

University of California, Berkeley

# **Public Health Undergraduate Major**

**Student Handbook**

2016-2017

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## I. Introduction: The Public Health Undergraduate Major

The Public Health major is a relatively recent addition to the University of California, Berkeley. The major began in 2003, and the first class graduated in 2004. The faculty and staff in the Public Health department are dedicated to the success of the program, which is popular among the student body.

Public health seeks to improve human health through the development and application of knowledge that prevents disease, protects the public from harm, and promotes health throughout the state, the nation, and the world.

Under the public health major, undergraduates will develop and apply knowledge from multiple disciplines for the promotion and protection of the health of the human population, giving due consideration to principles of human rights and cultural perspectives that abound in our multicultural country and world.

The undergraduate major in public health is offered through the College of Letters and Science.

## II. Pressure on the Major

Public Health is a capped major with limited capacity and heavy enrollment pressures. The department receives applications from many undergraduates who are passionate about Public Health, but due to our cap, even very qualified students may not be accepted into our major. Therefore, it is critical that students interested in the Public Health major also be prepared for a back-up major in case they are not selected. **All admissions decisions are final and may not be appealed.**

The application procedure, in place since May 2011, includes both a review of an applicant's academic preparation (prerequisite coursework and GPA) and writing samples ("Statement of Purpose" and "Personal History Statement"). This gives the applicant the opportunity to demonstrate their experience relevant to Public Health (including volunteering), their long-term plans for what they will do with a degree in Public Health, and also to demonstrate their writing and communication skills. Applications are accepted at the end of every semester, including summer; <http://sph.berkeley.edu/students/undergrad/index.php> has specific dates.

### III. Public Health Faculty

#### a. Undergraduate Management Committee

1. **Jeff Oxendine (Co-Chair)**

- **Research Interests:** Health workforce planning and development; health workforce diversity; empowering students to achieve their health career potential; health IT implementation and workforce; cultural and linguistic competence; change management; healthcare and public health leadership; health disparities elimination.

2. **Lisa Barcellos (Co-Chair)**

- **Research Interests:** Genetic epidemiology of complex diseases; identification of genetic and environmental risk factors for multiple sclerosis; genetic variation in the major histocompatibility complex (MHC) and autoimmune disease; maternal-child histocompatibility and risk of autoimmune disease; epigenetic contributions to autoimmune disease risk; application of causal inference methods to autoimmune disease studies.

3. **Bill Satariano**

- **Research Interests:** Investigation of functional disability in older women with breast cancer; study of exercise capacity and physical performance in older populations.

4. **Maureen Lahiff**

- **Research Interests:** Multivariate methods; Time series and longitudinal data; Acculturation and health.

5. **Charlotte Smith**

- **Research Interests:** Impact assessment and evaluation of rural water systems and public health programs in rural Central American communities; microbial ecology of waterborne pathogens; bacterial endosymbionts of free-living protozoa

6. **Robin Flagg**

- **Research Interests:** Governor decision-making under the ACA: Expansion of Medicaid and State politics

7. **Timothy Brown**

- **Research Interests:** Public health systems and services research; social capital and health; health care labor markets; behavioral health; oral health; high cost biomedical innovation

8. **Kristine Madsen**

- **Research Interests:** Pediatric obesity; health disparities; policy approaches to reducing cardiovascular disease; physical activity; school health; community-based participatory research

9. **Sarah Gamble**

- **Research Interests:** Project Coordinator for Berkeley Builds Capacity, a SAMHSA funded grant to reduce HIV transmission and related substance abuse among high risk youth in the UC Berkeley population, and among their peers in the local community.

#### b. Some Additional Teaching Faculty

**Professor Tomas Aragon**

- **Research Interests:** Epidemiology & control of infectious diseases;

**Professor Malcolm Potts**

- **Research Interests:** Mobilization of resources for international family planning; reducing nonevidence-based barriers preventing access to contraception and safe abortion; reducing maternal deaths, especially through the use of misoprostol to control postpartum hemorrhage; biological origins of human warfare; AIDS prevention strategies, resources, and the role of male circumcision.

**Professor Arthur Reingold**

- **Research Interests:** Opportunistic infections in AIDS patients; interrelationships between tuberculosis and AIDS in developing countries; emerging infections and vaccine preventable diseases in the US and developing countries.

**c. Honors Research Affiliated Faculty**

In addition to the faculty listed above, the following professors have previously worked with students on Honors Thesis Projects: Amani Nuru-Jeter, Katherine Hammond, Alan Steinbach, Sylvia Guendelman, Winston Tseng and Jack Colford.

For more information about honors research projects, please refer to section X, on page 13.

**IV. Course Requirements: Important Information**

- a. As of May 2015, the biology prerequisite coursework has changed**  
(see below and/or the undergrad site at [sph.berkeley.edu](http://sph.berkeley.edu) for the current requirements).
- b. Letter Grade or Pass/No Pass?**  
**All** course work for the Public Health major is to be taken for a letter grade (with the exception of possible electives PB HLTH 116 and PB HLTH 104 A/B, which are Pass/No Pass only).

**V. Course Requirements for the Public Health Major**

- a. University of California Requirements**
  - Subject A, American History and Institutions
- b. University of California Requirements**
  - American Cultures
  - Reading/Composition
  - Quantitative Reasoning
  - Breadth requirements

### c. Public Health Lower Division Prerequisites

Prerequisite courses must be completed with a letter grade of C- or better to be counted toward the major. Students must have a minimum of a 2.0 GPA in their prerequisite coursework, though in the past students with a prerequisite GPA below 2.5 have been less likely to be admitted. *Students are not eligible to apply to the major until they have completed all of their prerequisites.*

#### 1. Biological Science Prerequisite

Complete **at least 7 units** of coursework from the following list:

- **BIOLOGY 1A:** General Biology (3)
- **BIOLOGY 1B:** General Biology (4)
- **MCELLBI 32:** Introduction to Human Physiology (3)
- **MCELLBI 50:** Immune System & Disease (3)
- **MCELLBI 55:** Plagues & Pandemics (3)
- **MCELLBI C61/PSYCH C61:** Brain, Mind, & Behavior (3)
- **NUSCTX 10:** Introduction to Human Nutrition (3).

#### 2. Mathematics Prerequisite

A minimum of **two** courses or equivalent:

- **MATH 1A:** Calculus (4)
- **MATH 1B:** Calculus (4)
- **MATH 10A:** Methods of Mathematics (4)
- **MATH 10B:** Methods of Mathematics (4)
- **MATH 16A:** Calculus (3)
- **MATH 16B :** Calculus (3)
- **MATH 32:** Pre-calculus (4)

#### 3. Social Sciences Requirements

**Three** courses in at least two areas:

##### Psychology

- **PSYCH 2:** Principles of Psychology (3)  
(**PSYCH 1** is also acceptable *but* not both)

##### Sociology

- **SOCIOL 1 or 3 or 3AC:** Introduction/Principles of Sociology (4)
- **SOCIOL 5:** Evaluation of Evidence (4)

##### Economics

- **ECON 1, 2, or C3:** Introduction to Economics (4)

##### Anthropology

- **ANTHRO 3 or 3AC:** Introduction to Social and Cultural Anthropology (4)

##### Political Science

- **POL SCI 2:** Introduction to Comparative Politics (4)
- **POL SCI 4:** Introduction to Political Theory (4)

The undergraduate Public Health program accepts Advanced Placement (AP) units for the Social Sciences and Math Prerequisites. AP scores of 3, 4, or 5 are acceptable for the following courses:

- Psychology for Psych 1 or Psych 2
- Economics (both micro and macro) for Econ 1, 2, or 3
- Government for POL SCI 2 or 4
- Math
  - A minimum score of a 3 on the Math AB or BC exam is equivalent to Math 1A.
  - A score of 5 on the BC Math is equivalent to Math 1A and 1B

#### **d. Public Health Upper Division Requirements**

***For students graduating in 2017 and beyond:***

1. Five required core courses: PB HLTH 142, 150A, 150B, 150D, 150E
2. Capstone requirement
3. 10 elective units (see list below)

(Students **graduating in Summer 2016 or Fall 2016** have these upper division requirements:

1. Two required core classes (PB HLTH 142 and 150A) plus **two** additional core classes chosen from four options (PB HLTH 150B, 150D, 150E, 162A).
2. 12 elective units (see list below)

Starting in Spring 2017, PB HLTH 162A will be moved to the electives list and will no longer fulfill a core requirement. There is no capstone requirement for students graduating in 2016.)

#### **e. Core Classes**

- **PB HLTH 142:** Intro to Probability and Statistics in Public Health (4)
  - (Alternatively, **PB HLTH 141** can be used to meet this requirement. STAT 131A may only be used as an alternative if it was completed Spring 2016 or earlier.)
- **PB HLTH 150A:** Introduction to Epidemiology (4)
- **PB HLTH 150B:** Introduction to Environmental Health (3)
- **PB HLTH 150D:** Introduction to Health Policy & Management (3)
- **PB HLTH 150E:** Introduction to Community Health and Human Development (3)

#### **f. Capstone Requirement**

The Public Health major capstone requirement may be satisfied in one of two ways. Students may enroll in the 3-unit, letter-graded capstone course during their final spring semester **OR** they may complete a 2-semester honors thesis in Public Health during the fall and spring of their final year (see section X on page 13 for additional details on the honors thesis).

The capstone course is designed to review, integrate, and apply concepts and methods presented in the Public Health Major Core Courses (PB HLTH 150A, B, D, and E). The course will enable students to explore, individually and as a member of a team, innovative solutions to emerging real-world public health challenges related to community health, health policy, epidemiology and

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environmental health. Students will also strengthen valuable skills that will enhance preparation for post-graduation public health practice, research or education. Each student will develop a plan for the next steps in their health career plans and a portfolio to highlight their qualifications, experience and accomplishments.

The capstone course is currently only offered in the spring.

#### **g. Electives**

Ten units of elective courses are required for graduation in 2017 and beyond (12 units for graduation in 2016). Pre-approved coursework from Education Abroad Programs may be used towards electives.

Any class categorized as Public Health may count as an elective unit towards the Public Health major, except for DeCal classes and independent research. Other courses not expressly listed below may be considered pending one-time approval by the Undergraduate Management Committee. Please discuss with the Academic Advisor.

Undergraduates may also be permitted to take graduate classes pending instructor approval and pre-requirement completion. Please discuss with the instructor prior to signing up for the class on CalCentral.

Please refer to the Schedule of Classes on CalCentral and <http://guide.berkeley.edu/courses/> for more details about specific courses.

#### **1) Biostatistics**

- **DEMOG 110:** Introduction to Population Analysis (3)
- **MATH 53:** Multivariable Calculus (4)
- **MATH 54:** Linear Algebra and Differential Equations (4)
- **PB HLTH 145:** Statistical Analysis of Continuous-Outcome Data (4)
- **STAT 133:** Concepts in Computing with Data (3)
- **STAT 134:** Concepts of Probability (3)
- **STAT 135:** Concepts of Statistics (4)
- **STAT 150:** Stochastic Processes (3)
- **STAT 151A/B:** Linear Modeling: Theory and Application (4/4)
- **STAT 152:** Introduction to Time Series (4)

#### **2) Infectious Diseases**

- **ESPM C138/MCELLBI C114/PLANTBI C114:** Introduction to Comparative Virology (4)
- **ESPM 146:** Medical/Veterinary Entomology (3)
- **INTEGBI C110L/PLANTBI C110L:** Biology of Fungi with Laboratory (4)
- **INTEGBI 131:** General Anatomy (3)
- **INTEGBI 132:** Survey of Human Physiology (4)
- **INTEGBI 137:** General Endocrinology (4)
- **MCELLBI C100A/CHEM C130:** Biophysical Chemistry (4)
- **MCELLBI 102:** Principles of Biochemistry and Molecular Biology (4)
- **MCELLBI 130:** Cell Biology (4)
- **MCELLBI 140:** General Genetics (4)
- **MCELLBI 150:** Molecular Immunology (4)



- **MCELLBI 160:** Introduction to Neurobiology (4)
- **PB HLTH C102/MCELLBI C103/PLANTBI C103:** Bacterial Pathogenesis (3)
- **PB HLTH 162A:** Public Health Microbiology (3)

### 3) **Epidemiology**

- **CHEM 112A/B:** Organic Chemistry (5/5)
- **DEMOG 110:** Introduction to Population Analysis (3)
- **GEOG 130:** Food and the Environment (4)
- **INTEGBI 131:** General Human Anatomy (3)
- **INTEGBI 132:** Survey of Human Physiology (4)
- **INTEGBI 140:** Biology of Reproduction (4)
- **MCELLBI 140:** General Genetics (4)
- **PB HLTH 112:** Global Health: A Multidisciplinary Examination (4)

### 4) **Environmental Health Sciences**

- **CHEM 112A/B:** Organic Chemistry (5/5)
- **CIV ENG 110:** Water Pollution Control and Treatment (3)
- **CIV ENG 111:** Environmental Engineering (3)
- **CIV ENG 113:** Ecological Engineering for Water Quality Improvement (3)
- **CIV ENG 114:** Environmental Microbiology (3)
- **ECON C102/ENVECON C102:** Natural Resource Economics (4)
- **ECON C171/ENVECON C151:** Economic Development (4)
- **ECON C181/ENVECON C181:** International Trade (4)
- **ENE,RES C100/PUB POL C184:** Energy and Society (4)
- **ENE,RES 102:** Quantitative Aspects of Global Environment Problems (4)
- **ENVECON 131:** Globalization and the Natural Environment (3)
- **ENVECON 152:** Advanced Topics in Development and International Trade (3)
- **ENVECON 153:** Population, Environment, and Development (3)
- **ENVECON 161:** Advanced Topics in Environmental and Resource Economics (4)
- **ENVECON C175/IAS C175:** The Economics of Climate Change (4)
- **ESPM 155:** Sociology of Natural Resources (4)
- **ESPM 168:** Political Ecology (4)
- **ESPM 169:** International Environmental Politics (4)
- **GEOG 123:** Postcolonial Geographies (4)
- **GEOG 130:** Food and the Environment (4)
- **GEOG 138:** Global Environmental Politics (4)
- **GEOG C188/LD ARCH C188:** Geographic Information Systems (4)
- **HISTORY 120AC:** Environmental and Cultural History of America (4)
- **INTEGBI 117:** Medical Ethnobotany (2)
- **ISF 100D:** Introduction to Technology, Society, and Culture (4)
- **LATAMST 150:** Perspectives for Sustainable Rural Development in Latin America (4)
- **NUSCTX 110:** Toxicology (4)
- **NUSCTX 166:** Nutrition in the Community (3)
- **PB HLTH C160/ESPM C167:** Environmental Health and Development (4)
- **PB HLTH 170C:** Drinking Water and Health (3)
- **SOCIOL 121:** Innovation and Entrepreneurship: Social and Cultural Context (4)
- **SOCIOL 166:** Society and Technology (4)

## **5) Health Policy & Management**

- **CY PLAN 120:** Community Planning and Public Policy for Disability (3)
- **ECON 157:** Health Economics (4)
- **ESPM 102D:** Resource and Environmental Policy (4)
- **LEGALST 103:** Theories of Law and Society (4)
- **LEGALST 107:** Theories of Justice (4)
- **LEGALST 168:** Sex, Reproduction and the Law (4)
- **MEDIAST 102:** The Effects of Mass Media (4)
- **PB HLTH 116:** Social, Political and Ethical Issues in Health/ Medicine (3)
- **PB HLTH 126:** Health Economics (3)
- **PB HLTH 180:** Topics in Human Sexuality (2)
- **PB HLTH 181:** Poverty and Population (3)
- **PB HLTH 183:** History of Public Health, Medicine, and Allied Sciences (3)
- **PUB POL 101:** Introduction to Public Policy Analysis (4)
- **PUB POL 117AC:** Race, Ethnicity and Public Policy (4)
- **PUB POL 156:** Program and Policy Design (4)
- **PUB POL 179:** Public Budgeting (4)
- **POL SCI 103:** Congress (4)
- **POL SCI 150:** The American Legal System (4)
- **POL SCI 171:** California Politics (4)
- **SOCIOL 115G:** Global Health and Social Justice (4)
- **SOC WEL 112:** Social Welfare Policy (3)

## **6) Community Health & Human Development**

- **ASAMST 143AC:** Asian American Health (3)
- **CHICANO 176:** Chicanos and Health Care (3)
- **NUSCTX 166:** Nutrition in the Community (3)
- **PB HLTH 14:** Healthy People: Introduction to Health Promotion (4)
- **PB HLTH 103:** Drugs, Health, and Society (2)
- **PB HLTH 104 A/B:** Health Promotion in a College Setting (2/2)
- **PB HLTH 105:** Policy, Planning and Evaluation of Health Promotion in a College Setting (3)
- **PB HLTH 107:** Violence, Social Justice, and Public Health (2)
- **PB HLTH 113:** Campus/Community Health Impact Program (3)
- **PB HLTH 118:** Nutrition in Developing Countries (3)
- **PB HLTH C129/NEUROSC C129:** Aging and the Human Brain (3)
- **PB HLTH C155/SOCIOL C115:** Sociology of Health and Medicine (4)
- **PSYCH 134:** Health Psychology (3)

## **VI. Advising Information**

### **a. Student Academic Advisors**

Sonthonax (Sonny) Vernard – 435 University Hall

***Please email or call for advising hours and appointment scheduling.***

Advising email: [sphug@berkeley.edu](mailto:sphug@berkeley.edu)

Advising phone: (510) 643-0874

### **b. General Advising Information**

You and the University share responsibility for your education. Our most successful students recognize the responsibility they must assume for their own progress. At UC Berkeley, you have both the freedom and the responsibility to make sound decisions about your academic career. With this freedom comes the need to be responsible not only about your academics, but also about the administrative duties you need to complete in order to graduate.

As with any degree program, the Student Academic Advisor is not responsible for the initiation and creation of a full program for any single student; however he, along with the Peer Advisors, are available to help guide students and answer questions as students create their plans.

The College of Letters & Science has extensive advising resources for helping students plan out a college degree program. Their helpful website is at: <https://ls.berkeley.edu/ls-office-undergraduate-advising>.

### c. CalCentral Advising Information

After a student declares their Public Health major, and/or has 90+ units of coursework, an advisor hold will be placed on their enrollment in CalCentral. At the beginning of the enrollment period, declared majors must check in with the Student Academic Advisor for approval of their proposed class list in order to having their advisor hold released. An appointment can be made with the Student Academic Advisor through email.

Students are expected to have reviewed the schedule of classes before meeting with the Student Academic Advisor. Students should ensure that all classes they are interested in are offered in the next semester and do not have time conflicts with other classes they are planning on taking.

## VII. Declaring the Major

To qualify for the major, a student must **first** complete all of their lower division prerequisites for the major (mathematics, biology, and social sciences) with at least a grade of **C-**. The average grade earned in these prerequisite classes must be at least a **C** (2.0 prerequisite GPA), but students with a prerequisite GPA below 2.5 are less likely to be admitted.

Students must submit an application, accepted at the end of every semester, including summer (<http://sph.berkeley.edu/students/undergrad/index.php>), and if accepted, the student can then declare, usually by the end of their second year. Students typically will have earned 60 units (minus AP units and community college courses completed while still in high school) by this point.

## VIII. Other Major Options

While we understand that the public health major is extremely desirable, there are other majors that may suit your interests if you are unable to declare Public Health due to limited openings in the major.

**1) Interdisciplinary Studies Field Major**

The Interdisciplinary Studies Field Major (ISF) at UC-Berkeley offers students the opportunity to develop individualized cross disciplinary majors utilizing courses from the social sciences, the humanities, and/or the professional schools and colleges. The ISF Major is unique in the College of Letters and Science in the importance it assigns to the advising role. The student's part in this aspect of the major is active, not passive. That is, the student must actively plan her/his own program and cultivate a working relationship with the assigned or chosen faculty adviser. For more information, visit: <http://ls.berkeley.edu/ugis/isf/>

**2) Molecular and Cell Biology**

The undergraduate major in Molecular and Cell Biology encompasses the diversity of scientific interests of the department's faculty. There are several emphases to choose from: Biochemistry & Molecular Biology, Cell & Developmental Biology, Genetics, Genomics & Development, Immunology, and Neurobiology. Students majoring in any of these emphases have been highly successful in entering graduate or medical school and in other science- and health-related careers. For more information, visit: <http://mcb.berkeley.edu/undergrad/>

**3) Integrative Biology**

The Department of Integrative Biology is in the Division of Biological Sciences in the College of Letters and Science. Students in the department gain a background in all aspects of biology, including a wide range of organisms and diverse investigative techniques. For more information, visit: <http://ib.berkeley.edu/student/undergrad/>

**4) American Studies**

American Studies is an interdisciplinary major which mixes social sciences, material culture, the built environment, law, business, history and literature. This degree can also be focused in American health and wellness, by encouraging students to create individual programs which suite their interests. For more information, visit: <http://ls.berkeley.edu/ugis/as/>

**5) Social Welfare**

The Undergraduate Group Major in Social Welfare introduces students to problems, policies, and methods in the social welfare field. This major is an excellent pre-professional major for education, law, public health, public policy, and related fields. For more information, visit: [http://socialwelfare.berkeley.edu/undergrads/ugrad\\_program.htm](http://socialwelfare.berkeley.edu/undergrads/ugrad_program.htm)

## **IX. Education Abroad Programs**

Citing the increase in global health issues, the major encourages students to consider a semester studying abroad, even if the specific abroad program does not meet specific Public Health program requirements. At the very minimum, study abroad can meet a variety of breadth requirements such as international, arts & literature, and historical. Additionally, the more language and culture skills a public health professional has, the better, and students are especially

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encouraged to have Spanish as an additional language. Other students are interested in a “heritage” EAP, traveling to a country of their background.

Some popular destinations have included Spain, China, and the U.K. Costa Rica has an interesting bioresearch program, while a new program in Botswana in southern Africa specifically has coursework on public health issues. Overall, there are over 150 programs in 35 countries.

In general, education abroad coursework could potentially meet electives in the public health program, as long as the courses taken abroad are similar to those at Berkeley already selected by the faculty here. Public health core classes must be completed at UC Berkeley.

For more information, please go to <http://eap.ucop.edu/>.

## **X. Honors Thesis Research Projects**

For the Public Health major, students may conduct an honors thesis research project. There are two options for the thesis: 1. Analysis of an issue or data from a research group you are working with (e.g., analysis of a public health intervention, or laboratory experiments) **OR** 2. Analysis of a problem or data from an existing publically available data base. Students must find a faculty member to be their mentor for the research project of their own choosing. The first step is to select a topic of research, the student is passionate about. The second step is to find a faculty mentor who is willing to mentor the student through the thesis writing process.

Students must have a minimum 3.3 GPA for all courses taken at UC Berkeley to be eligible to complete a Public Health honors thesis. Successfully completing the thesis will earn the student Honors in Public Health on their UC Berkeley transcript and will fulfill the capstone requirement for the Public Health major.

The Honors Thesis project is a two semester commitment, starting in the fall semester, concluding in spring. In the fall semester the student must enroll in the honors thesis course (PH H195A) as well as independent study/research units under their faculty mentor (a 199 course in the department of their faculty mentor, e.g. PH 199 for a Public Health faculty member). In the spring semester the student must enroll in the second half of the honors thesis course (PH H195B) as well as independent study/research units under their faculty mentor. Once a faculty mentor has agreed to work with the student, the student should contact Dr. Charlotte Smith ([charlottesmith@berkeley.edu](mailto:charlottesmith@berkeley.edu)) about enrolling in the honors thesis course.

The purpose of these honors thesis courses is to support the process of conducting research that will comprise the senior honors thesis in Public Health. The technical skills obtained and practiced in the classes are intended to enhance the joy of research and reduce the challenges of thesis writing. Fall semester content focuses on acquiring the skills and ability to confront challenges when conducting research. The spring semester focuses on writing and publishing scientific documents and presenting scientific information in mixed media (written and oral) to diverse audiences (scientists

Some titles of prior undergrad theses:

- Prevalence and Treatment of Diabetes in Rural Tanzania
- Rural vs. Urban risk and protective factors for the development of early childhood caries (ECC) in developing countries
- The Biological Effects of Condom Lubricants and Public Health Policy
- Implications: Focus on College Culture
- The Role of CIITA fusion protein in Lymphoma cancer
- Biofilm Formation and the MCE operons in *Mycobacterium smegmatis*
- Environmental Associations for Onchocerciasis Prevalence in the Democratic Republic of Congo

In addition, students may earn Distinction in General Scholarship from the College of Letters & Science based on their overall GPA as shown below (for 2015-16):

- **Honors:** 3.724 to 3.843
- **Honors with Distinction:** 3.844 to 3.943
- **Honors with Highest Distinction:** 3.944 and above

## **XI. College Requirements and Graduation**

### **a. Degree Requirements**

In addition to completing all the requirements in the Public Health Major, students must also complete requirements from the University, Berkeley Campus and College of Letters and Science (L&S). The most current L&S requirements can be found at:

<http://ls-advise.berkeley.edu/requirements/intro.html>

#### **1) University Requirements**

- Entry Level Writing
- American History
- American Institutions

#### **2) Berkeley Campus Requirements**

- American Cultures

#### **3) L&S Requirements**

- Reading and Composition
- Quantitative Reasoning
- Foreign Language
- **Seven Course Breadth:** One course in each of seven categories, with no more than two from the same department.
  1. Arts and Literature
  2. Biological Science

3. Historical Studies
4. International Studies
5. Philosophy and Values
6. Physical Science
7. Social and Behavioral Sciences

#### **4) Unit Requirements**

- 120 total units, including at least 60 L&S units
- Of the 120 units, 36 must be upper division units
- Of the 36 upper division units, 6 must be taken in courses offered outside your major department.

#### **b. Degree Audit Report (DARS)**

We suggest that students also periodically review their Degree Audit Report from BearFacts (Academic Progress Report in the new CalCentral system) and review it with an L&S College advisor for satisfaction of L&S Requirements, and with the Public Health Student Academic Advisor for completion of public health requirements. The review process with the Public Health Student Academic Advisor will likely be conducted once a semester when the student request release of their advisor holds for CalCentral enrollment for the following semester.

Keep in mind that DARS often makes mistakes, often of omission; for example, new Public Health courses or graduate Public Health that can meet electives may not show up on DARS, but these courses will still meet electives.

#### **c. Graduation and Commencement (two separate events)**

##### **1) Graduation**

- Graduation occurs once you have officially completed all of your degree requirements.
- You can clarify whether your anticipated graduation date is correct in the Berkeley system by going to BearFacts, clicking on "Personal," and then selecting the "Personal Profile" tab. Your major and anticipated graduation date should both appear in this section. From this page you can also verify your completion of the University Requirements and Berkeley Campus Requirements. For assistance in the new CalCentral system students can reach out to Cal Student Central: 510-664-9181, [studentcentral.berkeley.edu](mailto:studentcentral.berkeley.edu)

##### **2) Commencement**

- Commencement is a ceremony celebrating the completion of your degree.
- For the Public Health department, commencement ceremonies are usually held several days after finals end, although the exact date is not assigned by campus until the prior September.
- Students who complete their requirements during summer or fall of a particular year are also welcome to participate in the May commencement ceremonies of that year.

#### **d. Receiving a Diploma**

In the same way that students must declare their major, students are also responsible for declaring their candidacy for graduation. This should occur in the semester all requirements will be completed. Students will put themselves on the degree list through the new CalCentral system. The process for doing this is

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currently being developed, so students should contact L&S to learn the latest on adding to the degree list.

Diplomas are not given out at [Commencement](#). In fact, they are not available until several months after the degrees are officially granted and posted to your official transcript. For more information or to arrange to have your diploma mailed to you, contact the [Diploma section](#) of the [Registrar's Office](#) (510-642-6765).

Your diploma will list your major as “**Public Health.**”

## **XII. Public Health Courses which Fulfill Breadth Requirements**

**a. Arts & Literature:** none

**b. Biological Science:**

- **PH C102:** Pathogenesis (3)
- **PH C160:** Environmental Health and Development (4)
- **PH 162A:** Public Health Microbiology (3)

**c. Historical Science:**

- **PH 183:** History of Medicine (3)

**d. International Studies:**

- **PH 112:** Global Health: A Multidisciplinary Examination (4)

**e. Philosophy & Values:** None.

**f. Physical Science:** None.

**g. Social & Behavioral:**

- **PH 14:** Introduction to Public Health (4)
- **PH 150A:** Introduction to Epidemiology (3)
- **PH 150B:** Introduction to Environmental Health Science (3)
- **PH 150E:** Introduction to Community Health (3)
- **PH C160:** Environmental Health and Development (4)
- **PH 181:** Population and Poverty (3).

In addition, PH150E, Introduction to Community Health and Human Development, meets the American Cultures (AC) requirement.

## **XIII. Research and Internship Opportunities**

**a. Undergraduate Research at Berkeley**

This website lists out numerous research possibilities for UC Berkeley undergraduates. For more information, visit: <http://research.berkeley.edu/>

**b. Undergraduate Research Apprentice Program (URAP)**

Students are encouraged to participate in the many diverse research opportunities offered through UC Berkeley. The Undergraduate Research



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Apprentice Program is an excellent place to connect with faculty and learn important research skills. You can find more information at:  
<http://research.berkeley.edu/urap/>

**c. UC Berkeley's Washington Program (UCDC)**

The UCDC program provides undergraduates with a unique opportunity to spend a semester (Fall or Spring) in Washington, D.C. pursuing full-time course work and an internship in their selected field. The undergraduate academic program is a major component of the U.C. Berkeley Washington Center. The Center also sponsors conferences, symposia, and policy debates, connects D.C.-based alumni with the home campus, and provides U.C. Berkeley with a physical presence in the nation's capital. For more information visit: <http://learning.berkeley.edu/ucdc/program.htm>

**d. Scholarship Connection**

For fellowships and scholarships which can be used to pursue research and other educational endeavors visit: <http://scholarships.berkeley.edu>

**e. Health Career Connection**

Offers paid summer Public Health internships in leading health organizations in Northern and Southern California, New England, New York and New Jersey. Provides exposure, experience, and mentoring for students exploring health careers. For more information visit: [www.healthcareers.org](http://www.healthcareers.org).

**f. STEER Program – Short Term Educational Experiences in Research in Environmental Health –** <http://coeh.berkeley.edu/steer/>

## **XIV. Public Health Related Student Group – Cal UPHC**

The mission of California Undergraduate Public Health Coalition (Cal UPHC) mission is to help students gain R.E.A.L. experience in the field of public health through Research, Education, Action, and Leadership. They are a professional organization that strives to give students the skills, experience, opportunities and support necessary to excel in the field of public health. For more information, visit: <https://caluphc.com/>

## **XV. Tips for Success**

**a. Selecting an Email Address**

UC Berkeley campus policy mandates student use and maintenance of a Berkeley.edu email address. All administrative announcements will be sent by academic email to your @berkeley.edu address. Students are welcome to forward to alternate providers of choice, but they are responsible for all official campus emails.

Using your first and last name in the email address is oftentimes the best option. Here are a few suggestions using the name Jack Smith:

- **First Name and Last Initial:** JackS@berkeley.edu
- **First Name and Last Name:** JackSmith@berkeley.edu
- **First Initial and Last Name:** JSmith@berkeley.edu
- **Last Name:** Smith@berkeley.edu
- **Last Name and First Name:** SmithJack@berkeley.edu

**b. List Serve**

You will be added to the Public Health List Serve once you officially declare the major and are accepted into the Public Health major. The listserve is only for students in the major and recent graduates of the major.

**c. Create a Four Year Plan**

If you are really passionate about the Public Health major, then create a four year plan for yourself of all of the classes you plan on taking. This is a useful exercise as it gives you an idea of the classes you are interested in.

Some students read through the entire General Catalog to determine which courses they find interesting to make sure they are committing to the right major. Having a draft of your four-year plan, even if you keep making changes to it, is useful when discussing classes and options with advisors.

## **XVI. What Have Students Done with a Public Health Degree?**

Depending on emphasis, the Bachelor of Arts degree in public health prepares students for graduate study in a variety of fields including public health, public policy, and nutrition. Those who choose to work after obtaining their B.A. are employed by government, private, and nonprofit organizations as survey workers, educators, and research project associates.

Internships and other public health career services are offered through the [Center for Public Health Practice](#). Additional career assistance can be found at the [UC Berkeley Career Center](#).

## **XVII. Preparing for Graduate School**

We advise students interested in graduate school to begin developing relationships with professors early on in their academic career. If you are potentially interested in requesting a letter of recommendation from a professor in the future, they must first get to know you. Taking multiple courses from the same professor, going to office hours and working with them on research projects are all ways for them to get to know your work skills, academic prowess and personality. To enable a professor to write a strong letter of recommendation, you must put in the time to develop a relationship.

When you are ready to request recommendation letters, you may decide to use Berkeley's Letter Service. This service allows professors to submit letters of recommendation to the Career Center where they are kept on file and mailed out to prospective graduate schools or employers at your request. All requests can be handled online.

This service also lets you choose whether your letters are confidential, so institutions and corporations are assured letters are written in an unbiased fashion by professors. Choosing confidential letters means that you as the student will NOT obtain a copy of the letter.

To write a letter of recommendation, most professors require at least three weeks advance notice. More information about the Letter Service is available at: <http://career.berkeley.edu/Letter/Letter.stm>

## **XVIII. Career Services**

### **Center for Public Health Practice (CPHP):**

The Center for Public Health Practice offers Public Health career related workshops in fall semester, including the weekly seminar entitled “What Can You Do with a Public Health Degree?” Leading professionals from all sectors of the Public Health field speak about emerging trends, academic preparation, career options, and great networking opportunities. Undergraduates are welcome.

CPHP also offers professional development workshops in spring semester. These workshops offer valuable practical skills & knowledge to help prepare students for Public Health practice.

Both fall and spring workshops can be taken for credit or just for exposure and skill development. Students can attend individual or all sessions. The undergraduate Public Health Association also offers numerous career events. CPHP also offers job postings for undergrads. Find public health networking and job info at <http://sph.berkeley.edu/jobs-networking>

### **Career Center:**

People in the Career Center are available to discuss job opportunities in the field of Public Health. There are a number of ways to connect with them such as 15-minute Mini-Appointments, 45-minute Regular Appointments, Drop-in time and Peer Advisors. Details can be found on the Career Center website: <http://career.berkeley.edu/Info/MakeAppt.stm>

Sign up for Career Mail here: <https://career.berkeley.edu/MailList/MailList>

Information about Career Fairs, Internships, writing your resume and much more can be found here: <http://career.berkeley.edu/Tools/Tools.stm>

## **XIX. Resources**

**College of Letters & Science Advising:** <http://ls-advise.berkeley.edu>

**Career Center:** <http://career.berkeley.edu>

**Student Learning Center:** <http://slc.berkeley.edu>

**UCB Library:** <http://lib.berkeley.edu>

**Undergraduate Research at Berkeley:** <http://research.berkeley.edu>

**PubMed:** [www.pubmed.com](http://www.pubmed.com)

**Association of Schools & Programs of Public Health:**  
<http://www.aspph.org/>

**American Public Health Association:** <http://apha.org/>

## **XX. Frequently Asked Questions about the Public Health Major**

### **a. Can I double major?**

Students are generally advised to not seek a double major, for a variety of reasons, including having a negative impact on grades and scheduling conflicts. Instead, a minor (such as Global Poverty and Practice, Public Policy, Education, Nutrition, Demography, Geographic Information Science, and most languages) works much better both for scheduling and for time constraints. However, it may be possible to do a double major; discussing with the adviser is crucial.

Of importance is why a student wants to double major. Originally, the double major was developed for those students who could not decide between two majors and wanted to do both. Now, many students feel that double majoring will make them "competitive" for graduate or medical school, or that since their roommates are doing a double major, they should do one also.

These are not really valid reasons to do double majors: in regards to medical school, a case study of a recent Cal graduate illustrates how doubling is not essential for medical school admission, and actually could be a hindrance.

### **b. The major's web page states that students usually declare at the end of their sophomore year. If I finish all of the prerequisites for the major by the end of my sophomore year, am I guaranteed to be able to major in public health?**

Completing all the pre-requisites **does not** guarantee you placement in the major. Admission into the major is dependent on your prerequisite coursework and the information you provide in your application to the major. All students should have a backup major!

### **c. Can I take courses at a community college or use AP credits and have it be transferable to count for my pre-requisites?**

**Yes.** However, you must complete the courses required for the major at Cal. High school AP coursework can be accepted for the social sciences (a 3, 4, or 5 in any of the following: AP government for either Poli Sci 2 or 4; both AP micro and macro-economics for either Econ 1, 2, or 3; AP Psychology for either Psych 1 or Psych 2).

### **d. How do I know whether a course I took at a community college is transferable to UC Berkeley?**

Check the "ASSIST" website, which is the official site for courses from other colleges transferable to the University of California at <http://www.assist.org/web-assist/welcome.html>

- ASSIST is an online student-transfer information system that shows how course credits earned at one public California college or university can be applied when transferred to another. ASSIST is the official repository of articulation for California's public colleges and universities and provides the most accurate and up-to-date information about student transfer in California.

**e. Do I need to complete my Reading & Composition, American Cultures, and/or breadth requirements before declaring a Public Health major?**

While the R&C requirements must be met before declaring any major (Public Health included), the American Cultures and the breadths can be completed at any time during your undergraduate career.

**f. If I've already taken a Social Science class that satisfies my American Cultures requirement, can I also use it to satisfy the School of Public Health Social Science requirement?**

Yes.

**g. What do I do to get on the degree list?**

Contact L&S for the new procedure to add to the degree list in CalCentral.

**h. Can I take PH graduate courses as an undergrad?**

Possibly, it depends on the student and their preparation. Generally such interested students should first contact the instructor for approval. If granted, then the student may be able to use the course towards electives as long as they take the course for a letter grade.

## **XXI. Academic Honesty/Student Conduct:**

As with all other programs on campus, the faculty and staff of the Public Health Undergraduate Program take issues concerning academic honesty and student conduct very seriously, particularly with issues involving plagiarism. So there is no misunderstanding about what constitutes plagiarism, all students are encouraged to review the information presented at the site for the Center for Student Conduct: <http://campuslife.berkeley.edu/conduct>.