<tr>
<td>BIO SCI E109</td>
<td>Human Physiology</td>
</tr>
<tr>
<td>BIO SCI N110</td>
<td>Neurobiology and Behavior</td>
</tr>
</tbody>
</table>

Five additional upper-division courses with at least one course chosen from each of the three topic areas:

**Epidemiology, Genetics, and Health Informatics:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO SCI D137</td>
<td>Eukaryotic and Human Genetics</td>
</tr>
<tr>
<td>BIO SCI D148</td>
<td>Development and Disease</td>
</tr>
<tr>
<td>BIO SCI D153</td>
<td>Molecular and Cellular Basis of Disease</td>
</tr>
<tr>
<td>BIO SCI E106</td>
<td>Processes in Ecology and Evolution</td>
</tr>
<tr>
<td>BIO SCI M123</td>
<td>Introduction to Computational Biology</td>
</tr>
<tr>
<td>BIO SCI M137</td>
<td>Microbial Genetics</td>
</tr>
<tr>
<td>COMPSCI 183</td>
<td>Introduction to Computational Biology</td>
</tr>
<tr>
<td>PSY BEH 183S</td>
<td>Social Epidemiology</td>
</tr>
</tbody>
</table>

**Environmental and Global Health Sciences:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTHRO 125B</td>
<td>Ecological Anthropology</td>
</tr>
<tr>
<td>ANTHRO 128B</td>
<td>Race, Gender, and Science</td>
</tr>
<tr>
<td>ANTHRO 134A</td>
<td>Medical Anthropology</td>
</tr>
<tr>
<td>BIO SCI D124</td>
<td>Biology of Integrative Medicine</td>
</tr>
<tr>
<td>BIO SCI E118</td>
<td>Ecosystem Ecology</td>
</tr>
<tr>
<td>BIO SCI E140</td>
<td>Evolution and the Environment</td>
</tr>
<tr>
<td>BIO SCI E151</td>
<td>Population Dynamics in Ecology, Epidemiology, and Medicine</td>
</tr>
<tr>
<td>BIO SCI E179</td>
<td>Limnology and Freshwater Biology</td>
</tr>
<tr>
<td>BIO SCI E189</td>
<td>Environmental Ethics</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>-------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>BIO SCI 191A- 191B</td>
<td>Senior Seminar on Global Sustainability I and Senior Seminar on Global Sustainability II</td>
</tr>
<tr>
<td>BIO SCI 191CW</td>
<td>Writing/Senior Seminar on Global Sustainability III</td>
</tr>
<tr>
<td>CHEM 125</td>
<td>Advanced Organic Chemistry</td>
</tr>
<tr>
<td>CHC/LAT 176</td>
<td>Race, Gender, and Science</td>
</tr>
<tr>
<td>CRM/LAW C148</td>
<td>Geographic Information Systems</td>
</tr>
<tr>
<td>EARTHSS 112</td>
<td>Global Climate Change and Impacts</td>
</tr>
<tr>
<td>EARTHSS 164</td>
<td>Ecosystem Ecology</td>
</tr>
<tr>
<td>EARTHSS 190A- 190B</td>
<td>Senior Seminar on Global Sustainability I and Senior Seminar on Global Sustainability II</td>
</tr>
<tr>
<td>EARTHSS 190CW</td>
<td>Writing/Senior Seminar on Global Sustainability III</td>
</tr>
<tr>
<td>PUBHLTH 126</td>
<td>Public Health Law: Fundamentals in Action</td>
</tr>
<tr>
<td>PUBHLTH 160–179</td>
<td>Geographical Information Systems for Public Health</td>
</tr>
<tr>
<td>PUBHLTH 190</td>
<td>Principles of Public Health</td>
</tr>
<tr>
<td>SOCECOL E127</td>
<td>Nuclear Environments</td>
</tr>
<tr>
<td>SOCECOL 186A- 186B</td>
<td>Senior Seminar on Global Sustainability I and Senior Seminar on Global Sustainability II</td>
</tr>
<tr>
<td>SOCECOL 186CW</td>
<td>Writing/Senior Seminar on Global Sustainability III</td>
</tr>
</tbody>
</table>

**Infectious and Chronic Diseases:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO SCI D111L</td>
<td>Developmental and Cell Biology Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI D125</td>
<td>The Biology and Genetics of Cancer</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI E124</td>
<td>Infectious Disease Dynamics</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI E136</td>
<td>The Physiology of Human Nutrition</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI E137</td>
<td>Genetics of Complex Traits</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI E176</td>
<td>Evolution of Infectious Disease</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI M114</td>
<td>Advanced Biochemistry</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI M114L</td>
<td>Biochemistry Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI M116</td>
<td>Advanced Molecular Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI M116L</td>
<td>Molecular Biology Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI M118L</td>
<td>Experimental Microbiology Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI M121</td>
<td>Immunology with Hematology</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI M121L</td>
<td>Advanced Immunology Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI M122</td>
<td>General Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI M122L</td>
<td>Advanced Microbiology Laboratory</td>
<td>4</td>
</tr>
</tbody>
</table>

**Major Requirements**

**A. Lower-Division Requirements**

PUBHLTH 1 | Principles of Public Health

PUBHLTH 2 | Case Studies in Public Health Practice

Select three of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO SCI 9A</td>
<td>Nutrition Science</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI 9D</td>
<td>Diseases of the Twenty-First Century</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI 9G</td>
<td>Way Your Body Works</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI 9J</td>
<td>Biology of Oriental Medicine</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI 9N</td>
<td>Introduction to Complementary and Alternative Medicine</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI 10</td>
<td>The Biology of Human Diseases</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI 12B</td>
<td>Disease and Civilization</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI 12D</td>
<td>Molecular Basis of Human Disease</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI 25</td>
<td>Biology of Cancer</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI 30</td>
<td>Biomedical Ethics</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI 35</td>
<td>The Brain and Behavior</td>
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</tr>
<tr>
<td>BIO SCI 36</td>
<td>Drugs and the Brain</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI 37</td>
<td>Brain Dysfunction and Repair</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI 38</td>
<td>Mind, Memory, Amnesia, and the Brain</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI 45</td>
<td>AIDS Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI 93</td>
<td>From DNA to Organisms</td>
<td>4</td>
</tr>
</tbody>
</table>

1. CHEM 1C and CHEM 1LC are corequisites. Series change effective for new students beginning fall 2011.
2. Series change effective beginning fall 2012. CHEM 1LD will be a prerequisite for CHEM 51LB.
3. Upon petition, PUBHLTH 100 may also be taken to fulfill upper-division course work in specific topic areas, depending on course content.
4. Note additional prerequisites.
5. Taken for upper-division writing credit.

**Requirements for the B.A. Degree in Public Health Policy**

All students must meet the University Requirements.

All students must meet the Program Requirements.

**Major Requirements**

**A. Lower-Division Requirements**

PUBHLTH 1 | Principles of Public Health

PUBHLTH 2 | Case Studies in Public Health Practice

Select three of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO SCI 9A</td>
<td>Nutrition Science</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI 9D</td>
<td>Diseases of the Twenty-First Century</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI 9G</td>
<td>Way Your Body Works</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI 9J</td>
<td>Biology of Oriental Medicine</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI 9N</td>
<td>Introduction to Complementary and Alternative Medicine</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI 10</td>
<td>The Biology of Human Diseases</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI 12B</td>
<td>Disease and Civilization</td>
<td>4</td>
</tr>
<tr>
<td>BIO SCI 12D</td>
<td>Molecular Basis of Human Disease</td>
<td>4</td>
</tr>
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<td>4</td>
</tr>
</tbody>
</table>
BIO SCI 94
Complete:
MATH 2A- 2B
STATS 7
or STATS 8
And three Social and Behavioral Science courses, with at least two in the same discipline selected from the following:

<table>
<thead>
<tr>
<th>Psychology:</th>
<th>Sociology:</th>
<th>Economics:</th>
<th>Anthropology:</th>
<th>Political Science:</th>
<th>Social Ecology:</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY BEH 9</td>
<td>SOCIOL 1</td>
<td>ECON 1</td>
<td>ANTHRO 2A</td>
<td>POL SCI 6C</td>
<td>SOCECOL E8</td>
</tr>
<tr>
<td>Introduction to Psychology</td>
<td>Introduction to Sociology</td>
<td>Introduction to Economics</td>
<td>Introduction to Sociocultural Anthropology</td>
<td>Introduction to Political Science: Micropolitics</td>
<td>Introduction to Environmental Analysis and Design</td>
</tr>
<tr>
<td>PSY BEH 103H</td>
<td>SOCIOL 2</td>
<td>ECON 13</td>
<td>ANTHRO 2B</td>
<td>POL SCI 31A</td>
<td>ANTHRO 2C</td>
</tr>
<tr>
<td>Health Psychology</td>
<td>Global and International Sociology</td>
<td>Global Economy</td>
<td>Introduction to Biological Anthropology</td>
<td>Introduction to Political Theory</td>
<td>Introduction to Archaeology</td>
</tr>
<tr>
<td>PSY BEH 135H</td>
<td>SOCIOL 3</td>
<td>ECON 20A</td>
<td>ANTHRO 2C</td>
<td>POL SCI 51A</td>
<td>ANTHRO 2D</td>
</tr>
<tr>
<td>Introduction to Biopsychology</td>
<td>Introduction to Social Problems</td>
<td>Basic Economics I</td>
<td>Introduction to Archaeology</td>
<td>Introduction to Politics Around the World</td>
<td>Introduction to Language and Culture</td>
</tr>
</tbody>
</table>

| MGMT 107 | MGMT 160 | MGMT 165 |
| Introduction to Management Information Systems | Introduction to Business and Government | US Healthcare Systems |
| MGMT 166 | MGMT 190 | PP&D 102 |
| Business in Medicine | Special Topics in Management | Urban Inequality |
| PP&D 111 | PP&D 112 | PP&D 111 |
| Strategies of Health Promotion | Foundations of Community Health | Environmental Sustainability II |
| PP&D 132 | PP&D 134 | PP&D 134 |
| Human Ecology | Urban Design Principles | Urban Public Policy |
| PP&D 135 | PP&D 166 | PP&D 166 |
| Urban Public Policy | Public Design Principles | Urban Public Policy |
| PP&D 169 | PP&D 169 | PP&D 169 |
| Public Policy Analysis | Social and Behavioral Health Sciences: | |

| ANTHRO 134A | CRM/LAW C149 | PSY BEH 103H |
| Medical Anthropology | Violence in Society | Health Psychology |
| ANTHRO 134E | PSY BEH 135H | PSY BEH 136H |
| Caring vs. Curing | Introduction to Biopsychology | Behavioral Medicine |
| CRM/LAW C149 | PSY BEH 137H | PSY BEH 138H |
| Environmental Psychology | Human Stress | Child Health Psychology |
| PSY BEH 141H | PSY BEH 171S | PSY BEH 178S |
| Clinical Health Psychology | Environmental Psychology | Violence in Society |
| PSY BEH 181S | PSY BEH 183S | PSY BEH 183S |
| Beliefs, Attitudes, and Health Behaviors | Social Epidemiology | Social Epidemiology |

| PUBHLTH 195W | PUBHLTH 190 | PUBHLTH 140–159 |
| Public Health Practicum and Culminating Experience (8 units) | Geographical Information Systems for Public Health | War and Public Health |

1 Upon petition, PUBHLTH 100 may also be taken to fulfill upper-division course work in specific topic areas, depending on course content.
taken on a Pass/Not Pass basis, distributed as follows:

Nine courses are required (36 units), no more than two of which may be

Requirements for the Minor

A. Complete:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUBHLTH 1</td>
<td>Principles of Public Health</td>
</tr>
<tr>
<td>PUBHLTH 2</td>
<td>Case Studies in Public Health</td>
</tr>
</tbody>
</table>

B. Six upper-division courses in Public Health with at least one from each of four subject-cluster areas as follows:

**Epidemiology, Genetics, and Health Informatics**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUBHLTH 101–119</td>
<td>Epidemiology, Genetics, and Health Informatics</td>
</tr>
</tbody>
</table>

**Health Policy and Management**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUBHLTH 120–139</td>
<td>Health Policy and Management</td>
</tr>
</tbody>
</table>

**Social and Behavioral Health Sciences**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUBHLTH 140–159</td>
<td>Social and Behavioral Health Sciences</td>
</tr>
</tbody>
</table>

**Environmental and Global Health Sciences**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUBHLTH 160–179</td>
<td>Environmental and Global Health Sciences</td>
</tr>
</tbody>
</table>

**Infectious and Chronic Diseases**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUBHLTH 180–189</td>
<td>Infectious and Chronic Diseases</td>
</tr>
</tbody>
</table>

C. Complete:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUBHLTH 198</td>
<td>Directed Studies (4 units)</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>PUBHLTH 199</td>
<td>Undergraduate Research (or equivalent)</td>
</tr>
</tbody>
</table>

1 Course work must be on topics demonstrably related to public health research and/or practice. The courses selected to fulfill this requirement must have Public Health number designations. Petitions to use alternative courses will be considered on a case-by-case basis.

No more than two courses may overlap between the student’s major degree and the minor in Public Health.

Residence Requirement: A minimum of six courses required for the minor must be completed at UCI. Approved courses taken in the UC Education Abroad Program are considered to be in-residence courses.

Graduate Program

Master of Public Health

The distinctive mission of the UCI M.P.H. program is to create a motivated cadre of public health professionals who are prepared to implement effective strategies for reducing the burden of disease and disability in culturally diverse communities, and who are primed to draw from their broad training in the global dimensions of public health principles to lead and work collaboratively on precise assessments of health-risk factors and on the management of evidence-based prevention strategies.

In addition to meeting all the training requirements in the core competency subjects recommended by the Association of Schools of Public Health (ASPH), students enrolled in the UCI M.P.H. program will have the opportunity for in-depth pursuit of one of three emphasis areas: Environmental Health, Epidemiology, or Sociocultural Diversity and Health. The M.P.H. is a 60-unit program. A full-time student must enroll in at least 12 units per quarter. Part-time enrollment is also allowed. To maintain residency, part-time students must enroll in four to eight units per quarter. All students are required to complete 240 hours of fieldwork at an approved public health practicum site. The Program is fully accredited by the Council on Education for Public Health (http://ceph.org/).

Further information may be obtained from the Public Health Web site, http://publichealth.uci.edu/ , by calling (949) 824-7095 or by sending e-mail to phgo@uci.edu.

Career Information

Graduates of the UCI M.P.H. program will find employment in both public and private agencies committed to preventing disease and promoting health in all aspects of society. Earning a graduate degree gives new professionals a competitive edge over students who complete their education at the bachelor’s degree level. In particular, the curriculum of the M.P.H. program at UCI is specifically designed to create students who can combine knowledge of the five core disciplines in public health with leadership, communication, and problem-solving skills to meet the needs of culturally diverse communities. Earning an M.P.H. degree will allow graduates to pursue supervisory positions and career advancement opportunities that may be unattainable without an advanced degree. Students may also wish to combine an M.P.H. with a clinical degree in the health professions to increase opportunities for employment.
Course work in the M.P.H. program can also prepare a student to pursue doctoral programs in public health. The Ph.D. is a research-based degree that prepares the candidate for research and teaching positions in institutions of higher education. The Dr.P.H. is a professional degree that prepares candidates for careers as practitioners in high-level administration or teaching. UCI does not currently offer these degrees, but a proposal for a Ph.D. in Public Health with concentrations in global health and disease prevention is under review. Meanwhile, prospective applicants who wish to pursue doctoral studies with Public Health faculty may apply to the Ph.D. in Social Ecology with a concentration in Epidemiology and Public Health. More information about careers and graduate school in public health can be obtained through the Association of Schools of Public Health (http://www.whatispublichealth.org) and the Council of Education for Public Health (http://www.ceph.org).

General Admission Requirements

The M.P.H. program accepts students for the fall quarter only. Students are encouraged to begin the application process early to facilitate the timely submission of the application. The deadline for receipt of all application materials for the M.P.H. program is January 15. There are no specific course prerequisites needed to enroll, and the program is open to students with bachelor’s degrees in a variety of disciplines. Individuals from diverse cultural, geographic, and socioeconomic backgrounds are encouraged to apply.

To be eligible to apply for the M.P.H. program, applicants must meet certain minimum academic requirements. Applicants must hold a bachelor’s degree from an accredited academic institution, have earned a minimum grade point average of 3.0 (B average) in undergraduate course work, and possess strong verbal and quantitative skills as reflected by the Graduate Record Examination (GRE) General Test scores. Applicants may also submit standardized test scores from the MCAT, GMAT, or LSAT in lieu of the GRE. If the applicant has, from a UC-equivalent university, a Ph.D. in a health-related field, a medical degree, or is currently enrolled in medical school, a test score must be submitted, but the test score’s date does not need to be within the validity period. Evaluations of applicant files for admission to the M.P.H. program will consist of an assessment of transcripts of previous academic work, standardized graduate admission test scores, statement of purpose, letters of recommendation, and other relevant qualifications. Applicants must choose one of the three available emphases at the time of application. For more information on admissions, visit http://publichealth.uci.edu/ or contact phgo@uci.edu.

Program Requirements

The M.P.H. is a 60-unit degree program consisting of fourteen courses taken over five quarters. Eight courses must be taken by all students. In addition, students choose three courses in their emphasis and three elective courses. The introductory course in the foundations of public health and the five core competency courses must be taken for a letter grade. Any foundation or core competency courses in which a minimum grade of B is not achieved must be re-taken.

Required Courses. All students begin the program with a four-unit introductory course in the foundations of public health. The five core competency courses, each of which is four units, are Public Health Statistics, Environmental Health Science, Epidemiology, Health Policy and Management, and Health Behavior Theory. Students must also complete at least two quarters of the Graduate Seminar for two units each quarter, and the Graduate Practicum in Public Health (eight units).

Emphasis Courses. Three courses (four units each) in one of the three emphases are required. Students choose their emphasis at the time of application and select courses with the help of a faculty mentor in that emphasis.

Elective Courses. Three elective courses (four units each) are required. Students select electives in light of their educational and career goals.

Practicum and Culminating Experience. Students are required to complete a supervised internship of 240 hours while registered in the Graduate Practicum and Culminating Experience in Public Health (PUBHLTH 295). The practicum experience follows the first three academic quarters of study in public health, the completion of all core competency courses, and advancement to candidacy. A compendium of approved practicum sites is available online to enrolled M.P.H. students. The student’s work at the practicum site is expected to culminate in a comprehensive written report.

All M.P.H. students are required to maintain an electronic portfolio to document their academic and practical progress throughout the curriculum. The portfolio facilitates reflection on core and emphasis area competencies defined for the M.P.H. degree. Students are required to give an oral presentation near the end of their studies to demonstrate competence for the degree.

Comprehensive Examination. A two-part comprehensive examination will be administered by the faculty of the student’s area of emphasis in the fall quarter. The normative time to take the exam is in the fall quarter, but it is also offered in the spring by special request. Part one consists of a multiple choice proctored examination on the core competency areas and the cross-disciplinary themes of public health. Part two consists of an analysis of case studies in the student’s area of emphasis. Students must pass both parts of the examination before they can be advanced to candidacy for the M.P.H. degree.

For students enrolled full-time, the normative time for completion of the M.P.H. degree is six quarters, and the maximum time permitted is nine quarters. For students enrolled part-time, the normative time is nine quarters, and the maximum is fifteen quarters. Students admitted with advanced standing due to prior graduate-level training may receive credit for up to one-fifth of the total units required toward the M.P.H. degree, upon petition and demonstration of competency associated with those courses. Such credits are not applicable to the graduate practicum and graduate seminar.

Faculty

Alpesh Amin, M.D., M.B.A., M.A.C.P., S.F.H.M. Northwestern University, Professor of Medicine, Management, Public Health, and Nursing Science; Executive Director, Hospitalist Program; and Thomas and Mary Cesario Endowed Chair in Medicine, Department of Medicine

Dean Bradford Baker, M.D. University of California, San Diego; M.P.H. University of California, Berkeley; Chief, Division of Occupational and Environmental Medicine, Director of the UCI Center for Occupational and Environmental Health, and Professor of Clinical Medicine, Public Health, and Environmental Health, Science, and Policy

Scott M. Bartell, Ph.D. University of California, Davis, Associate Professor of Public Health

Hans-Ulrich Bernard, Ph.D. University Göttingen, Professor of Molecular Biology and Biochemistry and of Public Health
Zuzana Bic, Dr.P.H. Loma Linda University, Lecturer with Security of Employment, Public Health

Stephen C. Bondy, Ph.D. University of Birmingham, Professor, Departments of Medicine (Occupational and Environmental Medicine) and Pharmacology

Brandon Brown, Ph.D. Johns Hopkins Bloomberg School of Public Health, Lecturer with Potential Security of Employment, Public Health

Tim-Allen Bruckner, Ph.D. University of California, Berkeley, Assistant Professor of Public Health and of Planning, Policy, and Design

Bharath Chakravarthy, M.D. Boston University, M.P.H. University of California, Los Angeles, Health Sciences Assistant Clinical Professor and Residency Program Director, Department of Emergency Medicine and Public Health

Wayne Chang, M.D. University of California, Irvine, Health Sciences Associate Clinical Professor, Department of Medicine (Occupational and Environmental Medicine)

Yunan Chen, Ph.D. Drexel University, Assistant Professor of Informatics and Public Health

Bongkyoo Choi, Sc.D. University of Massachusetts, Lowell; M.P.H. Seoul National University, Assistant Professor, Department of Medicine (Occupational and Environmental Medicine) and Public Health

Ralph W. Cygan, M.D. State University of New York Downstate Medical Center, Health Sciences Clinical Professor, Department of Medicine (General Internal Medicine) and Program in Public Health

Robert Detrano, M.D., Ph.D. University of Rome, Health Sciences Clinical Professor, Department of Radiological Sciences

Rufus Edwards, Ph.D. University of Medicine and Dentistry of New Jersey and Rutgers, The State University of New Jersey, Associate Professor of Public Health

Chad P. Garner, Ph.D. Oxford University, Associate Professor in Residence, Department of Epidemiology, and Associate Professor of Public Health

Daniel L. Gillen, Ph.D. University of Washington, Associate Professor of Statistics and Public Health

F. Allan Hubbell, M.D., M.S.P.H. Baylor University College of Medicine, Senior Associate Dean for Academic Affairs, School of Medicine, and Professor, Department of Medicine (General Internal Medicine) and Program in Public Health

Leslie Israel, D.O. University of Health Sciences, Missouri, Health Sciences Associate Clinical Professor, Department of Medicine (Occupational and Environmental Medicine)

Michael T. Kleinman, Ph.D. New York University, Adjunct Professor Recalled, Department of Medicine (Occupational and Environmental Medicine)

Elliott Kornhauser, M.D. University of Toronto, Health Sciences Associate Clinical Professor, Department of Medicine (Occupational and Environmental Medicine)

Cynthia Lakon, Ph.D. University of North Carolina, Chapel Hill, Assistant Professor of Public Health

Shahram Lotfipour, M.D. University of Iowa, Associate Dean for Clinical Science and Professor of Clinical Emergency Medicine, Department of Emergency Medicine and Program in Public Health

Ulrike Luderer, M.D., Ph.D. Northwestern University; M.P.H. University of Washington, Associate Professor, Departments of Medicine (Occupational and Environmental Medicine) and of Developmental and Cell Biology

Lisa Grant Ludwig, Ph.D. California Institute of Technology, Associate Professor of Public Health

Frank L. Meyskens, Jr., M.D. University of California, San Francisco, Vice Dean of the School of Medicine; Professor, Departments of Medicine (Hematology/Oncology), Biological Chemistry, and Program in Public Health; and Daniel G. Aldrich, Jr. Endowed Chair

Michael J. Montoya, Ph.D. Stanford University, UCI Chancellor’s Fellow and Associate Professor of Anthropology, Chicano/Latino Studies, and Public Health

Dana Mukamel, Ph.D. University of Rochester, Professor, Department of Medicine (General Internal Medicine)

Andrew Noymer, Ph.D. University of California, Berkeley, Associate Professor of Public Health

Oladele Ogunseitan, Ph.D. University of Tennessee, Professor, School of Medicine and Program in Public Health

Peter Schnall, M.D., M.P.H., Stanford University, Health Sciences Clinical Professor, School of Medicine and Program in Public Health

Roxane Cohen Silver, Ph.D. Northwestern University, Professor of Psychology and Social Behavior, Medicine, and Public Health

Lisa Sparks, Ph.D. University of Oklahoma, Adjunct Professor of Public Health

Sharon Stern, Ph.D. University of Utah, Senior Lecturer with Security of Employment Emerita, Public Health

Daniel Stokols, Ph.D. University of North Carolina, UCI Chancellor’s Professor Emeritus of Planning, Policy, and Design; Psychology and Social Behavior; and Public Health

David Timberlake, Ph.D. University of California, San Diego, Assistant Professor of Public Health and Epidemiology

Veronica Vieira, Ph.D. Boston University, Associate Professor of Public Health

Lari Wenzel, Ph.D. Arizona State University, Professor of Medicine (General Internal Medicine) and Public Health

Jun Wu, Ph.D. University of California, Los Angeles, Assistant Professor of Public Health and Epidemiology

Guiyun Yan, Ph.D. University of Vermont, Professor of Public Health and of Ecology and Evolutionary Biology
Courses

PUBHLTH 1. Principles of Public Health. 4 Units.
Introduces the major concepts and principles of public health and the determinants of health status in communities. Emphasizes the ecological model that focuses on the linkages and relationships among multiple natural and social determinants affecting health. Course may be offered online.

Restriction: Public Health Sciences, Public Health Policy, and Nursing Science majors have first consideration for enrollment.

PUBHLTH 2. Case Studies in Public Health Practice. 4 Units.
Presents case studies in various themes of public health practice to demonstrate how the principles of public health were established and continue to evolve.

Prerequisite: PUBHLTH 1.

Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 30. Human Environments. 4 Units.
Study of natural and physical components of earth’s environmental problems due to human activities. Topics include global air, water, soil, biodiversity, rainforests, energy, demographics, agriculture, and urbanization. Theme is sustainability. Integrated into the science are social, legal, and economic considerations.

PUBHLTH 60. Environmental Quality and Health. 4 Units.
A survey of how pollution in the natural and physical environment affects human health. Topics are toxicology, epidemiology, risk assessment, water, food, air, radiation, pesticides, solid and hazardous waste. Included are interdisciplinary elements of environmental regulations, environmental education, consumer protection.

PUBHLTH 80. AIDS Fundamentals. 4 Units.
Considers the biological and sociological bases of the AIDS epidemic. Topics include the history of AIDS, current medical knowledge, transmission, risk reduction, and how the community can respond.

Same as BIO SCI 45.

PUBHLTH 90. Natural Disasters. 4 Units.
Natural disasters are natural processes that adversely affect humans. By examining these processes students develop a basic understanding of Earth’s physical environment. Topics include: tectonics, earthquakes, volcanoes, landslides, severe weather, flooding, climate change, mass extinctions and impacts with space objects.

PUBHLTH 91. Disparities in Health Care. 2-8 Units.
Student participatory course practicing initiation, planning, and coordination of various speakers on the subject of Disparities in Health Care.

Grading Option: Pass/no pass only.

Repeatability: May be taken for credit for 8 units.

PUBHLTH 100. Special Topics in Public Health. 4 Units.
Studies in selected areas of public health. Topics addressed vary each quarter. Course may be offered online when topic is Public Health in the Corporate World.

Prerequisite: PUBHLTH 1.

Repeatability: Unlimited as topics vary.

PUBHLTH 101. Introduction to Epidemiology. 4 Units.
The distribution of disease and injury across time, space and populations. Covers basic concepts and methods of descriptive epidemiology including the natural history of disease, data, and indices of health.

Prerequisite: STATS 7 or STATS 8.

Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 102. Social Epidemiology. 4 Units.
Overviews evidence linking environmental factors to mental and physical disorders including such variables as socioeconomic status, income inequality, work stress, job loss, social capital, location, and other demographic characteristics. Measurement and research design issues of both individual and aggregate levels.

Prerequisite: (PSY BEH 9 or PSY BEH 11C or PSYCH 7A or PSYCH 9C) and SOCECOL 10 and SOCECOL 13.

Same as PSY BEH 183S.

Restriction: Psychology and Social Behavior, Social Ecology, Public Health Sciences, and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 103. Introduction to Genetic Epidemiology. 4 Units.
Examines the methodological approaches for studying the importance of genetic factors and gene-environment interactions in human diseases. Topics include: genetic and epidemiological concepts, population studies, family studies, and applications in medicine and public health.

Prerequisite: PUBHLTH 101.

Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 104. Analytic and Applied Epidemiology. 4 Units.
Covers basic concepts of analytic epidemiology and applications, including experimental and observational designs, prevention, screening, treatment and rehabilitation, infectious disease, and injury prevention.

Prerequisite: PUBHLTH 101.

Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 105. Introduction to Medical Informatics. 4 Units.
Broad overview of medical informatics for students with varied backgrounds. Electronic medical records, online resources, mobile technologies, patient safety, and computational design. Legal, ethical, and public policy issues. Health systems management. Evaluation and fieldwork for health systems.

Same as IN4MATX 171.

Restriction: Upper-division students only.
PUBHLTH 106. Project in Health Informatics. 4 Units.
Students undertake significant quarter-long projects related to health informatics. Topics may include field evaluations of health care technologies, prototypes, iterative design, and system implementations.
Prerequisite: PUBHLTH 105 or IN4MATX 171.
Same as IN4MATX 172.

PUBHLTH 107. Epidemiology of Drug Use and Misuse. 4 Units.
Applies epidemiologic concepts to the use and misuse of licit/illicit substances. Emphasizes descriptive aspects of drug use and determinants of progressing from experimental use to misuse. Assesses subgroups of abusers, risk factors, trends, and surveillance techniques for estimating drug prevalence.
Prerequisite: PUBHLTH 1.
Restriction: Upper-division students only. Public Health Policy and Public Health Sciences majors have first consideration for enrollment.

PUBHLTH 109. Special Topics in Epidemiology and Genetics. 4 Units.
Studies in selected areas of epidemiology and genetics. Topics addressed vary each quarter.
Prerequisite: PUBHLTH 1.
Repeatability: Unlimited as topics vary.

PUBHLTH 110. Nutrition and Global Health. 4 Units.
Global issues related to nutrition and public health. Evaluation of nutritional risk factors associated with the development of chronic diseases and the role of nutritional medicine in prevention. Topics include food safety, communicable diseases, supplements, and regulatory issues.
Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 111. Introduction to Complementary and Alternative Medicine. 4 Units.
Examines health and disease in contemporary American culture/society with definitions, models, and practices of what has come to be known as "orthodox" or "conventional" medicine. Selected "alternative" or "complementary" modes of promoting health and well-being including homeopathy, herbology, and chiropractic.
Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 120. Health Policy. 4 Units.
Considers social and economic aspects of health and disease in the United States. What are the proper roles of the individual, community, and government in improving health and health care? International comparisons will be made wherever possible.
Same as PP&D 170.
Restriction: Urban Studies, Social Ecology, Public Health Sciences, and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 121. Public Issues in Biotechnology. 4 Units.
An assessment of developments in biotechnology potentially affecting various facets of human society, or warranting significant public debate. Covers the implications of genetic engineering and other biotechnological developments for public health, environment, agriculture, legislation, research ethics, public policy, and commerce.
Prerequisite: PUBHLTH 1 and PUBHLTH 2.
Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 122. Environmental and Public Health Policy. 4 Units.
Examines the role of science in public health policy, the function of governmental regulatory agencies, citizen participation, and economic and sociopolitical aspects of controlling infectious diseases and regulating carcinogens.
Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 123. Foundations of Community Health. 4 Units.
A social ecological framework for understanding community health is presented. Measures of individual and community health are compared, and the influence of personal and environmental factors on individual, group, and population health is examined. Community health promotion strategies are discussed.
Same as PP&D 112.
Restriction: Urban Studies, Social Ecology, Public Health Sciences, and Public Health Policy majors have first consideration for enrollment.

Addresses the relationship of U.S. public health law to health systems at the individual and population levels. Examines legislative and judicial concepts and how they are applied to disease prevention strategies, health services, management, and policy.

PUBHLTH 125. Public Health Programs for the Corporate World. 4 Units.
International perspective on workplace health promotion. Strategies for developing programs to improve employee health and to decrease risks of chronic degenerative diseases. Case studies include assessment of employee health, program design, implementation, and evaluation. Emphasis on disease prevention. Course may be offered online.

PUBHLTH 126. Public Health Administration. 4 Units.
Examines historical aspects of public health administration including policies, procedures, trends, and development of organizations. Addresses information and skills necessary to succeed in public health leadership roles. Discusses strategic planning, collaborations, and ethical considerations for successful management in public health.
Prerequisite: PUBHLTH 1.
Restriction: Upper-division only. Public Health Policy and Public Health Sciences majors have first consideration for enrollment.
PUBHLTH 134. Asian American Community Public Health. 4 Units.
Focuses on major issues and concepts of community health and their application to public health programs for Asian American populations. Analyzes individual, institutional, community, and policy factors that influence a person’s health status within a larger environmental context.

Same as ASIANAM 134.

PUBHLTH 139. Special Topics in Health Policy and Administration. 4 Units.
Studies in selected areas of health policy and administration. Topics addressed vary each quarter.
Prerequisite: PUBHLTH 1.
Repeatability: Unlimited as topics vary.
Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 140. Beliefs, Attitudes, and Health Behaviors. 4 Units.
Examines health-relevant beliefs, attitudes, and behaviors from a social psychological perspective. Topics include: self-control; obesity; sexual behavior; medication errors; stress; perceived control; social support; happiness and well-being; changing health attitudes and behaviors; self-disclosure and health.
Prerequisite: PSY BEH 9 or PSY BEH 11C or PSYCH 7A or PSYCH 9C.
Same as PSY BEH 181S.
Restriction: Psychology and Social Behavior, Social Ecology, Public Health Policy, and Public Health Sciences majors have first consideration for enrollment.

PUBHLTH 141. Clinical Health Psychology. 4 Units.
Behavioral role in etiology, treatment, and prevention of certain diseases. Behavioral intervention including biofeedback, stress-, pain-management, health habit counseling, and other skills to assist patients make cognitive, emotional, and behavioral changes needed to cope with disease or achieve better health.
Prerequisite: PSY BEH 9 or PSY BEH 11C or PSYCH 7A or PSYCH 9C.
Same as PSY BEH 141H.
Restriction: Public Health Sciences, Public Health Policy, and Psychology and Social Behavior majors have first consideration for enrollment.

PUBHLTH 142. The Human Pain Experience. 4 Units.
Examines the physiological and sociocultural correlates of human pain perception. Emphasis on laboratory and clinical methods of measuring acute and chronic pain; social influences on the experience and communication of pain; biopsychosocial approaches to pain control.
Prerequisite: (PSY BEH 9 or PSY BEH 11C or PSYCH 7A or PSYCH 9C) and any upper-division course from the Health or Pre-clinical Psychology areas.
Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 143. Social Ecology of Health Promotion. 4 Units.
Core themes of Social Ecology are examined as they apply to major areas of health promotion research and practice. Students attend lectures and work collaboratively on team projects conducted in university and community settings.
Same as SOCECOL 131.
Restriction: Public Health Sciences, Public Health Policy, and Social Ecology majors have first consideration for enrollment.

PUBHLTH 144. Health Behavior Theory. 4 Units.
Introduces theoretical perspectives from the social sciences to understand health behavior from the vantage point of individuals, their interpersonal contacts, communities, and ecological contexts. Application of theory to public health problems is a central focus.
Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 146. Health Promotion Programs. 4 Units.
Examines ecological perspectives of health promotion programs and risk factors related to mortality/morbidity. Analyzes effectiveness of health promotion strategies and issues in the existing healthcare systems in light of sociocultural beliefs and economical/political conditions.
Prerequisite: PUBHLTH 1.
Restriction: Upper-division students only. Public Health Policy and Public Health Sciences majors have first consideration for enrollment.

PUBHLTH 147. Drug Abuse and Its Prevention. 4 Units.
Theoretical and practical underpinnings of drug abuse and its prevention at the individual and population levels. Students practice developing drug abuse prevention schemes for specific populations. Recent developments in pharmacological and biobehavioral theories of drug dependence are explored.
Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 148. Public Health Communication. 4 Units.
Theoretical underpinnings and practical applications of communication sciences in public health practice. Techniques of effective communication, including fear appeal and deterrence; social marketing; public-private partnerships; health service delivery; and outreach in rural and urban settings, and for international health strategies.
Prerequisite: PUBHLTH 1 and PUBHLTH 2.
Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.
PUBHLTH 151. Environmental Psychology. 4 Units.
Impact of the physical environment on individual and group behavior. Three basic concerns examined: (a) environmental determinants of behavior at the individual and interpersonal level; (b) social planning and urban design; (c) methodological approaches to the study of environmental issues.
Prerequisite: SOCECOL E8 or SOCECOL 10 or PP&D 4.
Same as PSY BEH 171S, PP&D 151.
Restriction: Urban Studies, Social Ecology, Psychology and Social Behavior, Public Health Sciences, and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 159. Special Topics in Social and Behavioral Health Science. 4 Units.
Studies in selected areas of social and behavioral health sciences. Topics addressed vary each quarter.
Prerequisite: PUBHLTH 1.
Repeatability: Unlimited as topics vary.

PUBHLTH 160. Environmental Pollution and Remediation. 4 Units.
The study of pollution—its identification, risks, and remediation. Analysis of sources of natural and anthropogenic environmental pollutants using ecological concepts, chemical fate and transport, engineering technologies, economics, and policy to provide understanding and solutions to these problems.
Restriction: Upper-division students only. Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 161. Environmental Geology. 4 Units.
Introduction to geologic principles and applications to environmental problems. Topics include: tectonic processes, earth materials, soils, river processes, groundwater, the coastal environment, slope failures, seismic hazards, mineral resources, and land-use evaluation based on geologic conditions. Examples from case studies.
Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 162. Human Ecology of Health. 4 Units.
Many human health problems are directly associated with ethnicity, sex, and age. Integrates the science of these issues with anthropology, geography, economics to understand the relationship, management, treatment. Involves lectures and discussions to probe these factors.
Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 163. Introduction to Environmental Health Science. 4 Units.
Focuses on processes of exposure to environmental toxins/agents and their impact to human health and the environment. Media transport, exposure assessment, susceptibility, behavior, and health effect of several toxins are discussed.
Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 164. Toxic Chemicals in the Environment. 4 Units.
Explores the sources, transformation, and sinks of toxic chemicals in the environment, and their effects on public health. Covers regulatory issues and design-for-the-environment initiatives to reduce or eliminate the adverse effects of toxic chemicals.
Prerequisite: PUBHLTH 1 and PUBHLTH 2.
Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 164L. Toxic Chemicals in the Environment Laboratory. 4 Units.
Covers field sampling techniques and laboratory analysis methods for assessing the occurrence and effects of toxic chemicals in environmental compartments, including water, soils, sediments, air, and food resources.
Prerequisite: PUBHLTH 1 and PUBHLTH 2. Prerequisite or corequisite: PUBHLTH 164.
Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 165. Issues in Potable Water Reuse. 4 Units.
Provides an in-depth study of the treatment and subsequent reuse of wastewater for drinking. Analyzes existing regulations for both drinking water and reuse situations, microbial and chemical contaminants, health concerns and risk assessment.
Prerequisite: SOCECOL E8.
Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 166. Geographic Information Systems. 4 Units.
Basic geographic, cartographic, and GIS concepts including computer representation of physical, political, statistical, and social aspects of space using vector and grid-based maps. Experience with extensive geographic base map files and databases through use of GIS software (ArcView 3.x).
Same as CRM/LAW C148.
Restriction: Public Health Sciences, Public Health Policy, and Criminology, Law and Society majors have first consideration for enrollment.

PUBHLTH 167. Air Pollution, Climate, and Health. 4 Units.
Introduction to how air pollutants are emitted into the atmosphere, how people are most exposed to air pollutants in developed and developing areas, physical and meteorological processes that affect transport, and the influence of air pollutants on global warming.
Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 168. Nuclear Environments. 4 Units.
Understanding the impact of the nuclear age on the environment and human health through interrelated developments of nuclear power and nuclear weapons. The early years of weapon development, catastrophic environmental pollution, perils of nuclear power in the U.S. and Russia.
Same as INTL ST 122, SOCECOL E127.
PUBHLTH 169. Human Exposure Modeling. 4 Units.
Indirect methods in estimating human exposure to environmental agents. Topics include air, noise, dermal and ingestion exposure assessment, time-activity and micro-environmental approach, uncertainty and variability analysis, and the use of GIS and remote sensing in exposure assessment.

Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 170. Introduction to Global Health. 4 Units.
Provides a foundational interdisciplinary understanding of global health issues and their importance to various societal goals, including poverty reduction, economic productivity, and peace promotion. Covers major communicable and non-communicable diseases and demographic patterns of disease burden.

Prerequisite: PUBHLTH 1.

PUBHLTH 171. Human Exposure to Environmental Contaminants. 4 Units.
Introduces origins of human’s realization that chemicals in the environment may adversely affect health. Introduces the theory and principles of exposure assessment. Covers estimation of exposure, variability of measures, the way exposure assessment is incorporated into the risk-assessment paradigm.

PUBHLTH 173. Health and Global Environmental Change . 4 Units.
Overview of scientific underpinnings of global environmental change and human health consequences. Provides an understanding of the fundamental dependency of human health on global environmental integrity. Encourages disciplinary cross-fertilization through interaction of students in environmental, health, and policy sciences.

Prerequisite: One upper-division course in environmental science, public health, environmental policy, and/or environmental management.

Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 175. Environmental Modeling and Risk Assessment. 4 Units.
Surveys the general principles, basic mathematical methods, and practices of environmental modeling and human health risk assessment. Topics include advection-dispersion models, risk management, and risk perception. Students conduct an original risk assessment as a final group project.

Prerequisite: MATH 2A and STATS 7.

Concurrent with PUBHLTH 275 and TOX 275.

PUBHLTH 176. War and Public Health. 4 Units.
Explores how war impacts public health both globally and domestically in the United States. Focus on the link between war and the burden that it ultimately places on physical, mental, environmental, and societal health as well as on health systems.

PUBHLTH 179. Special Topics in Environmental and Global Health Science. 4 Units.
Studies in selected areas of environmental and global health sciences. Topics addressed vary each quarter.

Prerequisite: PUBHLTH 1.

Repeatability: Unlimited as topics vary.

PUBHLTH 180. Epidemiology of Infectious Disease. 4 Units.
Examines the distribution of infectious disease and the health and disease risk among human populations. Introduces basic methods for infectious disease epidemiology. Case studies of important diseases, including HIV and malaria, are conducted.

Prerequisite: PUBHLTH 1.

PUBHLTH 189. Special Topics in Infectious Diseases. 4 Units.
Studies in selected areas of infectious diseases. Topics addressed vary each quarter.

Prerequisite: PUBHLTH 1.

Repeatability: Unlimited as topics vary.

Restriction: Public Health Sciences and Public Health Policy majors have first consideration for enrollment.

PUBHLTH 190. Geographical Information Systems for Public Health. 4 Units.
Provides a broad introduction to the use of Geographic Information Systems software to carry out projects for visualizing and analyzing spatial data to address significant issues of health care and policy-planning.

Overlaps with PUBHLTH 166, CRM/LAW C148.

Restriction: Authorization required.

PUBHLTH 191A. Seminar: Advances and Challenges in Public Health. 2 Units.
Forum for exploring recent advances and challenges in all disciplines of public health research and practice. Features case studies exemplifying the integration of core competencies with cross-cutting interdisciplinary themes of public health.

Grading Option: Pass/no pass only.

Concurrent with PUBHLTH 291A.

PUBHLTH 191B. Seminar: Advances and Challenges in Public Health. 2 Units.
Forum for exploring recent advances and challenges in all disciplines of public health research and practice. Features case studies exemplifying the integration of core competencies with cross-cutting interdisciplinary themes of public health.

Grading Option: Pass/no pass only.

Concurrent with PUBHLTH 291B.

PUBHLTH 191C. Seminar: Advances and Challenges in Public Health. 2 Units.
Forum for exploring recent advances and challenges in all disciplines of public health research and practice. Features case studies exemplifying the integration of core competencies with cross-cutting interdisciplinary themes of public health.

Grading Option: Pass/no pass only.

Concurrent with PUBHLTH 291C.
PUBHLTH H192A. Public Health Honors Seminar and Thesis I. 4 Units.
Provides an opportunity for selected students to pursue advanced work in research and earn Public Health Honors. Students will conduct their honors research project with faculty through lectures, guest speakers, creating timelines and assignments.

Corequisite: PUBHLTH 199.
Repeatability: May be repeated for credit unlimited times.
Restriction: Public Health Policy and Public Health Sciences graduate students only.

PUBHLTH H192B. Public Health Honors Seminar and Thesis II. 1 Unit.
Students undertake research and summarize results while preparing research grants and practicing oral presentations.

Corequisite: PUBHLTH 199.
Prerequisite: PUBHLTH H192A.
Repeatability: May be repeated for credit unlimited times.
Restriction: Public Health Policy and Public Health Sciences graduate students only.

PUBHLTH H192C. Public Health Honors Seminar and Thesis III. 1 Unit.
Students complete the final writeup of their research project, present their research at conferences/seminars, and write an academic manuscript.

Corequisite: PUBHLTH 199.
Prerequisite: PUBHLTH H192B.
Repeatability: May be repeated for credit unlimited times.
Restriction: Public Health Policy and Public Health Sciences graduate students only.

PUBHLTH 193. Introduction to Ethics and Responsible Conduct of Research in Public Health. 4 Units.
Introduces students to ethical issues in global health. Satisfies requirements for training in responsible conduct of research. Includes guidelines for federal and international codes, administrative review and approval, conflict of interest, and privacy and safety of research participants.

Restriction: Public Health Sciences and Public Health Policy majors only. Upper-division students only.

PUBHLTH 194A. Clinical and Translational Research Preparatory I. 4 Units.
Provides training for students with an interest in clinical and translational research in the health care setting. Cultivates skills for study design, research literature review, ethics, responsible conduct of research, and cultural competence while emphasizing professionalism and personal responsibility.

Prerequisite: Satisfactory completion of the Lower-Division Writing requirement.
Restriction: Upper-division students only.

PUBHLTH 194B. Clinical and Translational Research Preparatory II. 1-4 Units.
Provides opportunities for students to participate in clinical and translational research through rotations in at least two health care settings. Builds on preparation through the first course (194A) in the sequence to support exploration of various research topics.

Prerequisite: PUBHLTH 194A. Satisfactory completion of the Lower-Division Writing requirement.
Repeatability: May be repeated for credit unlimited times.
Restriction: Upper-division students only.

PUBHLTH 194C. Clinical and Translational Research Preparatory III. 4 Units.
Provides opportunities for students to work closely in a particular clinical and translational research setting. Builds on preparation through the didactic instruction presented in first course of the sequence (194A) to support deeper engagement on a particular research topic.

Prerequisite: PUBHLTH 194A. Satisfactory completion of the Lower-Division Writing requirement.
Repeatability: May be repeated for credit unlimited times.
Restriction: Upper-division students only.

PUBHLTH 195. Public Health Practicum. 8 Units.
Experiential learning for public health majors at agencies and/or laboratories dedicated to public health practice.

Prerequisite: PUBHLTH 1 and PUBHLTH 2
Restriction: Upper division only and Prerequisite required

PUBHLTH 195W. Public Health Practicum and Culminating Experience. 8 Units.
Provides direct opportunities for Public Health majors to observe and participate in public health activities and/or research; and to cultivate skills for verbal and written communication of contemporary public health topics for an integrative culminating experience.

Prerequisite: PUBHLTH 1 and PUBHLTH 2. Satisfactory completion of the Lower-Division Writing requirement.
Restriction: Upper-division students only. Public Health Sciences and Public Health Policy majors only.

PUBHLTH 197. Field Studies in Public Health. 2-12 Units.
For students who may either accompany faculty members on field trips or engage in post-practicum work at a field agency.

Prerequisite: PUBHLTH 1 and PUBHLTH 2.
Grading Option: Pass/no pass only.
Repeatability: May be taken for credit for 12 units.
PUBHLTH 198. Directed Studies. 1-4 Units.
Student participation in a series of research-related activities performed in an individual or small-group setting under the guidance of a faculty advisor.
Prerequisite: PUBHLTH 1.
Repeatability: May be repeated for credit unlimited times.

PUBHLTH 199. Undergraduate Research. 1-4 Units.
Original research with Public Health faculty. Attendance at regular research group meetings is also generally expected, and a quarterly written report is required. Strongly recommended for students considering research careers and/or graduate degree programs.
Repeatability: May be repeated for credit unlimited times.
Restriction: Upper-division students only.

PUBHLTH 200. Foundations of Public Health. 4 Units.
Presents the overarching framework, principles, and core responsibilities of public health research and practice from a multidisciplinary perspective. Provides necessary foundation for further studies toward advanced cross-cutting approaches essential for public health practice.
Restriction: Graduate students only.

PUBHLTH 203. Epidemiology. 4 Units.
Presents descriptive and experimental approaches to the recognition of the causal association of disease in the general population, as these approaches apply to populations using different student designs and models free from the literature.
Same as EPIDEM 203.
Restriction: Graduate students only.

PUBHLTH 204. Biostatistics. 4 Units.
Designed to help students develop an appreciation for statistician’s view of the research process, emphasizing biomedical research. Instills an understanding of how statistical models are used to yield insights about data that form evidence-based understanding of the world around us.
Same as EPIDEM 204.
Restriction: Graduate students only.

PUBHLTH 205. Advanced Epidemiologic Methods. 4 Units.
Advanced topics in the design and statistical analysis of epidemiologic studies. Topics include simulation methods, counter-matching and multiphase study designs, missing data, and Bayesian analysis. Published simulation studies are discussed and replicated using the R software package.
Prerequisite: PUBHLTH 101B or STATS 111 or STATS 211.
Same as EPIDEM 217.
Concurrent with PUBHLTH 119.

PUBHLTH 206. Graduate Epidemiology in Public Health. 4 Units.
Presents descriptive and experimental approaches to the recognition of the causal association of disease in the general populations, as these approaches apply to populations using different student designs and models from the literature.
Restriction: Graduate students only.

PUBHLTH 207. Public Health Statistics. 4 Units.
Surveys statistical methods for public health. Topics include descriptive statistics, probability models, likelihood functions, estimation, and hypothesis testing for categorical and continuous data. Student learn to use statistical software to perform epidemiologic data analysis.
Prerequisite: PUBHLTH 203 and MATH 2A.
Restriction: Graduate students only.

PUBHLTH 208. Advances in Social Epidemiology. 4 Units.
Advances understanding of social distribution and social determinants of disease through multiple risk factor models and mechanisms that emphasize developmental and socio-environmental risk factors on mental and physical health across the life span.
Restriction: Graduate students only.

PUBHLTH 209. Methods of Demographic Analysis. 4 Units.
Introduces basic demographic methods used in social science and public health research. Topics include sources and limitations of demographic data; components of population growth; measures of nuptiality, fertility, mortality, and population mobility projection methods; and demographic models.
Same as SOCIOL 226A.
Restriction: Graduate students only.

PUBHLTH 210. Cancer Epidemic and Prevention. 4 Units.
Explores the global burden of various cancers, including geographical and societal distribution. Includes causes, diagnosis, and interactions among genetic, environmental, and behavioral risk factors. Covers major cancer preventative strategies.
Prerequisite: PUBHLTH 203.
Restriction: Graduate students only.

PUBHLTH 211. Public Health Genomics. 4 Units.
Explores the role of genetic predisposition in the occurrence of the human diseases with emphasis on population screening and prevention of disease. Includes interactions between genetic factors and environmental situations, policies, and ethics of population genomics.
Prerequisite: PUBHLTH 203.
Restriction: Graduate students only.
PUBHLTH 212. Intermediate Epidemiology. 4 Units.
Learn to design and conduct epidemiologic studies using common designs. Determine why bias and measurement error arise in observational studies, and how they influence effect estimates. Perform and interpret epidemiologic data analyses using statistical software.
Corequisite: PUBHLTH 207.
Prerequisite: PUBHLTH 203.
Restriction: Graduate students only.

PUBHLTH 213. International Epidemiology. 4 Units.
Explores methodological approaches in the literature on international trials and requires formulation of proposals to answer public health questions of interest in a developing country setting. Students develop case study aims, ideal teams, and budget in an international context.
Restriction: Graduate students only.

PUBHLTH 214. Surveillance Systems. 4 Units.
Surveillance as a fundamental element of the practice of public health is examined in terms of the application and evaluation of monitoring systems. Topics include surveillance of infectious and chronic diseases, environmental constituents, and other indicators of population health.
Prerequisite: PUBHLTH 206.
Restriction: Graduate students only.

PUBHLTH 219. Special Topics in Biostatistics, Epidemiology, and Health Informatics. 4 Units.
Current research in biostatistics, epidemiology, and health informatics. Topics vary from quarter to quarter.
Repeatability: Unlimited as topics vary.
Restriction: Graduate students only.

PUBHLTH 220. Public Health Cost-Effectiveness Analysis. 4 Units.
Examines using cost-effectiveness information to allocate limited resources to maximize health benefits to a population; defining and measuring cost, survival and health-related quality of life; and how to calculate cost-effectiveness using decision trees and Markov simulation models.
Same as PSY BEH P228, PP&D 226.
Restriction: Graduate students only.

PUBHLTH 221. Health Promotion and Planning. 4 Units.
Focuses on health and health care in the United States, but discussion of global health issues and/or international comparisons will be made whenever possible. Considers both the social and economic aspects of health and disease.
Same as PP&D 241.
Restriction: Graduate students only.

PUBHLTH 222. Health Policy and Management. 4 Units.
Multidisciplinary inquiry into theory and practice concerned with delivery, quantity, costs of health care for individuals and populations. Explores managerial and policy concerns regarding structure, process, outcomes of health services including the costs, financing, organization, outcomes, and accessibility of care.
Same as PP&D 243.
Restriction: Graduate students only.

PUBHLTH 223. Risk Communication. 4 Units.
Examines theory and research related to the communication of scientific information in risk communication contexts, risk perceptions, and behavior as related to decision-making under risk.
Restriction: Graduate students only.

PUBHLTH 224. Public Health Leadership. 4 Units.
Integrates theory and practice of public health leadership through lectures on global health leadership, case studies on leadership issues, and course assignments that include assessment of leadership traits, and development of individual career mission, vision, and values statements.
Restriction: Graduate students only.

PUBHLTH 239. Special Topics in Health Policy and Management. 4 Units.
Current research in health policy and management. Topics vary from quarter to quarter.
Repeatability: May be repeated for credit unlimited times.
Restriction: Graduate students only.

PUBHLTH 240. Topics in Environmental Health Promotion and Education. 4 Units.
Focuses on design of intervention strategies dependent on the environmental agent, exposure to assessment, SES, health effects, stakeholders, and support base. Programmatic design includes media selection, communication/education, and pre/post surveys. Analysis of transborder and local environmental health promotion programs.
Restriction: Graduate students only.

PUBHLTH 241. Environmental Policy and Global Sustainability. 4 Units.
Seminar organized around four transcendent questions: does the world value sustainability, what challenges must be met to move toward it, what are the roots of inequality, and is capitalism compatible with sustainability.
Same as SOCECOL 250.
Restriction: Graduate students only.

PUBHLTH 242. Theories of Health Communication. 4 Units.
Explores the concepts, constructs, and theories of communication in health and risk contexts. Examines interpersonal, family, organizational, and mediated communicative processes about health care and conditions from a global perspective.
Restriction: Graduate students only.
PUBHLTH 244. Health Behavior Theory. 4 Units.
Introduces the field of Health Behavior and then segues into major theoretical perspectives. Focus on health behavior change from the vantage point of individual health behavior and theoretical abstraction. Explores how to relate theory to behavior-change intervention programs.

Restriction: Graduate students only.

PUBHLTH 245. Health Promotion Planning. 4 Units.
Introduces strategic planning integral to intervention planning in public health practice and research, emphasizing the fundamental domains of social and behavioral health science and practices. Students develop an intervention plan for a specific health problem, health behavior, and target population.

Restriction: Graduate students only.

PUBHLTH 246. Social Research Methods. 4 Units.
An interactive graduate seminar covering topics related to the research process and study design. Begins with conceptualizing research questions, hypotheses, and then turns to topics in measurement and concludes with experimental, quasi-experimental, and observational study designs.

Restriction: Graduate students only.

PUBHLTH 247. Program Evaluation. 4 Units.
Introduces methods, tools, and procedures for systematic investigation of the effectiveness of programs in health and social services for disease intervention, prevention, and health promotion. Includes development of program evaluation plans, logic models, contextual frameworks, study designs, and data analyses.

Restriction: Graduate students only.

PUBHLTH 248. Fundamentals of Maternal and Child Health - Programs, Problems, and Policy. 4 Units.
Overview of issues facing women, children, and families from a public health perspective. Discusses role of socio-economic, political, biological, environmental factors on population health. Studies historical foundations and current factors impacting Maternal Child Health programs and legislation in the US.

Restriction: Graduate students only.

PUBHLTH 249. Special Topics in Social and Behavioral Health Sciences. 4 Units.
Current research in Social and Behavioral Health Sciences. Topics vary from quarter to quarter.

Repeatability: Unlimited as topics vary.

Restriction: Graduate students only.

PUBHLTH 261. Environmental Hydrology. 4 Units.
Provides an overview of the occurrence, distribution, and movement of water in the environment. Quantitative methods are introduced for analyzing hydrologic processes. Human impacts on water distribution and quality are considered.

Restriction: Graduate students only.

PUBHLTH 262. Earthquakes and Seismic Hazard. 4 Units.
Provides an overview of earthquakes and introduction to seismic hazard. Topics include characteristics and effects of earthquakes, sources of earthquakes, seismic hazard assessment, introduction to earthquake loss estimation and mitigation. California examples are emphasized.

Restriction: Graduate students only.

PUBHLTH 263. Seminar in Paleoseismology. 4 Units.
Provides an introduction to paleoseismology and its applications. Topics include data collection methods, data analysis, earthquakes in different tectonic environments, and applications to seismic hazard assessment and fault characterization.

Restriction: Graduate students only.

PUBHLTH 264. Introduction to Environmental Health Science. 4 Units.
Convergence of agents (chemical, physical, biological or psychosocial) in environment can emerge as diseases influenced bu social, political, and economic factors allowing them to become rooted in society. How these agents from various spheres come together and impact human health.

Same as EPIDEM 264, TOX 264.

Restriction: Graduate students only.

PUBHLTH 265. Advanced Environmental Health Science. 4 Units.
Explores the complex relationships among exposure processes and adverse health effects of environmental toxins focusing on specific chemicals, sources, transport media, exposure pathways, and human behaviors. Techniques of environmental sampling for exposure assessment are discussed.

Same as EPIDEM 265.

Restriction: Graduate students only.

PUBHLTH 269. Air Pollution, Climate, and Health. 4 Units.
Emission of air pollutants into the atmosphere, physical and meteorological processes that affect transport, and influence on global warming. Concepts of how and where people are most exposed, and how exposures and health effects differ in developed and developing regions.

Same as EPIDEM 269, TOX 269.

PUBHLTH 270. Human Exposure to Environmental Contaminants. 4 Units.
Introduces founders of conceptual thought that environmental contaminants can impact health. Theory and principles of exposure assessment, the continuum from emissions of a containment into the environment to evidence of health effects in a population.

Same as EPIDEM 270, TOX 270.
PUBHLTH 271. Health Impacts of Environmental Change. 4 Units.
Seminar on health impacts of environmental change at various scales of analysis. Uses numerical models such as “MIASMA” and “TARGETS” to analyze alternative outcomes of environmental-change scenarios. Presentations from experts are featured.
Restriction: Graduate students only.

PUBHLTH 272. Environmental Health and Quality. 4 Units.
Concepts and principles of environmental health. Focuses on industrial hygiene, water and air quality, noise pollution, and environmental carcinogens. Discusses theory and implementation practices through review of legislative measures and enforcement procedures. Examines social and biological interactions surrounding each topic.
Restriction: Graduate students only.

PUBHLTH 273. Environmental Health, Science, and Policy. 2 Units.
Topics relevant to the field of environmental health, science, and policy are covered in depth. Included are: hazardous and biological pollutants in soil, water, air; remediation technologies; water conflicts; and regulations pertaining to contaminants.
Restriction: Graduate students only.

PUBHLTH 275. Environmental Modeling and Risk Management. 4 Units.
Surveys the general principles, basic mathematical methods, and practices of environmental modeling and human health risk assessment. Topics include advection-dispersion models, risk management, and risk perception. Students conduct an original risk assessment as a final group project.
Prerequisite: MATH 2A and STATS 7.
Same as TOX 275.
Restriction: Graduate students only.
Concurrent with PUBHLTH 175.

PUBHLTH 276. Toxic Chemicals in Environment. 4 Units.
Industrial ecology of toxicants and their impacts on environmental quality and human health. Explores theoretical basis of toxicity thresholds and regulatory issues. Uses classic and contemporary research articles to understand the legacy of traditional toxicants, and to identify emerging threats.
Same as EPIDEM 244.
Restriction: Graduate students only.

PUBHLTH 277A. Target Organ Toxicology I. 6 Units.
Analysis of responses occurring in 12 organ systems of humans exposed to environmental chemicals at toxic levels; distinctive cellular and tissue structure and physiological function; toxicological responses discussed in terms of phenomena, mechanisms of action, and methods of study.
Same as TOX 206A.

PUBHLTH 277B. Target Organ Toxicology II. 6 Units.
Analysis of responses occurring in 12 organ systems of humans exposed to environmental chemicals at toxic levels; distinctive cellular and tissue structure and physiological function; toxicological responses discussed in terms of phenomena, mechanisms of action, and methods of study.
Prerequisite: PUBHLTH 277A or TOX 206A.
Same as TOX 206B.

PUBHLTH 278. Industrial Toxicology. 4 Units.
Analysis of responsibilities toxicologists have in industry, including product safety generating material safety, data sheets, animal testing, ecotoxicological testing, risk/hazard communication, and assisting industrial hygienists and occupational physicians; emphasis on interdisciplinary nature of industrial toxicology and communication skills.
Prerequisite: (PUBHLTH 277A or TOX 206A) and (PUBHLTH 277B or TOX 206B).
Same as TOX 220.

PUBHLTH 279. Special Topics in Environmental & Occupational Health. 4 Units.
Current research in environmental and occupational health. Topics vary from quarter to quarter.
Repeatability: May be repeated for credit unlimited times.
Restriction: Grad students only.

PUBHLTH 280. Global Burden of Disease. 4 Units.
Introduces composite measures of disease burden, including Disability Adjusted Life Years and their use in prioritizing disease burden at local, regional, and global levels. Focuses on WHO’s landmark assessments and introduces DISMOD software for specific analyses.
Restriction: Graduate students only.

PUBHLTH 281. Infectious Disease Epidemiology. 4 Units.
Geographical distribution of infectious diseases and the health and disease risk in diverse human populations. Introduces basic methods for infectious disease epidemiology and case studies of important diseases. Includes surveillance, outbreak investigation, emerging pathogens, traditional and molecular epidemiology.
Restriction: Graduate students only.

PUBHLTH 282. Advances in Global Health. 4 Units.
Critical appraisal of advances in taming the global burden of disease. The underlying sectoral determinates of health, and health systems development through multiple frames, including economics, infectious and chronic disease, nutrition, injury, culture, social/political organization, humanitarian emergencies, and international organizations.
Restriction: Graduate students only.

PUBHLTH 283. Advances in Geographical Information Systems for Public Health. 4 Units.
Geographic information systems software knowledge. Explodes recent advances in the application of GIS to public health issues at all scales of analysis.
Restriction: Grad students only and Authorization required
PUBHLTH 284. Graduate Field Studies. 2-12 Units.
Field studies with Public Health faculty.
Grading Option: Satisfactory/unsatisfactory only.
Repeatability: May be taken for credit for 12 units.
Restriction: Graduate students only.

PUBHLTH 285. Global Health Law and Diplomacy . 4 Units.
Extends theory and practice of law and diplomacy from the scope of
health to trade, intellectual property, national security, human rights,
and environmental protection. Focuses on negotiations that shape and
manage the global policy environment for health.
Restriction: Graduate students only.

PUBHLTH 287. Qualitative Research Methods in Public Health. 4
Units.
General introduction to qualitative research methods for investigating
public health questions at various scales from community level to global
populations. Emphasizes systematic approaches to the collection,
analysis, interpretation of qualitative data.
Restriction: Graduate students only.

PUBHLTH 288. Research Proposal Writing in Global Health. 4 Units.
Overview of financial support for research in global health and disease
prevention. Collaborative agreements, guidelines for proposal writing,
team building, budgeting, peer-review process, and transitioning from
proposal to research project implementation.
Restriction: Graduate students only.

PUBHLTH 289. Special Topics in Global Health and Disease
Prevention. 4 Units.
Current research in global health and disease prevention. Topics vary from
quarter to quarter.
Repeatability: Unlimited as topics vary.
Restriction: Graduate students only.

PUBHLTH 290. Special Topics in Public Health. 4 Units.
Studies in selected areas of public health. Topics addressed vary each
quarter.
Repeatability: Unlimited as topics vary.
Restriction: Graduate students only.

2 Units.
Forum for exploring recent advances and challenges in all disciplines of
public health research and practice. Features case studies exemplifying
the integration of core competencies with cross-cutting interdisciplinary
themes of public health.
Grading Option: Satisfactory/unsatisfactory only.
Restriction: Graduate students only.
Concurrent with PUBHLTH 191A.

2 Units.
Forum for exploring recent advances and challenges in all disciplines of
public health research and practice. Features case studies exemplifying
the integration of core competencies with cross-cutting interdisciplinary
themes of public health.
Grading Option: Satisfactory/unsatisfactory only.
Restriction: Graduate students only.
Concurrent with PUBHLTH 191B.

2 Units.
Forum for exploring recent advances and challenges in all disciplines of
public health research and practice. Features case studies exemplifying
the integration of core competencies with cross-cutting interdisciplinary
themes of public health.
Grading Option: Satisfactory/unsatisfactory only.
Restriction: Graduate students only.
Concurrent with PUBHLTH 191C.

PUBHLTH 292. Ethics and Responsible Conduct of Research in
Public Health. 4 Units.
Issues of scientific integrity and satisfies the requirements for training
in public health ethics. Includes guidelines for responsible conduct
of research, federal and international codes, administrative review
and approval, conflict of interest, and privacy and safety of research
participants.
Restriction: Graduate students only.

PUBHLTH 293. Foundations of Clinical and Translational Science. 4
Units.
Introduces rationale and imperative for clinical translational science and
various approaches being developed to speed-up discoveries and their
transformation into health care practices. Compares and contrasts current
impediments to clinical research with the potential and transformative
power of translational science.
Restriction: Graduate students only.

PUBHLTH 294. Research Communication in Public Health. 4 Units.
Strategies for effective writing and oral presentation of research
characteristics and results to various audiences. Includes exercises in
writing for the public, for scholarly journals, and at conferences.
Restriction: Graduate students only.

PUBHLTH 295. Graduate Practicum and Culminating Experience in
Public Health. 8 Units.
Provides opportunities for hands-on experience for graduate students at
agencies or organizations engaged in public health practice. Students
are matched with placement sites based on academic preparation
and students’ career goals. The practicum report is integrated into the
culminating experience.
Prerequisite: PUBHLTH 200 and PUBHLTH 291.
Grading Option: Satisfactory/unsatisfactory only.
Restriction: Master of Public Health students only.
PUBHLTH 296. Doctoral Dissertation Research and Writing. 1-12 Units.
Dissertation research with Public Health faculty.

Prerequisite: Advancement to candidacy.

Grading Option: Satisfactory/unsatisfactory only.

Repeatability: May be taken for credit for 12 units.

Restriction: Graduate students only.

PUBHLTH 297. Research Design. 4 Units.
Provides training in research design and methods. Students learn how to evaluate the strength of research findings based on the methods used by a researcher and learn to use lessons from the course to develop a research proposal.

Same as PP&D 297.

Restriction: Graduate students only.

PUBHLTH 298. Directed Studies in Public Health. 2-4 Units.
Directed study with Public Health faculty.

Repeatability: May be repeated for credit unlimited times.

Restriction: Graduate students only.

PUBHLTH 299. Independent Study in Public Health. 2-8 Units.
Independent research with Public Health faculty.

Repeatability: May be repeated for credit unlimited times.

Restriction: Graduate students only.

PUBHLTH 399. University Teaching. 2-4 Units.
Limited to teaching assistants.

Grading Option: Satisfactory/unsatisfactory only.

Repeatability: May be repeated for credit unlimited times.