

University of California, Berkeley

Public Health Undergraduate Major

Student Handbook

2011-2012

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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 continues to gain popularity 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

The Undergraduate Major in Public Health is undergoing heavy enrollment pressures. However, the major will do its best to accommodate all those who are qualified. If need be, students should be prepared to seek alternative majors such as Molecular and Cellular Biology, Integrative Biology, the ISF (Interdisciplinary Studies) Major, American Studies, Social Welfare, or Psychology.

Accordingly, a formal application procedure will be put in place for all 2nd year students in the 2010-2011 academic year, effective at the end of the Spring 2011 semester. The application will include not only a review of an applicant's academic preparation (coursework and GPA), but also will require a writing sample similar to the "Statement of Purpose" required by graduate applications for the School of Public Health. This will give 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.

III. Public Health Faculty

a. Undergraduate Management Committee

1. [Steve Selvin, Chair](#)

- **Research Interests:** Epidemiologic methods, spatial analysis, Matched pair design and application to problems in human health, statistical analysis of epidemiologic data.
- 2. [Barbara Abrams](#)
 - **Research Interests:** Weight and weight gain in women during pregnancy, postpartum and menopause; Maternal weight, nutrition, social factors and perinatal health outcomes; Could expressed and heat-treated breast milk prevent perinatal HIV transmission?
- 3. [Gertrude Buehring](#)
 - **Research Interests:** Uncovering the cause of breast cancer: Does bovine leukemia virus infection play a role? Early detection of breast cancer using breast fluid cytology.
- 4. [Sandra Dratler](#)
 - **Research Interests:** Public Health practice, International Health Sector Reform, Health System Capital Formation, Management Capacity building in the Developing World, Monitoring and Evaluation of HIV/AIDS Programs
- 5. [Maureen Lahiff](#)
 - **Research Interests:** Multivariate methods; Time series and longitudinal data; Acculturation and health.
- 6. [Bill Satariano](#)
 - **Research Interests:** Investigation of functional disability in older women with breast cancer; study of exercise capacity and physical performance in older populations.
- 7. [Christine Skibola](#)
 - **Research Interests:** Genetic susceptibility to leukemia and lymphoma; Biological effects of dietary phytochemicals on human health and disease with an emphasis on sex hormone metabolism
- 8. **Tony Soyka**, Student Adviser

b. Additional Teaching Faculty

[Professors Tomas Aragon & Wayne Enanoria](#)

- Summer Center for Infectious Disease Preparedness Program

[Professor Ernest B. Hook](#)

- PH 183 - The History of Medicine, Public Health, and the Allied Health Sciences

[Professor Arthur Reingold](#)

- PH 39C - Freshman Seminar, "Medical Detectives"

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, Sandra Dratler, Sylvia Guendelman, Winston Tseng, and Malcolm Potts.

For more information about honors research projects, please refer to section X, on page 14.

IV. Course Requirements: Important Information

a. Bio 1B: A requirement

To qualify for the Public Health major, students **must** first receive a minimum grade of a **B-** in Bio 1B. However, all students interested in the major, or the field of Public Health in general, are encouraged to consult with the Student Academic Adviser Tony Soyka concerning possible entry into this popular program, including possible alternative majors.

b. Letter Grade or Pass/No Pass?

All course work is to be taken for a letter grade (with the exception of possible electives PH 116 and PH 104 A/B, which are offered as Pass/No Pass only).

V. Course Requirements for the Public Health Major

a. University of California Requirements

- Subject A, American History and Institutions

b. Berkeley Campus Requirements

- American Cultures
- Reading/Composition
- Quantitative Reasoning
- Breadth

c. Biological Science Requirements

- **General Biology 1B** (4)
(A minimum grade of B- is required for all new students.)
- **General Biology 1A** (4)*
OR two of the following courses:
 - **NST 10:** Introduction to Human Nutrition (3)
 - **MCB 11:** Molecular Biology of Molecules and Man (3)
 - **MCB 32:** Introduction to Human Physiology (3)
 - **MCB 41:** Genetics: Genetics and Society (3)
 - **MCB 50:** Immunology: Immune System and Disease (3)
 - **MCB 61:** Neurobiology: Brain, Mind, and Behavior (3)

*requires Chemistry 1A (3) and Chemistry 3A/L and 3B/L (9)

d. Mathematics Requirements

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

- **MATH 1A:** Calculus (4)
- **MATH 1B** (F) or **H1B** (F, SP)

- **MATH 16A:** Calculus (3)
- **MATH 16B** or **H16B:** Calculus (3)
- **MATH 32:** Pre-calculus (4)

e. Social Sciences Requirements

Three courses in at least two areas:

1) Psychology

- **PSYCH 2:** Principles of Psychology 2 (3)
(**PSYCH 1** is also acceptable)

2) Sociology

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

3) Economics

- **ECON 1, 2, or 3:** Introduction to Economics (4)

4) Anthropology

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

5) Political Science

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

f. Public Health Requirements

Four core courses must be completed.

- **PH 142:** Intro to Probability and Statistics in Public Health (4)
➤ (Alternatively, PH 141 or Stat 131A can be used to meet this requirement.)
- **PH 150A:** Introduction to Epidemiology (4)

The remaining *two* core classes can be any of the following:

- **PH 150B:** Introduction to Environmental Health (3)
- **PH 150D:** Introduction to Health Policy & Management (3)
- **PH 150E:** Community Health and Human Development (3)
- **PH 162A:** Public Health Microbiology (3)

g. Electives

Twelve units of elective courses are required. Students who plan to continue to graduate school are strongly advised to concentrate elective units in only one or two areas of study. 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 Student 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 Tele-Bears.

Please refer to the on-line schedule of classes 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)
- **PH 143:** Introduction to Methods in Computational Biology (4)
- **PH 145:** Statistical Analysis of Continuous-Outcome Data (4)
- **STAT 101:** Introduction to the Theory of Probability (4)
- **STAT 102:** Introduction to the Theory of Statistics (4)
- **STAT 150:** Stochastic Processes (3)
- **STAT 151A/B:** Linear Modeling: Theory and Application (8)
- **STAT 152:** Introduction to Time Series (4)

2) Infectious Diseases

- **ESPM 145:** Arthropod-borne Zoonotic Diseases (2)
- **ESPM 146:** Medical/Veterinary Entomology (3)
- **MCB 102:** Principles of Biochemistry and Molecular Biology (4)
- **MCB 114:** Introduction to Comparative Virology (4)
- **MCB 130:** Cell Biology (4)
- **MCB 140:** General genetics (4) or **MCB 142:** Survey of General Genetics (4)
- **MCB 142:** Survey of General Genetics (4)
- **MCB 150:** Molecular Immunology (4)
- **MCB 160:** Introduction to Neurobiology (4)
- **IB 131:** General Anatomy (3)
- **IB 132:** Survey of Human Physiology (3)
- **IB 137:** General Endocrinology (4)
- **PMB 110:** Biology of Fungi (4)

3) Epidemiology

- **CHEM 112A/B:** Organic Chemistry (10)
- **DEMOG 110:** Introduction to Population Analysis (3)
- **GEOG 130:** Natural Resources and Populations (3)
- **IB 131:** General Human Anatomy (3)
- **IB 132:** Survey of Human Physiology (3)
- **MCB 135E:** Physiology of Human Development (3)
- **MCB 135K:** Physiology of the Aging Process (3)
- **MCB 152:** The Immune System (4)

4) Environmental Health Sciences

- **CHEM 112A/B** : Organic Chemistry (10)
- **CE 108**: Air Pollution Emission and Controls (3)
- **CE 109**: Indoor Air Quality (3)
- **CE 110**: Water Pollution Control and Treatment (3)
- **CE 111**: Environmental Engineering (3)
- **CE 114**: Environmental Microbiology (3)
- **ENR 102**: Quantitative Aspects of Global Env. Problems (4)
- **ERG 100**: Energy and Society (4) (F)
- **ERG 102**: Quantitative Aspects of Global Environment Problems (4)
- **ERG 130**: Analysis of Environmental Data (3) (F)
- **ESPM 167**: Environmental Health and Development (3)
- **GEOG 130**: Natural Resources and Populations (4)

5) Health Policy & Management

- **CY PLAN 112A**: The Idea of Planning (3)
- **CY PLAN 120**: Community Planning and Public Policy for Disability (3)
- **ECON 157**: Health Economics (3)
- **ESPM 102D**: Resource and Environmental Policy (4)
- **LS 103**: Theories of Law and Society (4)
- **LS 107**: Theories of Justice (4)
- **LS 165**: Drug, Tobacco and Alcohol Policy (cross-listed with PP 162C) (3)
- **LS 168**: Sex, Reproduction and the Law (4)
- **MASS COMM 102**: The Effects of Mass Media (4)
- **PH 116**: Social, Political and Ethical Issues in Health/ Medicine (2)
- **PH 180**: Topics in Human Sexuality (2)
- **PP 101**: Introduction to Public Policy Analysis (4)
- **PP 156**: Program and Policy Design (4)
- **PP 117AC**: Race, Ethnicity and Public Policy (4)
- **PP 179**: Public Budgeting (4)
- **PS 103**: Congress (4)
- **PS 150**: The American Legal System (3)
- **PS 171**: California Politics (4)
- **SW 112**: Social Welfare Policy (3)

6) Community Health & Human Development

- **PH 14**: Introduction to Public Health (4)
- **PH 103**: Drugs, Health, and Society (2)
- **PH 104 A/B**: Health Promotion in a College Setting (2/2)
- **PH 105**: Policy, Planning and Evaluation of Health Promotion in a College Setting (3)
- **PH 113**: Campus/Community Health Impact Program (3)
- **PH 114**: Issues in Personal and Community Health Promotion (3)
- **PH 131AC**: Race, Ethnicity, and Health in America (3)

VI. Advising Information

a. Student Academic Advisor

Anatole (Tony) Soyka, M.A.

Office hours by appointment only. May be scheduled by email request or by phone.

sphug@berkeley.edu

285 University Hall

(510) 643-0874

b. Student Peer Advisors

Please feel free to email any of the student advisors with questions about the major, classes, or just to connect with someone who is already in the major. They can all be reached by email. Specific courses they have taken and have knowledge in are indicated under each name.

c. 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 each student creates their own class plan.

The College of Letters & Science has extensive tools for planning out a college degree program. Their helpful website is at: <http://ls-advise.berkeley.edu/pyyac/intro.html>, and is broken down by year (freshman, sophomore, junior, senior). Their Step-by-Step Guide is especially useful for quick access to information based on the year you are in and specific skills you are interested in establishing. The Step-by-Step tool can be found at: <http://ls.berkeley.edu/stepbystep/>

d. Tele-Bears Advising Information

After a student declares their major, and/or has 90+ units of coursework, an advisor code will be required to sign into Tele-Bears. At the beginning of the Tele-Bears Enrollment period, declared majors must meet with the Student Academic Advisor for approval of their proposed class list prior to receiving their Adviser Code. 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 the lower division requirements (mathematics, biology, and social sciences) and obtain a grade of at least a **B-** in Bio 1B. Once these requirements are fulfilled you should:

- 1) Schedule an appointment with the Student Academic Advisor for Public Health, Tony Soyka. The best way to schedule an appointment is to email Tony directly with your SID, and 3-4 half-hour timeslots that work for your schedule. Indicate your full name, first and last.
- 2) Upon review of your transcript (viewable through Bearfacts), Tony will give you a major declaration form to fill out.
- 3) The application procedure replaces the waitlist system, with applications accepted at the end of every semester (when grades are posted).

Students must submit an application, which are accepted at the end of every semester (<http://sph.berkeley.edu/students/undergrad/index.php>), and if accepted, will then declare their major in public health generally at the end of their sophomore year.

According to the Academic Senate regulations, by the time a student completes 60 units of coursework they must declare a major. Please keep this in mind as you decide on the major that is right for you.

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

IX. Sample Courses of Study in Public Health Major

The programs outlined below are strictly examples for six areas of emphasis in public health. The purpose is to illustrate possible in depth programs that fulfill the requirements of the public health major. There are many possibilities and the choices made to construct these sample programs may or may not fit any particular student needs. These samples can serve as a guideline to the creation of individual programs.

1) Biostatistics**Lower Division:**

- **CHEM 1A:** General Chemistry (3)
- **CHEM 3A/B:** Chemical Structures and Reactivity (9)
- **BIO 1A:** General Biology (4)
- **BIO 1B:** General Biology (4)

- **ECON 1:** Introduction to Economics (4)
- **ANTHRO 3:** Introduction to Social and Cultural Anthropology (4)
- **PSYCH 2:** Principles of Psychology (3)
- **MATH 16A/B:** Calculus (8)
- **MATH 53:** Multivariate Calculus (4)
- **MATH 54:** Linear Algebra and Differential Equations (4)

Upper Division Requirements:

- **PH 142:** Intro to Probability and Statistics in Public Health (4)
- **PH 150A:** Introduction to Epidemiology (3)
- **PH 150B:** Introduction to Environmental Health (3)
- **PH 150D:** Introduction to Health Policy & Management (3)

Upper Division Electives:

- **STAT 101:** Introduction to the Theory of Probability (4)
- **STAT 102:** Introduction to the Theory of Statistics (4)
- **STAT 151A/B:** Linear Modeling: Theory and Application (8)

2) Infectious Diseases

Lower Division:

- **CHEM 1A:** General Chemistry (3)
- **CHEM 3AB:** Chemical Structures and Reactivity (9)
- **BIO 1A:** General Biology (4)
- **BIO 1B:** General Biology (4)
- **PSYCH 2:** Principles of Psychology (3)
- **ANTHRO 3:** Introduction to Social and Cultural Anthropology (4)
- **MATH 1A/B:** Calculus (8)

Upper Division Requirements:

- **PH 142:** Intro to Probability and Statistics in Public Health (4)
- **PH 150A:** Introduction to Epidemiology (3)
- **PH 150B:** Introduction to Environmental Health, (3)
- **PH 162A:** Public Health Microbiology (3)

Upper Division Electives:

- **MCB 102:** Principles of Biochemistry and Molecular Biology (4)
- **MCB 150:** Molecular Immunology (4)
- **MCB 114:** Introduction to Comparative Virology (4)

3) Epidemiology

Lower Division:

- **CHEM 1A:** General Chemistry (3)
- **CHEM 3AB:** Chemical Structures and Reactivity (9)
- **PHYSICS 8AB:** Introductory Physics (8)
- **BIO 1A:** General Biology (4)
- **BIO 1B:** General Biology (4)
- **PSYCH 2:** Principles of Psychology (4)

- **ANTHRO 3:** Introduction to Social and Cultural Anthropology (4)
- **MATH 1A/B:** Calculus (8)

Upper Division Requirements:

- **PH 142:** Intro to Probability and Statistics in Public Health (4)
- **PH 150A:** Introduction to Epidemiology (3)
- **PH 150B:** Introduction to Environmental Health (3)
- **PH 162A:** Public Health Microbiology (3)

Upper Division Electives:

- **PH 143:** Introduction to Methods in Computational Biology (4)
- **PH 145:** Statistical Analysis of Continuous-Outcome Data (4)
- **DEMOG 110:** Introduction to Population Analysis (3)
- **IB 131:** General Human Anatomy (3)

4) Environmental Health Sciences

Lower Division Requirements:

- **CHEM 1A:** General Chemistry (3)
- **CHEM 3AB:** Chemical Structures and Reactivity (9)
- **BIO 1A:** General Biology (4)
- **BIO 1B:** General Biology (4)
- **MATH 1A/B:** Calculus (8)
- **ECON 1:** Introduction to Economics (4)
- **ECON 3:** Intro to Environmental Economics and Policy (4)
- **POLI SCI 2:** Intro to Comparative Politics (4)

Upper Division Requirements:

- **PH 142:** Intro to Probability and Statistics in Public Health (4)
- **PH 150A:** Introduction to Epidemiology (3)
- **PH 150B:** Introduction to Environmental Health (3)
- **PH 150D:** Introduction to Health Policy & Management (3)

Upper Division Electives:

- **PH 145:** Statistical Analysis of Continuous-Outcome Data (4)
- **PH 170B:** Toxicology (3)
- **ESPM 167:** Environmental Health and Development (3) (F)

5) Health Policy & Management

Lower Division Requirements:

- **BIO 1B:** General Biology (4) (F, SP)
- **PH 14:** Introduction to Public Health (3) (F)
- **NST 10:** Introduction to Human Nutrition (3) (F, SP)
- **MCB 41:** Genetics and Society (3) (SP)
- **MATH 16A:** Calculus (4) (F, SP)
- **MATH 16B:** Calculus (4) (F, SP)
- **PS 4:** Introduction to Political Theory (4) ()
- **ECON 1:** Introduction to Economics (4) (F, SP)

- **SOCIOL 3AC:** Principles of Sociology (4) (F, SP)

Upper Division Requirements:

- **PH 142:** Intro to Probability and Statistics in Public Health (4) (F)
- **PH 150A:** Introduction to Epidemiology (3) (SP)
- **PH 150B:** Introduction to Environmental Health (3) (SP)
- **PH 150D:** Introduction to Health Policy & Management (3) (F)

Upper Division Electives:

- **PH 145:** Statistical Analysis of Continuous-Outcome Data (4) (SP)
- **PP 101:** Introduction to Public Policy Analysis (4) (F, SP)
- **ECON 157:** Health Economics (3) ()
- **PH 116:** Social, Political and Ethical Issues in Health and Medicine (2) (F)(SP)

6) Community Health & Human Development

Lower Division Requirements:

- **BIO 1B:** General Biology (4)
- **NST 10:** Introduction to Human Nutrition (3)
- **MCB 41:** Genetics and Society (3)
- **MATH 16A/B:** Calculus (4)
- **PS 4:** Introduction to Political Theory (4)
- **ECON 1:** Introduction to Economics (4)
- **SOCIOL 3AC:** Principles of Sociology (4)

Upper Division Requirements:

- **PH 142:** Intro to Probability and Statistics in Public Health (4)
- **PH 150A:** Introduction to Epidemiology (3)
- **PH 150D:** Introduction to Health Policy & Management (3)
- **PH150E:** Introduction to Community Health (3)

Upper Division Electives:

- **PH104A/B:** Health Promotion in a College Setting (2/2)
- **PH 105:** Policy, Planning and Evaluation of Health Promotion in a College Setting (3)
- **PH107:** Violence, Social Justice, and Public Health (2)
- **PH 113:** Campus/Community Health Impact Program (3)
- **PH 114:** Issues in Personal and Community Health Promotion (3)

X. Honors Thesis Research Projects

For the Public Health major, students may conduct an honors thesis research project. Students must find a faculty member to be their mentor for a 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 also have an overall GPA of 3.3 for all courses taken at UC Berkeley.

The Honors Thesis project is a one year commitment. Once a Public Health faculty mentor has agreed to work with the student, the student should meet with the Public Health Student Academic Advisor to enroll in **195A**: Data Gathering and then subsequently **195B**: Thesis Writing.

In addition, students may receive honors from the College of Letters & Science based on their overall GPA as shown below:

- **Honors**: 3.67-3.80
- **High Honors**: 3.81-3.92
- **Highest Honors**: 3.93 or 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 request a Degree Audit Report from BearFacts 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 requests their advisor code for Tele-bears for the following semester.

To create a DARS report, from within BearFacts, go to the "Academic Record" tab, and then the "Degree Audit Report" subtab. Select the Public Health major and then make sure to indicate the most recent year and semester (using the Catalog Year drop-down box). This way the DARS report will be created based on the correct major requirements. The link to create a new DARS report is at the top of the screen under Audits, "Request New."

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.

2) Commencement

- Commencement is a ceremony celebrating the completion of your degree. Oftentimes this ceremony occurs prior to completion of your last final exam of your last semester.
- For the Public Health department, commencement ceremonies are usually held the first Saturday in May after classes end, which is typically before most final exams.
- 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. To put yourself on the Degree List, use Tele-Bears, click on the tab of the Semester you plan to graduate in (your current semester), then Click on the "Degree List" link on the left-hand side of the page under "Registration." From here you can select to have your diploma mailed to you a few months after you graduate for an additional fee.

If you are already on the Degree List it will be indicated on the "Home" tab of your Tele-Bears account.

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 162A:** Public Health Microbiology (3)
- **PH 170B:** Toxicology (3)

c. Historical Science:

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

d. International Studies: none

e. Philosophy & Values:

- **PH 116:** Seminar on Health & Medical Issues (2)

f. Physical Science:

- Public Health C171, 175

g. Social & Behavioral:

- **PH 14:** Introduction to Public Health (4)
- **PH 103:** Drugs, Health, and Society (2)

- **PH 105:** College Health Policy (3)
- **PH 114:** Issues in Personal and Community Health Promotion (3)
- **PH 116:** Seminar on Health & Medical Issues (2)
- **PH 130AC:** Aging and Health (3)
- **PH 131AC:** Race, Ethnicity, and Health in America (3)
- **PH 143:** Introduction to Methods in Computational Biology (4)
- **PH 150A:** Introduction to Epidemiology (3)
- **PH 150B:** Introduction to Environmental Health Science (3)
- **PH 150E:** Introduction to Community Health (3)
- **PH 180:** Topics in Human Sexuality (2).

In addition, PH150E, Introduction to Community Health and Human Development, will meet 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 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.

- f. **Summer Enrichment Program**, University of Michigan School of Public Health.

XIV. Education Abroad Program (EAP)

Students are encouraged to gain international skills and experience through the Study Abroad Program. There are over 150 in about 35 countries, yielding opportunities for students of every interest. Students can visit the EAP website at: <http://eap.ucop.edu/>

There are Health Science programs available through EAP in Chile, South Africa, Ghana, Hong Kong, Italy, Japan, Mexico, United Kingdom and Australia to name just a few locations previous students have traveled. Coursework may be applied towards the 12 units of electives, inquire with the student advisor Tony Soyka for more details.

XV. 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, please visit: <http://www.ocf.berkeley.edu/~caluphc/Home.html>

XVI. Tips & Tricks for Success

a. Selecting an Email Address

Your Berkeley email address is likely your primary form of communication with other students, professors and professionals at Berkeley. Selecting an appropriate email address is important. For instance, using a “cute” name such as “Babe01” is not only inappropriate for contacting many people on campus, but makes it very difficult for other students and professors to identify you.

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.

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 very 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 extremely useful when discussing classes and options with advisors.

XVII. 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](#).

XVIII. 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 their 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>

XIX. 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. For more info, contact cphp-berkeley.org.

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>

You can also sign up for Career Mail here: <http://career.berkeley.edu/MailList/MailList.asp>

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

XX. Resources

The following list are resources students find helpful:

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>

UCB News, Events and Speakers: <http://www.berkeley.edu/calendar>

Your Disease Risk (Harvard SPH): www.yourdiseaserisk.harvard.edu

PubMed: www.pubmed.com

Association of Schools of Public Health: www.asph.org/index.cfm

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

XXI. Frequently Asked Questions about the Public Health Major

a. How do I get added to the waitlist for the PH major?

As of fall of 2009, the application procedure replaces the waitlist system (<http://sph.berkeley.edu/students/undergrad/index.php>). It is advised to contact the Public Health Undergraduate Academic Advisor, Tony Soyka, at sphug@berkeley.edu to do course planning.

b. 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, and most languages) works much better both for scheduling and for time constraints. However, it may be possible to do a double major, but discussion with advisor Tony Soyka 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; with regards to medical school, a case study of a recent Cal graduate illustrates how double majoring is not essential for medical school, and instead may actually be a hindrance.

This particular student wanted to double major between Public Health and MCB. Tony the adviser asked “Why?” and the student responded “Because I want to go to medical school.” Tony responded that it might not do any good to do more lab courses as required by MCB, and that the student should instead pursue a minor (he did Global Poverty), volunteering and student leadership (he did Global Medical Brigades in Honduras), research (which led him to winning the Judith Stronach Award), and also maintain the student’s “hobby” in professional rollerblading, something he thought was “frivolous” but which Tony pointed out that this is actually important, it will make the student stand out as a unique individual. As a result, the student recently communicated to Tony saying “Thanks for your guidance, I wanted to let you know I just got into Harvard Medical School!”

Of course, this particular student did very well academically (3.7 GPA in difficult courses), but the point is, if he did MCB along with its additional lab-based courses, he probably would not have time to do the application-enhancing extracurricular work that made him stand out as an applicant.

- c. 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. Entering the major depends on your position on the waitlist in combination with the completion of the pre-requisites.

- d. 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.

- e. 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.

- f. Do I need to complete my Reading & Composition and American Cultures requirements before declaring a Public Health major?**

No. Those requirements need to be completed to fulfill the College of Letters and Science requirements to graduate and receive your degree. They do not need to be completed prior to declaring a PH major.

- g. 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.

- h. To take Bio 1A what do I need as a pre-requirement?**

You need to take the full chemistry series include Chem 1A, Chem 3A and Chem 3B. It is in your best interest to start on the Chem series your first semester at Cal if you are taking Bio 1A. Overall, it is best that students do the harder Chem-Bio 1A sequence to complete their bio prerequisites for Public Health, since many upper division courses and medical/health professional/graduate schools require it.

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

Students can put themselves on the degree list through Telebears; if it is late in the semester, they can also use [this form](#).