August 4, 2016

Dear Biostatistics Incoming Class:

Welcome to the Graduate Group in Biostatistics at the School of Public Health at the University of California, Berkeley.

We are pleased that you have decided to pursue your graduate studies here and look forward to interacting with you both in the classroom and extracurricular activities that await you.

The Graduate Group in Biostatistics has highly dedicated and experienced faculty and staff, and we encourage you to get to know them so that you fully benefit from your time at Berkeley. Each of you has been assigned a faculty advisor who will help to guide you during your time in the program. You are also encouraged to consult with our Graduate Student Affairs Officer for Biostatistics, Sharon Norris, for any questions related to graduate policies and procedures, or the biostatistics program in general.

We encourage you to read through your program handbook, and ask any questions you may have. You will also receive information from our Student Services and Admissions office. Please read these messages, as this information will be essential to your success here at SPH.

We look forward to getting to know each of you and understanding how we can help you achieve your educational and professional aspirations in the field of biostatistics.

All best wishes,

Sandrine Dudoit, PhD
Professor of Biostatistics and Statistics
Chair and Head Graduate Advisor
Graduate Group in Biostatistics
UC Berkeley School of Public Health

Alan E. Hubbard, PhD
Professor of Biostatistics
Head, Division of Biostatistics
UC Berkeley School of Public Health
# Table of Contents

<table>
<thead>
<tr>
<th>Core Competencies</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>5</td>
</tr>
<tr>
<td>Degree Programs</td>
<td>5-6</td>
</tr>
<tr>
<td>Candidacy Guidelines</td>
<td>6-7</td>
</tr>
<tr>
<td>Financial Support</td>
<td>7-8</td>
</tr>
<tr>
<td>Graduate Student Appointments (GSI/GSR)</td>
<td>8</td>
</tr>
<tr>
<td>Faculty Advisers</td>
<td>8-9</td>
</tr>
<tr>
<td>Curriculum and Biostatistics Core Courses</td>
<td>10-11</td>
</tr>
<tr>
<td>Computing</td>
<td>11</td>
</tr>
<tr>
<td>Current Student Info. &amp; Biostatistics Graduate Student Association (BSGSA)</td>
<td>12</td>
</tr>
<tr>
<td>Enrollment, bCourses, Student Workspace</td>
<td>12</td>
</tr>
<tr>
<td>Alumni</td>
<td>13</td>
</tr>
<tr>
<td>Biostatistics Working Papers Series (Berkeley Electronic Press)</td>
<td>13</td>
</tr>
<tr>
<td>Academic Calendar (AY 2016-17)</td>
<td>14</td>
</tr>
<tr>
<td>FAQs</td>
<td>15-16</td>
</tr>
<tr>
<td>Additional Useful Resources</td>
<td>17-18</td>
</tr>
</tbody>
</table>
Core Competencies

MA

• Understand foundations of statistical inference, e.g., maximum likelihood estimation, regression.
• Have grounding in theoretical framework and ability to apply existing estimators in following categories:
  o Computational statistics
  o Multivariate analysis
  o Categorical data analysis
  o Survival analysis
  o Longitudinal data analysis
  o Causal inference
  o Clinical trials
  o Statistical genomics
  o Statistical computing
• Have fluency in statistical programming languages for both analysis using classic methods and implementation of novel methods.
• Identify and apply sound and pertinent methods to address statistical inference questions in biological, public health, and medical research.
• Effectively communicate research findings, orally and in writing.

PhD (in addition to above)

• Develop and apply sound and pertinent methods to address statistical inference questions in biological, public health, and medical research.
• Be able to place scientific questions in rigorous statistical framework:
  o Understand and have the ability to apply methods and list assumptions for identifying statistical estimands that address scientific question of interest.
  o Be able to either develop estimators for above, or to recognize when such estimands have been developed and have the ability to apply them.
  o Have working knowledge of computational methods and programming languages that can be used to implement or evaluate novel methods.
• Have ability to teach statistics at the university level.
INTRODUCTION:
This guide aims to provide information and counsel for the pursuit of a graduate degree in Biostatistics at the University of California, Berkeley. This document does not cover all regulations pertaining to graduate studies at UC Berkeley. Other sources that may be consulted for such information include the following websites:

Biostatistics: http://www.stat.berkeley.edu/biostat
Graduate Division: http://grad.berkeley.edu
Cal Student Central: http://studentcentral.berkeley.edu
General Catalog: http://bulletin.berkeley.edu/courses/

Collecting and exploring relevant data address many issues in the biological, health, and medical sciences. The development and application of techniques to better understand such data is the fundamental concern of the Graduate Group in Biostatistics at the University of California, Berkeley. Core methodological research interests include loss-based estimation (e.g., classification, regression, density estimation, variable selection), semi-parametric estimation, cross-validation, multiple hypothesis testing, survival analysis, clinical trials, adaptive designs, causal inference, and statistical computing. Areas of application include genetics, molecular biology, epidemiology, and medicine.

Since the inception of the program in 1955, the Graduate Group in Biostatistics has offered academic degree programs leading to the Master of Arts (MA) and Doctor of Philosophy (PhD) degrees. The curriculum offers instruction in statistical theory and computing, as well as opportunities to rigorously apply this knowledge in biological and medical research.

Students admitted into our degree programs come from diverse disciplines. The average quantitative GRE score for enrolled students in 2013 was 163.67/89%. Graduates from the Group in Biostatistics are highly sought-after and obtain prestigious positions in academia, industry, and government.

Graduate Division Policy
All graduate students must enroll and remain enrolled in a minimum of 12 units each semester. This includes students who hold GSI/GSR appointments and those receiving fellowship funding.

DEGREE PROGRAMS:
Students admitted into the MA or PhD program typically have a strong mathematics and statistics background with a focus in the biological sciences.

The Master of Arts Degree
The MA degree in Biostatistics is completed in four semesters. Candidates for this degree are expected to earn 48 units with courses in biostatistics, statistics, public health, and biology. At least 16 units (4 courses) must be from the graduate-level 240 series of biostatistics and statistics courses. The 12-unit minimum enrollment requirement may be met with independent research or seminar courses. Students are expected to enroll for all four semesters of the program; therefore, use of the filing fee in the final semester is not an option.

Students pursuing an MA degree in Biostatistics will be expected, upon completion of the program, to be well versed in the following areas:
  • Fundamental statistical inference methods, including loss-based estimation (e.g., regression, and maximum likelihood estimation) and hypothesis testing.
  • Survival analysis.
  • Computational statistics.
  • Statistical computing.
  • Causal inference methods for complex data structures, including censored and longitudinal data.
  • Computational biology, including genetic mapping and high-throughput microarray and sequencing gene expression studies.

MA Thesis (PLAN I)
The Master’s Thesis is filed at the end of the two-year MA program. The decision to complete a thesis must be made early in the semester the student plans to graduate. Students are encouraged to solicit committee membership from among the biostatistics faculty. Requirements for the configuration of the MA thesis committee are as follows: Thesis Committee Membership consists of three faculty members, with two inside members from the Group in Biostatistics and one member from “outside” the department (e.g., Epidemiology, Bioengineering, etc.). If an outside member cannot be identified, a third member from the Group in Biostatistics is permissible. The Committee Chair must be an “inside” member (from within the Group in Biostatistics).
**MA Comprehensive Examination (PLAN II)**

Students may take the Oral Comprehensive Examination in lieu of the MA thesis at the end of the two-year MA program. The decision to take the comp exam must be made early in the semester the student plans to graduate. The Comprehensive Examination Committee is appointed by the Head Graduate Adviser, and consists of two faculty members from the Group in Biostatistics.

The MA comprehensive examination is designed to test a candidate’s breadth and depth of knowledge and understanding of material from the curriculum, as well as ability to articulate and explain basic concepts. Each examiner negotiates with the candidate a topic to explore. Candidates are expected to write a short essay on each of these topics and provide the written materials to each examiner at least three weeks before the oral exam. During the oral exam, examiners are free to question the candidate for more background, methodological detail, or examples. The comprehensive examination lasts about 90 minutes.

**Applying to the Doctoral Program**

Some students pursuing the MA degree intend to continue directly into a PhD program, while others take research positions in federal agencies, state and local health departments, health care delivery organizations, and private industry. MA students interested in continuing into the UC Berkeley Biostatistics doctoral program immediately following their MA degree should petition to add the new degree program through the Online Application for Admission during their second year of study during the normal admissions cycle.

**The Doctor of Philosophy Degree**

A PhD degree in Biostatistics requires a program of courses selected from biostatistics, statistics, and at least one other subject area (such as environmental health, epidemiology, or genomics), an oral qualifying examination, and a dissertation. Courses cover traditional topics as well as recent advances in biostatistics and statistics. Those completing the PhD will have acquired a deep knowledge and understanding of the MA subject areas. Since graduates with doctorates often assume academic research and teaching careers, a high degree of mastery in research design, theory, methodology, and execution is expected, as well as the ability to communicate and present concepts in a clear, understandable manner.

The PhD degree program requires 4-6 semesters of coursework, followed by 4-6 semesters of research to complete the qualifying examination and dissertation (in total, a minimum of four semesters of registration is required). Since there are no formal course requirements for the PhD, a program of courses appropriate to a student’s background and interests may be developed with a graduate adviser.

All students accepted into the PhD program must hold a master’s degree in biostatistics or related field. Applicants to the PhD program who do not already hold an MA, if admitted, are admitted initially to the MA degree program. This practice does not prolong the time to conferral of the doctorate, since the first two years of both the MA and PhD programs for students coming from the baccalaureate are identical.

The Graduate Division, upon recommendation of the Head Graduate Adviser, must advance a student to candidacy for the PhD. To advance to candidacy, a student must:

- Complete a recommended program of courses.
- Pass an oral qualifying examination administered by a committee appointed by the Graduate Division.
- Satisfy the faculty member who is expected to be the dissertation committee chair of an ability to perform original research.

**PhD Qualifying Examination**

The primary purpose of the oral qualifying examination is to test both a candidate’s general competence in statistical theory and the ability to apply statistical methods to a subject-matter area. The exam is designed to measure breadth and depth of knowledge, as well as provide a determination of the candidate’s readiness to enter the research phase of study. To assure the examining committee that the candidate has both a firm grasp of statistical foundations and familiarity with current statistical foundations and familiarity with current problems in the field, the examination is conducted as follows:

1. The candidate is expected to begin with a 45-minute presentation of a dissertation topic, including a review of previous work and the proposal of a sound research strategy.

2. Following this presentation, the candidate is asked to demonstrate an ability to synthesize the methods learned through courses and to soundly
apply this knowledge to areas and problems suggested by committee members. To achieve this goal, committee members are likely to ask questions that delve into subjects that go beyond the chosen area of dissertation research.

The committee for the PhD Qualifying Examination consists of four faculty members (3 “inside” members and 1 “outside”). At least two inside members must be core biostatistics faculty, one additional “inside” member must be faculty from another department but still a member of the Graduate Group in Biostatistics (for a list of core faculty and faculty who are members of the Graduate Group in Biostatistics please refer to page 8-9), and one “outside” member. The outside member must belong to the UC Berkeley Academic Senate (i.e., may not be an adjunct or clinical faculty or a lecturer) and may not be a member of the Group in Biostatistics (per list mentioned above). The chair of the qualifying examination committee must be a member of the Group in Biostatistics. Additionally, the chair of the qualifying examination committee may not serve as chair of the dissertation committee, though it is expected that the proposed chair of the dissertation committee will serve on the qualifying examination committee. The Graduate Division must approve this committee at least three weeks prior to the exam itself.

The candidate should meet with the chair of the qualifying examination committee to discuss the structure of the exam and any other pertinent issues. To be eligible for the examination, a student must have a grade-point average of at least 3.0. The examination is scheduled for three hours.

PhD Dissertation Committee

The candidate’s research is conducted under the guidance of a dissertation committee that consists of three faculty members, with two “inside” members from the Group in Biostatistics and one member from “outside” the department (e.g., Epidemiology, Bioengineering, etc.). The committee chair, which must be a member of the Group in Biostatistics, is primarily responsible for supervising the student’s research progress. The dissertation committee must be in place at the time the student submits the Application for Candidacy to the Graduate Division.

Preparation of the PhD Dissertation

It is important for the student to meet regularly with the chair and other members of the dissertation committee. All members of the committee should approve the dissertation before it is put into final form. Instructions on the preparation and submission of the dissertation are available from the Graduate Division. The student is responsible for following these instructions, including obtaining all signatures of approval, and should allow ample time to complete all requirements well before the date when s/he plans to file the dissertation. A PDF file of the final version of the dissertation should be provided to the Group in Biostatistics.

Designated Emphasis

Students enrolled in the PhD program are eligible to apply for interdisciplinary study in a designated emphasis. A designated emphasis for the PhD degree is the analogue of a minor in baccalaureate programs. The Group in Biostatistics, in conjunction with other departments on the Berkeley campus, offers a Designated Emphasis in Computational and Genomic Biology (http://ccb.berkeley.edu/academics/designated-emphasis/) and a Designated Emphasis in Computational Science and Engineering (http://cse.berkeley.edu). Students should apply to the DE several months in advance of the Qualifying Examination, which must include at least one member of the DE Group Faculty.

FINANCIAL SUPPORT:

Admitted students are eligible for various types of financial support, including campus fellowships and funding from the Graduate Group in Biostatistics. Entering students may apply for campus fellowships as part of their initial application for admission. Students interested in teaching or research positions may apply directly to the Group in Biostatistics. Information on other sources of financial aid, such as loans and the work-study program, is available through the Financial Aid and Scholarships Office (http://students.berkeley.edu/finaid). Students should not rely on receiving financial support unless a specific award is offered before arrival at Berkeley.

For domestic students (US citizens and permanent residents), the main application for financial aid is the FAFSA (Free Application for Federal Student Aid) and students should be aware of deadlines for initial submission and renewal. It is important that all students submit a
The membership of the Graduate Group in Biostatistics is as follows (**Core Biostatistics Faculty):
Peter J. Bickel [Statistics] Non-parametric inference, asymptotic methods

David R. Brillinger [Statistics] Time series in biology

Perry de Valpine [Environmental Science, Policy, and Management] Statistical methods in ecology

**Sandrine Dudoit, Chair and Head Graduate Adviser** [Biostatistics and Statistics] Loss-based estimation, multiple hypothesis testing, cross-validation, statistical computing, applications of statistics to biomedical and genomic research, such as high-throughput microarray and sequencing gene expression studies

Haiyan Huang [Statistics] Bioinformatics, distributional approximation

**Alan E. Hubbard, Head of the Division** [Biostatistics] Survival analysis, censored and longitudinal data, causal inference

**Nicholas P. Jewell** [Biostatistics and Statistics] Sampling, survival analysis, HIV/AIDS, epidemiological data analysis, genomics

Michael J. Klass [Statistics] Approximations, random vectors

**Lexin Li** [Biostatistics] Neuroimaging data analysis, networks data analysis, personalized recommendation

**John M. Marshall** [Biostatistics and Epidemiology]

Rasmus Nielsen [Integrative Biology and Statistics] Population genetic analysis, genomics of natural selection

Lior Pachter [Mathematics, MCB, and EECS] Applications of high-throughput sequencing to RNA biology

**Maya Petersen** [Biostatistics and Epidemiology] Causal inference in clinical data, dynamic treatment regimes, HIV

Elizabeth Purdom [Statistics] Bioinformatics, High-dimensional data analysis

Sophia Rabe-Hesketh [Education] Generalized linear mixed models and latent variable models

John Rice [Statistics] Applied statistics, stochastic problems in neurophysiology

**Steve Selvin** [Biostatistics and Epidemiology] Data analysis of epidemiologic problems

Yun S. Song [Statistics and EECS] Mathematical population genetics, computational biology, bioinformatics, applied probability and statistics

Terence P. Speed [Statistics] Applied statistics

**Mark J. van der Laan** [Biostatistics and Statistics] Semi-parametric methods, targeted minimum loss-based estimation, machine learning, causal inference, survival analysis, censored and longitudinal data, computational biology, applications in epidemiology

Bin Yu [Statistics] Machine learning, classification and unmixing in remote sensing, network tomography, Minimum Description Length (MDL) principle

Graduate Advisors

Upon enrollment, every student is assigned a graduate advisor, chosen among the faculty of the Group in Biostatistics. This advisor often changes to accommodate the student’s interests, once engaged in thesis or dissertation research. It is the responsibility of the graduate advisor to assist the student in developing an optimal training program that meets the requirements for the desired degree and also provides sufficient flexibility to match the student’s background and objectives. It is especially important that there be good communication between a student and the graduate advisor, so that, in planning a course of study, the advisor has a clear understanding of the student’s needs and interests. If, for any reason, a student is dissatisfied with the assigned advisor, it is possible to change to another.

Teaching Program Faculty

Though not part of the Group in Biostatistics, the faculty listed below play an important part in the training program.

Clinical Faculty in Biostatistics

- Deryk Van Brunt - Health informatics

Lecturers in Biostatistics

- Maureen Lahiff – Applied multivariate methods; Time series
- David Lein – Statistical computing; SAS
**Affiliated UCSF Faculty**

The faculty from the Department of Epidemiology and Biostatistics at the University of California, San Francisco are potential sources of thesis and dissertation topics and research assistantships. Faculty from the UCSF campus who are affiliated with our group include:

- **Peter Bacchetti** – Promoting good statistical practices; survival analysis methods; Statistical methods for HIV and liver disease
- **Su-Chun Cheng** – Survival analysis; Design and analysis of clinical trials; Collaborative research in cancer and AIDS
- **John M. Neuhaus** – Methods for longitudinal and clustered data
- **Katherine S. Pollard** – Statistical Genomics
- **Mark R. Segal** – Survival analysis; Longitudinal data; Computer intensive methods
- **Stephen C. Shiboski** – Applications of statistics to problems in infectious disease epidemiology; Nonparametric approaches to survival analysis

**CURRICULUM:**

The curriculum in Biostatistics involves courses from a wide variety of areas spanning the mathematical and biological sciences. The core to this curriculum includes: loss-based estimation (e.g., classification, regression, density estimation, variable selection), semi-parametric estimation, cross-validation, multiple hypothesis testing, survival analysis, clinical trials, adaptive designs, causal inference, and statistical computing. Courses in the biomedical sciences, such as epidemiology, genetics, and microbiology, are also part of the curriculum and are fundamental for an understanding of subject-matter issues. All courses taught at UC Berkeley are listed and described in the General Catalog (http://www.berkeley.edu/catalog); course times and locations are given in the Schedule of Classes (http://schedule.berkeley.edu).

**Biostatistics Core Courses**

Students are expected to take Statistics 201A and 201B and at least four courses from the Public Health C240 series (A, B, C, D, E, and F). This requirement may be waived for students who have had coursework in these subject areas before entering the program and who will want to take advantage of more advanced course offerings (e.g., STAT 210A and 210B). A program of courses tailored to suit each student's background and interests may be arranged with a graduate advisor.

Courses in the Biostatistical Methods PB HLTH C240 series (A, B, C, D, E, and F) are designed to introduce students to basic concepts as well as cutting-edge topics. These courses are cross-listed in the STAT C245 series. Part A concerns fundamentals of biostatistical theory and practice; Part B survival analysis; Parts C & D computational statistics with applications in biology and medicine; Parts E and F statistical genomics.

Courses in the Special Topics in Biostatistics PB HLTH 243 series cover a wide range of topics corresponding to specific faculty interests and expertise. One goal of these courses is to introduce students to current issues that might potentially lead to dissertation projects. Topics presented and course format will depend on instructor preference.

In addition to the core Biostatistical Methods PB HLTH C240 series, the following is a non-exhaustive selection of courses of interest to Biostatistics students.

**Theoretical and Applied Statistics Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 152</td>
<td>Sampling Surveys</td>
</tr>
<tr>
<td>STAT 201A, B</td>
<td>Introduction to Probability and Statistics at an Advanced Level</td>
</tr>
<tr>
<td>STAT 204</td>
<td>Probability for Applications</td>
</tr>
<tr>
<td>STAT C205A, B</td>
<td>Probability Theory</td>
</tr>
<tr>
<td>STAT 210A, B</td>
<td>Theoretical Statistics</td>
</tr>
<tr>
<td>STAT 215A, B</td>
<td>Statistical Models: Theory and Application</td>
</tr>
<tr>
<td>STAT 230A</td>
<td>Linear Models</td>
</tr>
<tr>
<td>STAT 232</td>
<td>Experimental Design</td>
</tr>
<tr>
<td>STAT 240</td>
<td>Non Parametric and Robust Methods</td>
</tr>
<tr>
<td>STAT C241A</td>
<td>Statistical Learning Theory</td>
</tr>
<tr>
<td>STAT 272</td>
<td>Statistical Consulting</td>
</tr>
<tr>
<td>PB HLTH C246A</td>
<td>Censored Longitudinal Data and Causality</td>
</tr>
<tr>
<td>EDUC 275G</td>
<td>Hierarchical and Longitudinal Modeling</td>
</tr>
</tbody>
</table>
Additionally, a variety of special topics courses are offered each year.

**Computing Courses**

- STAT 133 Concepts in Computing with Data
- STAT 243 Introduction to Statistical Computing
- STAT 244 Statistical Computing
- PB HLTH 144A Introduction to SAS Programming
- PB HLTH 144B Intermediate SAS Programming

**Epidemiology Courses**

- PB HLTH 250A, B, C Epidemiologic Methods & Theory
- PB HLTH 252 Statistical Analysis Epidemiologic Data
- PB HLTH 252D/E Causal Inference I & II
- PB HLTH 254 Occupational and Environmental Epidemiology

**Seminars and Variable Unit Courses**

Enrollment in many of these courses requires approval of the faculty member in charge.

- PB HLTH 295 Statistics & Genomics Seminar
- PB HLTH 296 Special Study
- PB HLTH 299 Independent Research
- PB HLTH 375B Instructional Techniques in Biostatistics
- STAT 278B Statistics Research Seminar
- STAT 298 Directed Study for Graduate Students
- STAT 299 Individual Study Leading to Higher Degrees

**Additional Courses**

Other departments where biostatistics students find many relevant courses include: Mathematics (analysis, differential equations, and linear algebra), Molecular and Cell Biology (computational biology, genetics, molecular biology), and Computer Science (optimization, parallel computing).

**COMPUTING:**

Computing is an integral part of modern biostatistics and students have access to all University computing resources, which creates a vast and diverse computing environment.

**Biostatistics Computing Facility**

The Division of Biostatistics provides biostatistics students with an environment tailored for statistical computing. The core to the Biostatistics Computing Facility is a high performance computing cluster producing a state-of-the-art UNIX computing environment, equipped with statistical computing software such as R, SAS, FORTRAN, OpenMPI, and many subroutine libraries, as well as the necessary printers, servers, and disk storage. All Biostatistics students may open accounts. Contact Burke Bundy (burke@berkeley.edu) for additional information.

**School of Public Health Computing Facilities**

Also available is the joint School of Public Health/School of Social Welfare computing facility which is comprised of PCs. Ten of these machines are available at all times in Room 340B Haviland Hall and those in the instructional laboratory in Room 340A are available during non-teaching hours. For more information about School of Public Health computing facilities, see the SPH Instructional Computing website (http://socrates.berkeley.edu/~sphinstr/) or contact David Lein (dlein@berkeley.edu).

**STUDENT INFORMATION:**

Currently, there are 39 students pursuing degrees in Biostatistics, 23 working toward an M.A. degree and 16 working toward a Ph.D.

A large number of our graduates have gone on to research and teaching careers at colleges and universities, both here in the US and internationally. Others have pursued careers in the pharmaceutical/biotech industries, at health care delivery organizations, at the Veteran's Administration, and at medical schools and schools of public health across the US and abroad. The demand for biostatisticians with advanced training is high, particularly for those seeking teaching and research careers.
Over 180 students have graduated with master’s degrees and many of these graduates have also completed doctoral programs either here at UC Berkeley or at other universities. Those who have not gone on for doctoral training have had no difficulty obtaining positions at such organizations as Kaiser Division of Research, The California Birth Defects Monitoring Program, Genentech, Amgen, and other biomedical and pharmaceutical research firms.

**Biostatistics Graduate Student Association**

We are pleased to bring to your attention the **Biostatistics Graduate Student Association (BSGSA)**. Led by Co-Presidents: Courtney Schiffman and Mary Combs, this association has been a very valuable resource for graduate students and has organized a variety of academic and social events, including alumni panels and career information sessions with local biotechnology companies.

**Cal Student Central**

Save time, get answers! One destination for student billing, financial aid, and registration.  
**Website:** [http://studentcentral.berkeley.edu](http://studentcentral.berkeley.edu)  
**Phone:** 510-664-9181  
**Address:**  
120 Sproul Hall, Berkeley, CA 94720  
**Hours:** Monday - Friday 9:00 am - 4:00 pm  
(phones closed Noon – 1:00 pm)  
**E-mail:** Use web form  
[http://studentbilling.berkeley.edu/ebill/](http://studentbilling.berkeley.edu/ebill/)

**Biostatistics Student’s Office Space**

Shared office space in **439 Evans Hall** is provided to Biostatistics doctoral students as a courtesy of the Department of Statistics. Since space has become very limited, we regret that we cannot generally offer such facilities to MA students. If interested in office space, please contact Sharon Norris ([sharon_n@berkeley.edu](mailto:sharon_n@berkeley.edu)) she will assess space availability and add your name to the waitlist.

**Biostatistics Student Lounge**

Room **114 Haviland Hall** is the Biostatistics Student Lounge. It has wireless Internet access for use with personal laptops. The room is outfitted with couches, chairs, conference table, water cooler, a small refrigerator and a Kuerig machine. Also, day-lockers are provided for students to secure laptops or other valuables (students must bring their own lock). We do not encourage leaving items overnight. The door to 114 has a keypad lock, keypad combination is 118250.

**Mailboxes**

Student mailboxes are located in the brown cabinets in the hallway between rooms 111 and 113 Haviland Hall. Both the biostatistics and epidemiology graduate students use the cabinet for mail. Mailboxes are arranged by degree and then alphabetically. If space is limited, you might have to share a box (two students to each box). The mailboxes will be used for the majority of your student mail. **All personal mail and large items should be sent to your residence, including any of the professional journals to which you might subscribe.**

Use the following mailing address:

Your Name  
Division of Biostatistics  
101 Haviland Hall, MC 7358  
Berkeley, CA 94720

**Campus E-mail and Calendar**

All registered students are eligible for, and are required to have, a bConnected account — your official campus email, calendar, and document sharing account. Your campus email address is based on your online identity (your CalNet ID followed by @ berkeley.edu), and it will be used by professors, departments, and university administration to send you important information on registration status, enrollment, financial aid, and class assignments. Your calendar is used for scheduling meetings, office hours, etc. Your bConnected account comes with 30GB of data storage.

To create your official UC Berkeley e-mail account, visit [http://bconnected.berkeley.edu](http://bconnected.berkeley.edu).

Once your berkeley.edu e-mail account is set up, update your UC Berkeley official e-mail listing in the CalNet Directory:  

Your official e-mail address, @berkeley.edu, will be used for communication related to your studies at UC Berkeley.

**CAL CENTRAL – Course Enrollment**

The CAL CENTRAL ([calcentral.berkeley.edu](http://calcentral.berkeley.edu)) course enrollment system for fall and spring semester courses allows students to enroll in courses and make subsequent changes to their enrollment. **All students are required to carry 12 units each semester.** In addition to regular lecture courses, a student may also enroll in individual study/research courses (PB HLTH 298 and 299) with approval of the instructing faculty (there are multiple PB HLTH 298 and 299 courses offered, be sure to register using the correct Course Number (CN) assigned to the
faculty from which you wish to take the course) and seminars and can earn units while being employed as a GSI through such courses as PB HLTH 375B.

Students in the MA degree program should note that a minimum number of units must be completed for the degree and a reduced course load could result in a prolonged degree program.

**bCourses** is Berkeley’s Learning Management System (LMS) powered by Canvas. It is an online system specifically designed for the delivery and communications of course content, online engagement between students and instructors, and the management of student work in support of face-to-face and hybrid classes. Please visit [https://bcourses.berkeley.edu](https://bcourses.berkeley.edu) to create a site.

**Berkeley Electronic Press**, simply called ‘bepress’ ([http://www.bepress.com](http://www.bepress.com)), was built by scholars to serve the needs of scholars. In the late 1990’s, academic journals were plagued by slow turnaround times, limited access, and unreasonable prices. Publishers wanted to maximize profits, while editors wanted to maximize readership and share ideas. In 1999, UC Berkeley Professors Robert Cooter, Aaron Edlin, and Ben Hermalin banded together to launch a sustainable alternative, bepress, which also set out to provide authors and universities with a solution for them to share their research openly and widely. Thus bepress pioneered Digital Commons, a software service that is now the leading hosted institutional repository (IR).

**Biostatistics Working Papers Series**

A complete list of biostatistics technical reports can be viewed at [http://www.bepress.com/ucbbiostat/](http://www.bepress.com/ucbbiostat/)

**Instructions for Submission**

The following items should be submitted in **plain text**, i.e., no italics, bolding, formulas, or symbols, in the **body** of an e-mail message to biostat@berkeley.edu.

1. **Title of the paper.**
2. **Authors:** Include affiliation and e-mail address of the first author if it is not you. The first author will receive e-mail regarding status of the submission.
3. **Keywords or phrases:** Up to six, separated by commas.
4. **Abstract:** Omit any italics, bolding, formulas, or symbols.

The text of your report must be submitted in **PDF (optimized) format. Remove** title, authors, and the abstract from the text of your article. If your article includes an **acknowledgement** on page 1 (as a footnote or as part of the text or on a separate page), please move this material to the end of article, placing it before the references. **Send your PDF file as an e-mail attachment to biostat@berkeley.edu.**

**Graduate Appeal Procedure**

Procedures for handling complaints related to graduate studies at UC Berkeley are detailed on the Graduate Division website: [http://grad.berkeley.edu/policy/coursework-grading-probation-and-dismissal-policy/](http://grad.berkeley.edu/policy/coursework-grading-probation-and-dismissal-policy/)

**ALUMNI:**

The following is a brief list of recent Biostatistics PhD alumni, their dissertation title, dissertation committee chair, and current position.

Laura Balzer (2015)
“Design and Analysis of Cluster Randomized Trials with Application to HIV Prevention and Treatment”
Co-Chairs: van der Laan and Petersen
Position: Postdoctoral Fellow, Department of Biostatistics, Harvard T.H. Chan School of Public Health

Nathan Boley (2014)
“Methods for the Analysis of High Throughput Sequencing Data”
Chair: Bickel
Position: Postdoctoral Fellow, Genetics, Stanford School of Medicine

Anna Decker (2014)
“Semiparametric Prediction, Variable Importance, and Effect Estimation in Trauma Care”
Chair: Hubbard
Position: Biostatistician, Genetech, Inc.

Jingyi (Jessica) Li (2013)
“Statistical and Computational Methods for Analyzing High-Throughput Genomic Data”
Chair: Bickel
Position: Assistant Professor, Dept. of Statistics, University of California, Los Angeles
ACADEMIC CALENDAR 2016-17
http://guide.berkeley.edu/academic-calendar/

FALL 2016 SEMESTER BEGINS: Wednesday, August 17th, 2016

Convocation: Monday, August 22, 2016

Instruction Begins: Wednesday, August 24th, 2016

Academic & Administrative Holiday: Monday, September 5th, 2016

Academic & Administrative Holiday: Friday, November 11th, 2016

Non-Instructional Day: Wednesday, November 23, 2016

Academic and Administrative Holiday
Thursday, November 24th, 2015—Friday, November 25th, 2016

Formal Classes End: Friday, December 2, 2016

Reading/Review/Recitation Week:
Monday, December 5th — Friday, December 9th, 2016

Last Day of Instruction: Friday, December 9th, 2016


FALL 2016 SEMESTER ENDS: Friday, December 16, 2016

Winter Holiday (Academic & Administrative Offices Closed):
Monday, December 26, 2016—Tuesday, December 27, 2016
Friday, December 30, 2016—Monday, January 2, 2017

SPRING SEMESTER BEGINS: Tuesday, January 10th, 2017

Academic and Administrative Holiday: Monday, January 16th, 2017

Instruction Begins: Tuesday, January 17th, 2017

Academic and Administrative Holiday: Monday, February 20th, 2017

Spring Break/Recess: Monday, March 27th—Friday, March 31st, 2017

Academic and Administrative Holiday: Friday, March 31st, 2017

Formal Classes End: Friday, April 28th, 2017

Reading/Review/Recitation Week: Monday, May 1st—Friday, May 5th, 2017

Last Day of Instruction: Friday, May 5th, 2017

Final Examinations: Monday, May 8th, 2017—Friday, May 12th, 2017

SPRING SEMESTER ENDS: Friday, May 12th, 2017
Frequently Asked Questions by Current Students

1. **What is my CalNet Student Identification Number (SID)? What is my Passphrase?**
   
   Your SID is first assigned to you upon your application to the school. It will be your unique identifier throughout your career at UC Berkeley (it’s a good idea to memorize it as you will use it often). Your Passphrase will also remain the same and will be used as a password to access various resources like Berkeley’s internet system, library databases, and the Telebears and Bearfacts sites. For more information, please visit the CalNet ID website at [http://calnet.berkeley.edu](http://calnet.berkeley.edu). For more information, contact the CalNet team at: calnet-admin@lists.berkeley.edu.

2. **How do I register for classes?**
   
   To register for classes visit the CAL CENTRAL website ([https://calcentral.berkeley.edu](https://calcentral.berkeley.edu)) and log-on with your CalNet ID and passphrase. You will be able to choose courses from class schedules. Each student has an enrollment appointment phase, and registering during the earlier phases increases your likelihood of enrolling in a class. Many classes on campus are popular and will typically have waitlists. CAL CENTRAL also allows you to view your class schedule for current & previous semester. You may also request a copy of your transcript on this site. Be sure to meet with your faculty adviser or consult with Sharon Norris at 101 Haviland Hall to ensure you are fulfilling school-wide as well as program course requirements.

3. **How do I view my grades, registration status, class schedule, and financial aid information?**
   
   CALNET Central is the Berkeley website that allows you to view grades, registration, class schedules and financial aid information. You can update your personal information, accept or decline financial aid loan offers, and view your grades. To log on you will need your CalNet ID and passphrase.

4. **How do I pay my fees?**
   
   If you are receiving financial aid, or Non-Resident Supplement tuition aid, your tuition/fees will be paid directly by the School. If you have a GSR or a GSI appointment, fee remission will be applied to your billing statement mid to late August.

4a) **When is my bill due?**
   
   After the initial due date each semester, an e-bill will be produced monthly if there is an outstanding balance on your account. CalCentral ([https://calcentral.berkeley.edu](https://calcentral.berkeley.edu)) will always have the most accurate account information.

4b) **Pay online using e-check**
   
   This is the easiest and preferred method of payment. Just enter your email address and checking or savings account information. Learn more about pay online using e-check online at: [http://studentcentral.berkeley.edu/payments](http://studentcentral.berkeley.edu/payments)

4c) **Other ways to pay**
   
   If using e-check is not an option for you, we have several other payment options available. Learn more about other ways to pay. Online at: [http://studentcentral.berkeley.edu/payments](http://studentcentral.berkeley.edu/payments) Fees must be paid during Welcome Week.

5. **How do I set up my campus e-mail and calendar?**
   
   All registered students are eligible for and are required to have a bConnected account — your official campus e-mail, calendar, and document sharing account. Your campus e-mail address is based on your online identity (your CalNet ID followed by @berkeley.edu), and will be used by professors, departments, and university administration to send you important information on registration status, enrollment, financial aid, and class assignments. Your calendar is used for scheduling meetings, office hours, etc. Your bConnected account comes with 25GB of data storage.

   After the Graduate Division transfers your new student data to the registrar’s office and you have a CalNet ID, you can create a bConnected account. The first data transfer will begin in mid April and continue through the summer as students submit the Statement of Intention to Register (SIR). Go to [http://bConnected.berkeley.edu](http://bConnected.berkeley.edu) to create your bConnected account and review important campus policies for computer use, e-mail and online data security. You are responsible for communications sent to and from your @berkeley.edu address and data stored in your bConnected account.
6. Where do I get a Cal Student ID Card? How about my AC Transit Class Pass (Bus Pass)?
You can obtain a Cal Student ID Card at 110 Cesar Chavez Center in Lower Sproul Plaza Monday through Friday between 9am & 4pm. You will need a valid photo ID and your SID. The card is free, although there is a fee for replacement cards. Once you have your card you can pick up the AC Transit Class Pass there as well. Attach the sticker to your ID card and use it for unlimited rides on any AC transit bus (including the transbay bus to San Francisco). Each semester you will need a new Class Pass.

7. How can I enroll in the Student Health Insurance Plan (SHIP)?
As a Berkeley student you are automatically enrolled in SHIP unless you waive the insurance by providing proof of being enrolled in another health insurance plan. SHIP is a comprehensive insurance plan that offers 12 months of coverage anywhere in the world. Students can access primary medical care services on campus at the Tang Center through University Health Services (UHS). SHIP also covers care outside UHS, hospitalizations, and referrals to specialty care. In addition, SHIP includes dental coverage. Vision care is not included but can be accessed at a discount through the UC Berkeley School of Optometry.
For more information on SHIP visit: http://uhs.berkeley.edu/students/insurance.
For more information on UHS visit: http://uhs.berkeley.edu.
For more information on the School of Optometry visit: http://www.caleyecare.org.

8. I just moved, how do I update my personal information with the school?
Update your personal information online at Cal Central (https://calcentral.berkeley.edu)

9. I’m not currently a California resident, what steps can I take to have residency by my 2nd year?
Please make sure to inform us of your residency status. The cost of tuition is different, depending on whether or not you qualify as a resident of California. It is possible to establish California residency by your second academic year. There are strict guidelines to follow, including a maximum number of days you can be outside the state. If you are uncertain about your residency status, please visit the website of the Office of the Registrar (http://registrar.berkeley.edu/residency/legalinfo.html) or contact the Residence Deputy (510-642-5990). No other UC Berkeley personnel are authorized to supply information relative to residence requirements for tuition purposes.

10. How many units do I have to take each semester? Do I have to maintain a certain GPA?
UCB SPH requires all students to be enrolled in 12 units each semester and maintain a GPA of 3.0.
Additional Useful Resources

Graduate Division Resources and Services for Graduate Students: http://grad.berkeley.edu/students/
This website contains everything a prospective or current student needs to know about graduate study at UC Berkeley.

The UC Berkeley website
The website http://www.berkeley.edu provides links to a variety of campus resources, including: course descriptions, course schedules, Financial Aid and Scholarships Office, and most academic departments/units.

Office of the Dean of Students
(510) 642-6741 | http://sa.berkeley.edu/dean
Student advocacy, support and resources referrals. Start here when you're not sure where to go.

Graduate Student Instructor (GSI) Teaching & Resource Center: http://gsi.berkeley.edu

The Tang Center
Counseling & Psychological Services: (510) 642-9494
Urgent Care Medical Services: (510) 642-3188
Social Services: (510) 642-6074

Student Health Insurance Plan (SHIP)
For information on healthcare services and medical insurance, visit
http://uhs.berkeley.edu/students/insurance/BenefitsBerkeley.shtml
http://uhs.berkeley.edu/students/insurance/SHIP2016_17.shtml

Campus Police
http://police.berkeley.edu
(510) 642-3333; (510) 642-6760

Night Safety Shuttle and BearWALK Service:
(510) 642-7233

Child Care: http://housing.berkeley.edu/child

Gender Equity Resource Center
(510) 643-5730 | http://geneq.berkeley.edu
Resources regarding sexual assault, relationship violence, hate crimes, and bias-related incidents for women and the LGBT community.

Student Legal Services
(510) 642-3916 | http://sls.berkeley.edu
Legal advice for currently registered UC Berkeley Students

Disabled Students’ Program
(510) 642-0518 | http://dsp.berkeley.edu
Services include accommodations, academic and financial advising, assistive technology, access services, and the TRIO Program.

Student Ombuds Office
(510) 642-5745 | http://students.berkeley.edu/ombuds
Confidential sounding board to help identify possible next steps regarding campus-related conflicts or concerns.

The Center for Student Conduct
(510) 643-9069 | http://studentconduct.berkeley.edu
Report alleged violations of the Student Code of Conduct.
**Cal Rentals** helps students locate apartments and shared housing opportunities ([http://calrentals.housing.berkeley.edu](http://calrentals.housing.berkeley.edu)).

For information on housing for married students and single-parent families can be found on the **Cal Housing** website ([http://housing.berkeley.edu](http://housing.berkeley.edu)).

**International House** The website [http://ihouse.berkeley.edu](http://ihouse.berkeley.edu) provides living accommodations for both US and international students.

**Recreational Sports** [http://calbears.berkeley.edu](http://calbears.berkeley.edu)

**Sponsored Projects Office** (SPO) [http://spo.berkeley.edu](http://spo.berkeley.edu)

SPO coordinates administration of grants and contracts funded by federal and state agencies, foundations, companies, and more.

**Free Application for Federal Student Aid** (FAFSA) [http://fafsa.ed.gov](http://fafsa.ed.gov)

**Loans for Graduate Students / Financial Aid Office** (FAO) [http://students.berkeley.edu/finaid/graduates/](http://students.berkeley.edu/finaid/graduates/)

Electronic Funds Transfer: [http://eftstudent.berkeley.edu](http://eftstudent.berkeley.edu)

Emergency Preparedness: [http://oep.berkeley.edu](http://oep.berkeley.edu)

Housing: [http://housing.berkeley.edu/livingatcal/graduatestudents.html](http://housing.berkeley.edu/livingatcal/graduatestudents.html)

Parking & Transportation: [http://pt.berkeley.edu](http://pt.berkeley.edu)

Office of the Registrar: [http://registrar.berkeley.edu](http://registrar.berkeley.edu)

Residency: [http://registrar.berkeley.edu/Residency/legalinfo.html](http://registrar.berkeley.edu/Residency/legalinfo.html)

Student Visa: [http://travel.state.gov/visa/temp/types/types_1268.html](http://travel.state.gov/visa/temp/types/types_1268.html)

Tele-BEARS: [http://telebears.berkeley.edu](http://telebears.berkeley.edu)

University Library: [http://lib.berkeley.edu](http://lib.berkeley.edu)

---

**Closing note:** All rules pertaining to graduate study on the Berkeley campus are contained in a document called the **Guide to Graduate Policy**. This document should be referred to whenever exceptional issues arise and is available at [http://grad.berkeley.edu/policy/introduction/](http://grad.berkeley.edu/policy/introduction/)