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Introduction and Mission

Welcome to the Biostatistics Department at UCLA. The UCLA Division of Biostatistics was established in the beginning of 1959 in the then new School of Public Health. Among other degree programs, the division offered the Ph.D. in Biostatistics, with the first degree being awarded in 1963. The Department of Biostatistics was established in 1989 when the School of Public Health reorganized into five departments from a single school-wide departmental structure. The Department of Biostatistics was organized to carry out these goals:

1) To develop a first-rate graduate program in biostatistics filling a demonstrated need for well-trained biostatisticians.
2) To develop Biostatistical research programs responsive to the scientific problems encountered in public health and biomedicine.
3) To actively collaborate with investigators at UCLA and worldwide in the solution of health problems.

The Department today is a leader in the training of biostatisticians for universities, government and industry. Its research programs are highly respected nationally and internationally. Faculty members collaborate with investigators in an extremely large number of diverse disciplines.

Scope and Objectives

In recent years biostatistics has become one of the most stimulating areas of applied statistics. The field encompasses the methodology and theory of statistics as applied to problems in the life and health sciences. Biostatisticians are trained in the skilled application of statistical methods to the solutions of problems encountered in public health and medicine. They collaborate with scientists in nearly every area related to health and have made major contributions to our understanding of AIDS, cancer, and immunology, as well as other areas. Further, biostatisticians spend a considerable amount of time developing and evaluating the statistical methodology used in those projects. The Department of Biostatistics offers M.S. and Ph.D. degrees in Biostatistics and, through the Fielding School of Public Health, the M.P.H. and Dr.P.H. degrees with a specialization in biostatistics. All students receive a balanced education, blending theory and practice.

Opportunities in Biostatistics

A degree in biostatistics prepares the student for work in a wide variety of challenging positions in government, industry, and education. Faculty members participate in collaborative research projects in areas such as cancer, AIDS, gerontology, genetics, immunology, dentistry, medical imaging, mental health, health insurance, orthopedics, and rheumatology and air pollution. Students work with faculty as research associates during their training. This practical experience often results in co-authored publications before graduation and makes the graduates highly attractive to future employers. Our graduates have found careers involving teaching, research and consulting in fields such as medicine, public health, life sciences, survey research, and computer science. The field has undergone tremendous growth in recent years and many employers now insist on biostatistical input for nearly all their research and marketing. UCLA has a superior record in training students both at the masters and doctoral levels, and our graduates have no difficulty in finding employment suited to their training and interests.
**Graduate Degrees Offered**

M.S. in Biostatistics  
Ph.D. in Biostatistics  
M.P.H. with specialization in Biostatistics  
Dr. P.H. with specialization in Biostatistics

The M.S. and Ph.D. are research-oriented degrees while the M.P.H. and Dr.P.H. are professional degrees which emphasize Public Health applications.

The M.P.H. and M.S. degrees are typically two year programs, but can be completed in less time by well-prepared students. The M.P.H. emphasizes Public Health, exposing students to many important areas of health research. The M.S. gives the students a strong theoretical foundation, as well as applications, and is the best choice for any student planning to go on for a doctorate (Ph.D. or Dr.P.H.).

The Ph.D. degree program trains biostatisticians to solve problems in the health sciences and to develop biostatistical methodology. One of the major strengths of our program is its insistence on mathematical statistics coupled with hands-on experience in applied biostatistics. Graduates with a UCLA Ph.D. are exceptionally well prepared for academic careers and for industry and government careers.

Recently, a number of doctoral students have elected to enter the Dr.P.H. program which provides substantial statistical training in addition to public health knowledge. The Graduates from this program often pursue research careers, but generally as a member of a medical or health research team, rather than in a Statistics or Biostatistics Department. The mathematical requirements for this degree are not as rigorous as for the Ph.D.

Brief outlines of these degrees start on page 8. For more complete information regarding the degree requirements, please refer to the Fielding School of Public Health Announcement and the Graduate Division publication titled “Program Requirements for UCLA Graduate Degrees.”

The university web site [www.gdnet.ucla.edu](http://www.gdnet.ucla.edu) maintains information on degree requirements. The requirements that apply to you are those that are in effect this year and you will note this site has links for each entering class. If we change the requirements for graduate degrees after you begin your studies, you can opt for either the old or new requirements.
### Department Information

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<thead>
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<th>Name</th>
<th>Room #</th>
<th>Email</th>
<th>Phone #</th>
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<tbody>
<tr>
<td>Dept. Chair</td>
<td>Sudipto Banerjee, Ph.D.</td>
<td>51-254A CHS</td>
<td><a href="mailto:sudipto@ucla.edu">sudipto@ucla.edu</a></td>
<td></td>
</tr>
<tr>
<td>Vice Chair</td>
<td>Thomas R. Belin, Ph.D.</td>
<td></td>
<td><a href="mailto:tbelin@ucla.edu">tbelin@ucla.edu</a></td>
<td></td>
</tr>
<tr>
<td>Dept. Administrator</td>
<td>Ivonne Nelson</td>
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<td><a href="mailto:inelson@ph.ucla.edu">inelson@ph.ucla.edu</a></td>
<td>(310) 825-5370</td>
</tr>
<tr>
<td>Student Affairs</td>
<td>Roxy Naranjo</td>
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<td><a href="mailto:rlnaranjo@ph.ucla.edu">rlnaranjo@ph.ucla.edu</a></td>
<td>(310) 267-2186</td>
</tr>
<tr>
<td>Mailing Address</td>
<td>Department of Biostatistics</td>
<td>51-254 CHS</td>
<td><a href="mailto:biostat@ucla.edu">biostat@ucla.edu</a></td>
<td><a href="http://www.biostat.ucla.edu/">http://www.biostat.ucla.edu/</a></td>
</tr>
</tbody>
</table>

**Department Hours:** Monday – Friday: 8:00 - 4:00 PM
The Biostatistics Faculty

Abdelmonem A. Afifi, Ph.D., Berkeley.
Dean Emeritus and Professor Emeritus, on recall Room #: 51-239C CHS
Joint appointment with Biomathematics Phone #: (310) 825-0707
Email: afifi@ucla.edu Fax #: (310) 267-2113
Areas of Interest: Multivariate analysis, clinical trials, multi-level models and public health.

Sudipto Banerjee, Ph.D., University of Connecticut, Storrs.
Department Chair and Professor Room #: 51-254b CHS
Email: sudipto@ucla.edu Phone #: (310) 825-5916
Fax #: (310) 267-2113
Areas of Interest: Statistical modeling and analysis of geographically referenced datasets, Bayesian statistics (theory and methods) and hierarchical modelling, statistical computing and related software development.

Thomas R. Belin, Ph.D., Harvard.
Professor Room #: 51-267 CHS
Joint appointment with Psychiatry/Biobehavioral Sci. Phone #: (310) 206-7361
Email: tbelin@ucla.edu Fax #: (310) 206-7361
Areas of Interest: Missing Data, causal inference, record linkage, mental health research.

Ronald Brookmeyer, Ph.D., University of Wisconsin
Professor Room #: 51-253B CHS
Email: rbrookmeyer@ucla.edu Phone #: (310) 825-2187
Fax #: (310) 267-2113
Areas of Interest: Survival analysis, epidemic models, epidemiological methods and multidimensional longitudinal data, AIDS/HIV, and Alzheimer’s.

William G. Cumberland, Ph.D., Johns Hopkins.
Professor Room #: 51-236B CHS
Director, Biostatistics Core of CFAR Phone #: (310) 206-9621
Email: wgc@ucla.edu Fax #: (310) 267-2113
Areas of Interest: Finite population sampling, stochastic modeling, applications to cancer, AIDS, and California Health Interview Survey.

Catherine M. Crespi, Ph.D., UCLA.
Associate Professor In-Residence Room #: A2-125 CHS
Affiliation: Jonsson Comprehensive Cancer Center, Division of Cancer Prevention and Control Research Phone #: (310) 206-9364
Fax #: (310) 267-2113
Email: ccrespi@ucla.edu
Areas of Interest: Analysis of recurrent events data, group randomized trials, hidden Markov Models, and Bayesian Methods.

Dorota M. Dabrowska, Ph.D., Berkeley.
Professor Room #: 51-253C CHS
Joint appointment with Statistics Phone #: (310) 206-9624
Email: dorota@.ucla.edu Fax #: (310) 267-2113
Areas of Interest: Inference in nonparametric and semiparametric models, survival analysis, counting processes, data transformations.
**David A. Elashoff, Ph.D., Stanford.**
Professor
Room #: 21-254C CHS
Joint appointment with Medicine
Phone #: (310) 794-7835
Email: dae@ucla.edu
Fax #: (310) 267-2113
Areas of Interest: Analysis of DNA microarray data: statistical methods for computing appropriate metrics for gene expression and gene filtering algorithms to isolate differentially expressed genes, analysis of protein mass-spectrometry data, clinical research in nursing and cancer.

**Robert M. Elashoff, Ph.D., Harvard.**
Professor
Room #: AV-327 CHS
Joint appointment with Biomathematics
Phone #: (310) 825-9421
Fax #: (310) 825-8685
Areas of Interest: Survival analysis, Cancer, repeated measures analysis, clinical trials design and analysis.

**David W. Gjertson, Ph.D., UCLA.**
Professor
Room #: 15-30 Rehab Bldg
Joint appointment with Pathology
1000 Veteran Ave
Email: gjertson@ucla.edu
Phone #: (310) 206-0255
Fax #: (310) 825-7651
Areas of Interest: Statistical consulting, genetics, measurement error models.

**Steve Horvath, Ph.D., North Carolina & D.Sc., Harvard.**
Professor
Room #: 4357A Gonda
Joint appointment with Human Genetics
Phone #: (310) 825-9299
Fax #: (310) 794-5446
Areas of Interest: Statistical genetics and bioinformatics.

**Grace Kim, Ph.D., UCLA**
Assistant Professor-in-Residence
Joint appointment with Radiological Science
Room #: 924 Westwood Blvd.
Email: gracekim@mednet.ucla.edu
Phone #: (310) 794-8679
Fax #: (310) 794-8657
Areas of Interest: Classification, analysis in spatially and temporally correlated data, and pattern recognition of therapeutic response in medical imaging data.

**Martin L. Lee, Ph.D., UCLA.**
Professor
Room #: 51-236A CHS
Email: martin.l.lee@att.net
Phone #: (310) 781-3627
Areas of Interest: Robust statistical methods in Pharmacokinetics.

**Gang Li, Ph.D., Florida State.**
Professor
Room #: 51-253B CHS
Email: vli@ucla.edu
Phone #: (310) 206-5865
Fax #: (310) 267-2113
Areas of Interest: Survival analysis, analysis of receiver operating characteristic curves, nonparametric and semiparametric inference, longitudinal data analysis, statistical methods in medical imaging, ophthalmology, clinical trials, pharmaceutical statistics, and cancer.
Honghu Liu, Ph.D., UCLA
Professor
Room #: 63-037A CHS
Joint Appointment with Dentistry
Phone #: (310) 794-0700
Email: hhliu@mednet.ucla.edu
Fax #: (310) 206-2688
Area of Interest: AIDS, compliance, Application to Dental Health.

Christina Ramirez, Ph.D., Cal Tech.
Professor
Room #: 21-257 CHS
Email: cr@ucla.edu
Phone #: (310) 825-7332
Fax #: (310) 267-2113
Areas of Interest: Statistical genetics, Bayesian phylogeny, nonparametric and semi-parametric methods.

Damla Senturk, Ph.D., UC Davis.
Associate Professor In-Residence
Joint appointment with Statistics
Room #: 21-254C CHS
Email: dsenturk@ucla.edu
Phone #: (310) 206-5977
Fax #: (310) 825-6402
Areas of Interest: Regression model building for repeated measures/longitudinal data, functional data analysis and semiparametric covariate and error adjustments in regression and correlation models with applications to biomedical data.

Janet Sinsheimer, Ph.D., UCLA.
Professor
Room #: 5357C Gonda & AV-321 CHS
Joint appointment with Human Genetics & Biomathematics
Phone #: (310) 825-8002
Email: janet@mednet.ucla.edu
Fax #: (310) 825-8685
Area of Interest: Mathematical and statistical models for determining evolutionary relationships, gene mapping, and sequence variation.

Marc A. Suchard, Ph.D., UCLA.
Professor
Room #: AV-633 CHS/6-558 Gonda
Joint appointment with Human Genetics & Biomathematics
Phone #: (310)-825-0936 / 7442
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Fax #: (310) 825-8685

Catherine Ann Sugar, Ph.D., Stanford.
Professor
Room #: 51-236C CHS
Joint appointment with Psychiatry/Biobehavioral Sci./Statistics
Phone #: (310) 794-1078
Email: csugar@ucla.edu
Fax #: (310) 267-2113
Areas of Interest: Clustering, functional data analysis, classification and patterns of covariation in data, applications to HIV/AIDS, mental health, dentistry, nephrology, and particularly health services research.

Donatello Telesca, Ph.D., University of Washington
Associate Professor
Room #: 21-254 CHS
Email: dtelesca@ucla.edu
Phone #: (310) 825-6402
Fax #: (310) 267-2113
Areas of Interest: Bayesian Inference, Bayesian Model Determination, Bioinformatics, Convolution Models, Cancer Research Decision Theory, Dependent Data, Functional Data Analysis, Markov Chain Monte Carlo Methods, Non-parametric Models.

Robert E. Weiss, Ph.D., Minnesota.
Areas of Interest: Bayesian methods and computation, longitudinal data, diagnostics, graphics, hierarchical models, model selection and specification, applications to AIDS/HIV, bioinformatics, evolution and phylogeny, criminal justice, pediatric pain, community intervention studies.

**Weng Kee Wong, Ph.D., Minnesota.**
Professor
Email: wkwong@ucla.edu
Areas of Interest: Optimal design of experiments, linear models, pharmacokinetics, clinical trials, research in rheumatology, cancer control and prevention studies.

**Hua Zhou, Ph.D., Stanford.**
Associate Professor
Email: huazhou@ucla.edu
Areas of Interest: Statistical computing, numerical optimization, statistical genetics, medical imaging, applied probability, stochastic modeling of HIV and cancer stem cell dynamics.

**Emeriti**

**Abdelmonem A. Afifi, Ph.D., Berkeley.**
Dean Emeritus and Professor Emeritus

**Nancy Berman, Ph.D., American University.**
Professor Emerita

**Potter Chang, Ph.D., Minnesota.**
Professor Emeritus

**Virginia A. Clark, Ph.D., UCLA.**
Professor Emerita

**Frederick J. Dorey, Ph.D., Massachusetts.**
Professor Emeritus

**Donald Guthrie, Ph.D., Stanford.**
Professor Emeritus
Joint appointment with Psychiatry and Biobehavioral Science
Areas of Interest: Applications in mental retardation and child psychiatry, statistical computing.

**Robert I. Jennrich, Ph.D., UCLA.**
Professor Emeritus
Joint appointment with Mathematics/Statistics
Email: rj@math.ucla.edu
Area of Interest: Statistical computing.
<table>
<thead>
<tr>
<th>Department</th>
<th>Room</th>
<th>CHS</th>
<th>Phone</th>
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<tr>
<td>Office of the Dean</td>
<td>16-035</td>
<td>CHS</td>
<td>(310) 825-6381</td>
</tr>
<tr>
<td>Student Affairs Office</td>
<td>A1-269</td>
<td>CHS</td>
<td>(310) 825-5524</td>
</tr>
<tr>
<td>Biostatistics Department Office</td>
<td>51-254</td>
<td>CHS</td>
<td>(310) 825-5250</td>
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<tr>
<td>Community Health Sciences Department Office</td>
<td>36-071</td>
<td>CHS</td>
<td>(310) 825-5308</td>
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<tr>
<td>Environmental Health Sciences Department Office</td>
<td>56-070</td>
<td>CHS</td>
<td>(310) 206-1619</td>
</tr>
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<td>Epidemiology Department Office</td>
<td>71-254</td>
<td>CHS</td>
<td>(310) 825-8579</td>
</tr>
<tr>
<td>Health Policy &amp; Management Department Office</td>
<td>31-269</td>
<td>CHS</td>
<td>(310) 825-2594 &amp; 825-7863</td>
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<td>Public Health Student Association</td>
<td>41-240</td>
<td>CHS</td>
<td>(310) 206-3352</td>
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<td>Biostatistics Consulting Lab</td>
<td>A1-279</td>
<td>CHS</td>
<td>(310) 206-6346</td>
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<tr>
<td>SPH Instructional Computer Lab</td>
<td>A1-241</td>
<td>CHS</td>
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</tr>
<tr>
<td>Technology &amp; Learning Center (TLC)</td>
<td>12-077</td>
<td>CHS</td>
<td>(310) 825-3034</td>
</tr>
</tbody>
</table>
Degree Requirements

Master of Science in Biostatistics Program

Preparation for the degree
Mathematics preparation for the program should include at least two years of calculus:
  • Math 31A, B Calculus and Analytic Geometry
  • Math 32A, B Calculus of Several Variables
  • Math 33A, B Matrices, Differential Equations, Infinite Series
  • Math 115A Linear Algebra (highly recommended)

Requirements for the degree

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1. 402B - only one quarter is required.
2. 24 units of special topics courses from
   (i) Biostat 203A, 203B, 212, 214, M215
   (ii) Biostat 230-241 series
(iii) Biostat 406, 410, 411 and 413

No more than one 4 unit course from the 400 series will count towards the degree.

3. Students continuing to the PhD program are required to take Math 131A, unless previously taken. The course can be taken during any quarter of year 2 and can be substituted for a special topics course.

4. EPI/PH: 4 units of Epidemiology (100A or 200A) and 4 units of Public Health (PH 150 or HPM M242).

5. Comprehensive exam at the beginning of the second year. The exam will cover material of 200ABC and 202AB.

6. Master of Science report – A written report under the direction of a member of the Biostatistics faculty is required (while you enroll in Biostatistics 596).

Required course toward the degree **MUST** be taken on a letter grade basis (except Biostat 202B).

A written report and written comprehensive examination covering the above course material must be passed. A failed examination can be repeated only once.
Doctor of Philosophy (Ph.D.) in Biostatistics Program

Preparation for the degree
Mathematics preparation for the program should include at least two years of calculus:
- Math 31A, B Calculus and Analytic Geometry
- Math 32A, B Calculus of Several Variables
- Math 33A, B Matrices, Differential Equations, Infinite Series
- Math 115A Linear Algebra
- Math 131A Real Analysis

Requirements for the degree
For students without prior graduate work in Biostat or related area

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</table>

1. Special topics: Six 4 unit special topics courses from Bios 230-241 and Bios 270 sequence.

2. Math 131A can be taken during the whole year and does not count as a substitute for a special topics course in 1. The course can be waived if previously taken.
3. Bios 409 - must be taken during two consecutive quarters.

4. Except for year I, Bios 245 is every quarter, Bios 246 every Spring

5. EPI/PH: 4 units of Epidemiology (100A or 200A) and 4 units of Public Health (PH 150 or HPM M242).

6. Preliminary exam at the beginning of the second year. The exam covers m 200ABC and 202AB.

7. Ph.D. Advanced exam at the beginning of the third year. The exam covers 250ABC and 255 AB.

8. Oral Qualifying Examination: The student’s understanding of statistical theory and his/her ability to apply it is evaluated in this oral examination. The proposed dissertation topic is also reviewed. Passing of this examination is required before a student is officially advanced to candidacy. A failed examination may be repeated once on the recommendation of the committee.

9. Dissertation and Defense

After successfully completing a dissertation under the guidance of a Biostatistics faculty member, an oral examination defending the dissertation is required. A failed examination may be repeated once on the recommendation of the committee.

Required course toward the degree MUST be taken on a letter grade basis (except Biostat 245, 246 & 409).

Comprehensive examinations must be passed. A failed examination can be repeated only once.
PhD Program for students with prior graduate work in Biostat or a related area

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<tr>
<th>Year II</th>
<th>Special Topics</th>
<th>Special Topics</th>
<th>Special Topics</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Epi/PH</td>
<td>Epi/PH</td>
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<tr>
<td></td>
<td>Consulting 409</td>
<td>Consulting 409</td>
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<tr>
<td>245</td>
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<td>245</td>
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</tr>
</tbody>
</table>

1. Special topics: Six 4 unit special topics courses from Bios 230-241 and Bios 270 sequence.
2. Bios 409 - must be taken during two consecutive quarters.
3. Seminars Bios 245 every quarter, Bios 246 every Spring
4. EPI/PH: 4 units of Epidemiology (100A or 200A) and 4 units of Public Health (PH 150 or HPM M242).
5. Ph.D. Advanced exam at the beginning of the third year. The exam covers 250ABC and 255 AB.
6. Oral Qualifying Examination: The student’s understanding of statistical theory and his/her ability to apply it is evaluated in this oral examination. The proposed dissertation topic is also reviewed. Passing of this examination is required before a student is officially advanced to candidacy. A failed examination may be repeated once on the recommendation of the committee.
7. Dissertation and Defense
   After successfully completing a dissertation under the guidance of a Biostatistics faculty member, an oral examination defending the dissertation is required. A failed examination may be repeated once on the recommendation of the committee.

Required course toward the degree **MUST** be taken on a letter grade basis (except Biostat 245, 246 & 409).

Comprehensive examinations must be passed. A failed examination can be repeated only once.
Master of Public Health with Specialization in Biostatistics (M.P.H.)

Preparation for the degree

Mathematics preparation for the program should include at least one year of calculus:

- Math 31A, B Calculus and Analytic Geometry
- Math 32A Calculus of Several Variables

Requirements for the degree

CORE Course Requirements in Public Health (16 units)

- Com Hlth Sci 100 Behavioral Sciences and Health Education
- Env Hlth Sci 100 or 101 Introduction to Environmental Health
- Epidemiology 100 Principles of Epidemiology
- Hlt Pol & Mgnt 100 Health Services Organization

Each core course may be waived if the student has taken a similar college-level course elsewhere and can pass the waiver examination.

Year I

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>W</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>200A</td>
<td>Methods in Biostat I</td>
<td>100B</td>
<td>Basic Biostat</td>
</tr>
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</table>

Year II

<table>
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<th></th>
<th>F</th>
<th>W</th>
<th>S</th>
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</thead>
<tbody>
<tr>
<td>201A*</td>
<td>Topics in Applied Regression</td>
<td>201B*</td>
<td>Topics in Applied Regression</td>
</tr>
<tr>
<td>FSPH Core Course(EHS 100)</td>
<td>FSPH Core Course(EPI 100)</td>
<td>406 Applied Multivariate</td>
<td></td>
</tr>
<tr>
<td>400</td>
<td>Field Studies</td>
<td>Special Topics</td>
<td>595</td>
</tr>
</tbody>
</table>

Special Topics

2. 12 units of elective courses (special topics) from Biostatistics M403B, 410 through 419, 200B, 200C, and M210 through M238. Additional elective courses are
recommended and should be selected in public health, biomathematics or mathematics.

3. Field Training-The field training in an approved public health program of up to ten weeks.

4. Written Culminating Report: The written culminating report, to be approved by the course advisor should demonstrate the mastery of the material in the required courses. It should also describe how the student has selected and used biostatistical methods to assess data from a public health field study.

5. Oral Examination: The oral examination in which the student presents his/her work to a minimum of 3 members of the biostatistics faculty (including the course advisor) and answers questions concerning both the statistical methods and the specific public health applications.

*200A, B may be substituted for 201A, B in consultation with academic advisor and provided the student has suitable mathematics background.

Note: Students planning to enter the Dr.P.H. program after completing M.P.H. degree are advised that the Dr.P.H. has mathematics prerequisites which are **NOT** required for the M.P.H. (**PLEASE READ CAREFULLY** the degree description, **PLAN ACCORDINGLY**, and **DISCUSS** with your advisor.)

Required courses toward the degree **MUST** be taken on a letter grade basis (except Biostat 402B).
Doctor of Public Health with specialization in Biostatistics (Dr.P.H.)

Preparation for the degree

Mathematics and statistics preparation for the program should include at least two years of calculus:

- Math 31A, B Calculus and Analytic Geometry
- Math 32A, B Calculus of Several Variables
- Math 33A, B Matrices, Differential Equations, Infinite Series
- Math 115A Linear Algebra

Public Health preparation for the program must include the following courses (or equivalent) if Master’s degree is not in Public Health:

- Com Hlth Sci 100 Behavioral Sciences and Health Education
- Env Hlth Sci 100 or 101 Introduction to Environmental Health
- Epidemiology 100 Principles of Epidemiology
- Hlt Pol & Mgmt 100 Health Services Organization

*If you have not taken these courses, be sure to include them in the course of study after admission.

Requirements for the degree

1. Unless previously taken

- Biostatistics 202A Theoretical Principles of Biostatistics
- Biostatistics 202B Topics in Estimation
- Biostatistics 200A, B, C Biostatistics
- Biostatistics M215 Survival Analysis
- Biostatistics 250A, B Linear Models
- Biostatistics 245 Doctoral Seminar (for more info see #4)
- Biostatistics 409 Biostatistics consulting (for more info see #3)

- three graduate-level courses in Biostatistics selected with consent of advisor
  courses used for the MS degree at UCLA cannot be used here

- three courses in the 400 series selected with consent of advisor
  courses used for the MS degree at UCLA cannot be used here

2. Written Examinations

a) Dr.P.H. Preliminary Examination:

This exam is offered in September just before the beginning of fall classes. Students would generally take this exam in the beginning of their second year of graduate study.

The Dr.P.H. Preliminary Examination covers the equivalent of the following courses and is normally taken as soon as possible after having satisfactorily completing the relevant coursework.

- Biostatistics 200ABC Biostatistics
- Biostatistics 202A Theoretical Principles of Biostatistics
- Biostatistics 202B Topic in Estimation
b) **Dr.P.H. Written Qualifying Examination:**
This exam is offered in September just before the beginning of fall classes. Students would generally take the exam after completing necessary coursework, which typically occurs by the beginning of either, their 3rd or 4th year of graduate study. The scope of the exam includes material from the following courses: Biostatistics 200B, 200C, M215, 250A, 250B, M215, 406, as well as all material covered by the Dr.P.H. Preliminary Exam.

3. **Breadth Requirement**

   a) Students must take a minimum of 24 units, selected with the consent of the academic advisor, in the 200 or 400 level courses from at least two Fielding School of Public Health departments other than Biostatistics.

   b) The School also requires students to select an additional area of concentration. Biostatistic students fulfill this requirement by enrolling in Biostatistics 409 (doctoral statistical consulting seminar: field training course) for 3 consecutive quarters. This requirement must be met prior to advancement to candidacy.

4. **Doctoral Seminar**

All doctoral students must register for Biostatistics 245, advanced seminar, every quarter and attend regular weekly seminars scheduled by the Department. At least once each year, each student will present a seminar.

5. **Oral Examinations and Dissertation**

   a) **Oral Qualifying Examination**
   The student’s understanding of statistical theory and his/her ability to apply this knowledge to problems in health research is evaluated in this oral examination. The proposed dissertation topic is also reviewed. Passing of this examination is required before a student is officially advanced to candidacy. A failed examination may be repeated once on the recommendation of the committee.

   b) **Dissertation and Defense**
   After successfully completing a dissertation under the guidance of a Biostatistics faculty member, an oral examination defending the dissertation is required. A failed examination may be repeated once on the recommendation of the committee.

Required courses toward the degree **MUST** be taken on a letter grade basis (except Biostat 409 & 245).

Comprehensive examinations must be passed. A failed examination can be repeated only once.
2016-2017 Biostatistics Class Schedule

Instructor

Fall 2016

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biostat 100A</td>
<td>Introduction to Biostatistics</td>
<td>D. Gjertson</td>
</tr>
<tr>
<td>Biostat 200A</td>
<td>Biostatistics</td>
<td>R. Brookmeyer</td>
</tr>
<tr>
<td>Biostat 201A</td>
<td>Topics in Applied Regression</td>
<td>T. Belin</td>
</tr>
<tr>
<td>Biostat 202A</td>
<td>Theoretical Principles of Biostatistics</td>
<td>D. Senturk</td>
</tr>
<tr>
<td>Biostat 213</td>
<td>Computational Methods</td>
<td>C. Ramirez</td>
</tr>
<tr>
<td>Biostat M215</td>
<td>Survival Analysis</td>
<td>G. Li</td>
</tr>
<tr>
<td>Biostat 234</td>
<td>Applied Bayesian Inference</td>
<td>R. Weiss</td>
</tr>
<tr>
<td>Biostat 235</td>
<td>Casual Inference</td>
<td>T. Belin</td>
</tr>
<tr>
<td>Biostat 245</td>
<td>Advanced Seminar in Biostatistics</td>
<td>R. Brookmeyer</td>
</tr>
<tr>
<td>Biostat 250A</td>
<td>Linear Statistical Models</td>
<td>W. Wong</td>
</tr>
<tr>
<td>Biostat 255</td>
<td>Advanced Topics &amp; Probability in Biostatistics</td>
<td>D. Dabrowska</td>
</tr>
<tr>
<td>Biostat 273</td>
<td>Classification and Regression Trees (CART) and Other Algorithms</td>
<td>C. Ramirez</td>
</tr>
<tr>
<td>Biostat 402B</td>
<td>Biostatistical Consulting</td>
<td>Fei Yu</td>
</tr>
<tr>
<td>Biostat M403A</td>
<td>Computer Management of Health Data</td>
<td>Fei Yu</td>
</tr>
<tr>
<td>Biostat 409</td>
<td>Doctoral Consulting Seminar</td>
<td>D. Gjertson</td>
</tr>
</tbody>
</table>

Course Schedule for winter 2017 and spring 2017 will be available soon.

The courses below may be used as a Special Topic.

You will need approval from your academic advisor and Department Chair. Approval (via blue petition) should be obtained before enrolling in the course not after.

Fall
Statistics M243 - Logic, Causation, and Probability (4)
Statistics 271 - Probabilistic Models of Visual Cortex (4)

Winter
Statistics 242 - Multivariate Analysis with Latent Variables (4)

Spring
Statistics 218 - Statistical Analysis of Networks (4)
Statistics C261 - Introduction to Pattern Recognition and Machine Learning (4)
UCLA Calendar

Highlights from UCLA Annual Calendar 2016-2017

Students are responsible for observing the following dates and deadlines as published by the Registrar's Office. Anything submitted or requested as an exception to a published deadline is subject to a PENALTY fee.

The calendar below and other academic calendars up to the year 2016-2017 are available online at: http://www.registrar.ucla.edu/Calendars/Annual-Academic-Calendar

Fall Quarter 2016
Quarter begins  Monday, September 19
Instruction begins  Thursday, September 22
Study List deadline (becomes official)  Friday, October 7
Veterans Day holiday  Friday, November 11
Thanksgiving holiday  Thursday-Friday, November 24-25
Instruction ends  Friday, December 2
Common final exams  Saturday-Sunday, December 3-4
Final examinations  Monday-Friday, December 5-9
Quarter ends  Friday, December 9
Christmas holiday  Friday, December 23; Monday, December 26
New Year’s holiday  Friday, December 30; Monday, January 2
Winter campus closure (tentative)  December 27-29

Winter Quarter 2017
Quarter begins  Wednesday, January 4
Instruction begins  Monday, January 9
Martin Luther King, Jr, holiday  Monday, January 16
Study List deadline (becomes official)  Friday, January 20
Presidents’ Day holiday  Monday, February 20
Instruction ends  Friday, March 17
Common final exams  Saturday-Sunday, March 18-19
Final examinations  Monday-Friday, March 20-24
Quarter ends  Friday, March 24

Spring Quarter 2017
Quarter begins  Wednesday, March 29
Cesar Chavez holiday  Friday, March 31
Instruction begins  Monday, April 3
Study List deadline (becomes official)  Friday, April 14
Memorial Day holiday  Monday, May 29
Instruction ends  Friday, June 9
Common final exams  Saturday-Sunday, June 10-11
Final examinations  Monday-Friday, June 12-16
Quarter ends  Friday, June 16
STUDENT AFFAIRS

BIOSTATISTICS STUDENT AFFAIRS OFFICE
The Student Affairs Officer for the Biostatistics Department is Roxy Naranjo. Her office room number is 51-236A CHS, phone number is (310) 267-2186 and her email is rlñaranjo@ph.ucla.edu. If you have any questions pertaining to your graduate study here at UCLA, do not hesitate to email her or stop by the office during office hours.

FIELDING SCHOOL OF PUBLIC HEALTH STUDENT AFFAIRS OFFICE
The school-wide Student Affairs Office provides oversight and guidance of school-wide and departmental graduate program affairs, including admissions processing, degree processing, class scheduling, funding, orientation and graduation preparations, and general counseling to prospective, new and continuing students. Hours and Location: Monday-Friday 10:00am-3:00pm. Room A1-269 Center for Health Sciences (A-floor). Phone Number: (310) 825-5524.

COURSE SCHEDULE AND CLASSROOMS
Please visit https://sa.ucla.edu/ro/public/soc/ for course schedule and room assignments.

Registration
Enrollment and Degree Services
1113 Murphy Hall
(310) 825-1091
http://www.registrar.ucla.edu
Registration consists of paying fees and enrolling in classes.
1. Registration fees and other University charges are due the 20th of each month. BAR (Billing and Receivable) accounts can be viewed through MY UCLA.
2. Enrollment in classes is completed via MY UCLA.
Students must complete both processes by the established deadlines to be officially registered and enrolled for the term.

Graduate students must be either registered & enrolled or on an official leave of absence every term until their degrees are awarded. As an exception, certain graduate students may be eligible to pay the filing fee (see below). Failure to register or be on an official leave of absence for any term constitutes withdrawal from UCLA.

Paying Fees/Non-Resident Tuition
Your registration fees (and non-resident tuition, if applicable) are due via your BAR account by September 20 (fall quarter), December 20 (winter quarter) and March 20 (spring quarter). Credit card payments may be made online using MY UCLA. If registration fees are not paid in full by the payment deadline, a $50 late registration fee is assessed and classes are dropped in accordance with the drop class deadline.

More details on fee payment, enrollment procedures, and deadlines are in the Registrars website at http://www.registrar.ucla.edu.
eBill
BAR accounts are administered electronically (eBill) through MY UCLA. Monthly financial activity is displayed for the current month as well as past account activity for the last 24 months. MY UCLA also includes a link to the Student Financial Services website (http://parents.ucla.edu/financial-services) where students can find important communications from the University regarding registration and University policies. Students can pay their BAR account electronically using Visa, MasterCard, PULSE, NYSE, STAR, Discover, or American Express. Students can also print a remittance document from the eBill webpage and mail payments with a check or money order. UCLA converts checks into electronic payments.

ENROLLING IN CLASSES
The Schedule of Classes (https://sa.ucla.edu/ro/public/soc/) contains listings of class times, meeting rooms, instructors, and all information necessary for enrolling in classes. Use the Schedule and academic counseling to assemble a program of courses.

MY UCLA ENROLLMENT
Students enroll in classes at My UCLA. The site walks students through the enrollment procedure. Students are assigned specific times—called appointments—when they are allowed to enroll. Use MY UCLA to determine enrollment appointments.

Also use MY UCLA for other enrollment-related tasks, such as adding, dropping, or exchanging classes, signing onto the wait list for a class and checking waitlist status, or changing the grading basis for a class.

Enrollment Deadlines
The deadlines are always on Friday of the following weeks of every quarter:
Week 2: Enrollment in all coursework.
Week 3: Fee charged for changes regarding adds, drops, and grading basis.
Week 10: Additional fee charged for adds and for drops and grading basis changes.
After week 10, requesting retroactive add or drop any courses is a long and complicated procedure with NO guarantee of approval. Make sure you check your enrollment and print out your study list so you can check the correct courses and faculty.
**LEAVE OF ABSENCE**

Continuing graduate students in good academic standing (3.0 GPA or above) who have completed at least one quarter of academic residence at UCLA, may petition to take a leave of absence. The leave must be approved by the student’s home Department and the Graduate Division. Graduate students are allowed a maximum of three quarters of official leave of absence.

Federal policy governing students on F-1 and J-1 visas restricts leaves of absence to certain conditions. Therefore, the Dashew Center for International Students and Scholars, in consultation with the Graduate Division, individually evaluates each international graduate student request for a leave of absence to determine that it meets federal (and University) eligibility criteria.

Students on approved leave of absence are not permitted to use faculty time or make use of University facilities for more than 12 hours since their last registration and are not eligible for apprentice personnel employment or other services normally available to registered students. There is no need to apply for readmission, since the approved leave is for readmission to a specific term. The Registrar’s Office notifies students about registration information for the returning term.

To petition for a leave of absence, students must fill out a “Lease of Absence Request” form, obtain the appropriate signatures, and submit it to the SPH Student Affairs Office. For more details on the University’s Leave of Absence policy, visit: [http://www.gdnet.ucla.edu/gasaa/library/loa.htm](http://www.gdnet.ucla.edu/gasaa/library/loa.htm)

**FILING FEE**

To be eligible to use the Filing Fee in lieu of registration, all formal requirements for the degree except for taking the final oral examination (if required), filing the dissertation/thesis or taking the comprehensive exam must be met before the first day of instruction of the term indicated below. Students may not use the Filing Fee unless they were registered for the previous academic term. For more information and form visit: [https://grad.ucla.edu/gasaa/etd/filingfee.htm](https://grad.ucla.edu/gasaa/etd/filingfee.htm)

**Master Students** - The Filing Fee may be used in lieu of registration if all formal requirements for the degree, except for filing the thesis or taking the comprehensive examination, are met prior to the first day of instruction of the term.

**Doctoral Students** - The Filing Fee may be used in lieu of registration if all formal requirements for the degree, except for taking the final oral examination (if required) and filing the dissertation, are met prior to the first day of instruction of the term. Doctoral students may use the Filing Fee Application only if they were registered for the previous academic term.

**OFFICIAL DOCUMENTS AND FORMS FROM THE UNIVERSITY AND SCHOOL**

You will receive many documents from the University stating deadlines, offering opportunities, etc. It is your responsibility to observe the deadlines, and take any action that is required. This is especially important for work-study, financial aid, traineeships, filing deadlines, etc.

For the most current deadlines and for the class schedule go to [http://www.registrar.ucla.edu/Calendars/Annual-Academic-Calendar](http://www.registrar.ucla.edu/Calendars/Annual-Academic-Calendar).

For official graduate academic information and resources go to [http://www.gdnet.ucla.edu](http://www.gdnet.ucla.edu)

**Datasheet**
Students must complete a datasheet each quarter, until graduation. The data sheet will be emailed each quarter by the Central Student Affairs office with the datasheet each quarter. Failure to complete this results in academic hold.

**Blue petitions**

A blue petition is a form submitted to explain a student’s need or desire to be exempted from any rule or regulation of the University. It is the only way to obtain formal approval from the department, the School, the Registrar or whoever has authority over the particular request. Submit all blue petitions as soon as possible during your career at UCLA.

**ACADEMIC ADVISING**

**Advising**

Students are assigned a faculty advisor prior to the beginning of their academic program. Students should initially contact their advisors to discuss their course of study and thereafter should stay in contact on a regular basis. Students are expected to meet with their advisors at least once per quarter to discuss progress, problems, and employment needs.

Students may change advisors. A blue student petition should be used for this request. Approval by the both faculty member and the Biostatistics Department Chair must be obtained. The petition is then submitted to the Public Health Student Affairs Office.

**ADVANCEMENT TO CANDIDACY**

**Master’s Degree**

Students who wish to graduate in the spring quarter must petition for advancement to candidacy prior to the deadline. This deadline will be announced at the graduation workshop, which will be held in February. Advancement to candidacy is a requirement for all M.S. and M.P.H. degree candidates. If you miss the workshop, petitions for advancement to candidacy can be picked up in the Student Affairs Office, Room A1-269 CHS. The forms must be completed and returned to the Student Affairs Office. Please be sure to complete all required information and follow special instructions per the direction on the forms or by the Student Affairs Office Staff.

Students who wish to graduate in the fall or winter quarters, must petition for Advancement to Candidacy prior to the end of the second week of the chosen quarter.

The Student Affairs Office regularly posts the specific deadlines.

**Doctoral Degree**

Advancement to candidacy is also a requirement for students in the Ph.D. and Dr.P.H. programs. To obtain the necessary forms and policy on how to officially form your Doctoral Dissertation Committee visit: [http://www.gdnet.ucla.edu/gasaa/library/degreeinfo.htm#Doctoral](http://www.gdnet.ucla.edu/gasaa/library/degreeinfo.htm#Doctoral)

**WRITTEN EXAMINATIONS**

**Master of Science Students**

The MS Comprehensive exam is given in the beginning of the fall quarter in the 2nd year of study.

**MPH Students**

Comprehensive exams for second year MPH students are given near the end of the spring quarter (the Tuesday after Memorial Day). Past examinations are considered public. You can arrange to have a copy by emailing Roxy Naranjo at rlnaranjo@ph.ucla.edu.
Doctoral Students
Biostatistics Ph.D. Preliminary Exam and the Ph.D. Qualifying Exam are given at the beginning of fall quarter.

Biostatistics Dr.P.H. Preliminary Exam and the Dr.P.H. Qualifying Exam are given at the beginning of fall quarter.

Past examinations are considered public. You can request copies by emailing Roxy Naranjo at rlnaranjo@ph.ucla.edu.

Courses
There are very specific course requirements for our Master’s degrees. The final authority on all course requirements is the Graduate Division, and the requirements are listed on the Graduate Division web page under “Department and Majors” (“Biostatistics” heading for MS and PhD students and “Public Health” heading for MPH and DrPH students) at http://www.gdnet.ucla.edu/current.html; according to the year in which you enter the program. However, the Department Chairman can request exemptions under suitable situations. The information in this handout is informal. Advisors are expected to advise you of the requirements, but sometimes there is an area of uncertainty and you may need to clarify the problem with a blue petition.

Add/Drop courses - To enroll, add, or drop classes, students use MY UCLA. If a class is closed, or restricted, you may attempt to add the class after obtaining a Permission to Enroll Number (PTE #) from the instructor. Make sure that you have the correct 9-digit course ID number.

Course Waivers
M.P.H and Dr. P.H. students should see the schedule below for course waiver exams:
- ComHlth 100
- EvHlt 100
- Epidem 100
- Hlt Pol & Mgnt 100

For the most updated information and to sign up refer to your Public Health orientation packet and/or contact the respective departments.

To waive Biostatistics core courses, students must (1) complete a blue petition, (2) show proof that you have taken equivalent course(s) by attaching transcript(s) and syllabi to the petition and (3) pass the waiver exam.

Grading
Grade Points
Grade points per unit are assigned by the Registrar as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>4.0</td>
</tr>
<tr>
<td>A</td>
<td>4.0</td>
</tr>
<tr>
<td>A−</td>
<td>4.0</td>
</tr>
<tr>
<td>A−</td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
</tr>
<tr>
<td>B−</td>
<td>2.7</td>
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<tr>
<td>B−</td>
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<td>C+</td>
<td>2.3</td>
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<tr>
<td>C</td>
<td>2.0</td>
</tr>
<tr>
<td>C−</td>
<td>1.7</td>
</tr>
<tr>
<td>NP</td>
<td>0.0</td>
</tr>
<tr>
<td>U</td>
<td>0.0</td>
</tr>
</tbody>
</table>

24
UCLA grades for graduate students, are A, B, C, F, and I. Grade point averages are computed on the basis of 4 points for an “A”, 3 points for a “B”, 2 points for a “C”, and 0 points for an “F”. You must maintain at least a 3.0 average to avoid probation. You must also have a 3.0 average in the required courses to graduate. If you are on probation for two consecutive quarters, you are subject to dismissal from the University.

The grade “I” (Incomplete) may be assigned if you did not complete all of the course requirements and if the material you did complete was of passing quality. You must arrange for the “I” before the end of the course with the course instructor. You should have a written agreement with the instructor detailing what is needed to complete the course. Removal of the ‘I’ from the transcript, and replacement with a grade will occur upon the students’ satisfactory completion of the course work by the end of the next full term in academic residence. If the work is not completed by the next full term in residence the “I” automatically lapses to an “F” or “U” grade as appropriate. Additional supporting documentation will be required for students receiving an incomplete grade in their last quarter of enrollment.

Your grades are available through the MY UCLA Online System. After you have logged in, choose Degree Progress/Grade Report (Graduate option). Your GPA will not be updated until the end of the grading cycle, approximately 3 weeks after the quarter is over.

**STANDARDS AND PROCEDURES FOR GRADUATE STUDY AT UCLA**

General regulations concerning graduate courses, standards of scholarship, disqualifications, appeals, leaves of absence, normal progress toward degree, withdrawals and other matters can be found at:

http://www.gdnet.ucla.edu/gasaa/library/spfgs.pdf

The site also provides detailed information and sets forth general policies regarding completion of degree requirements, master's and doctoral committees, examinations and foreign language requirements.

**Study List**

UCLA refers to your class schedule as a “study list”. All UCLA students are required to have a “study list on file” - be enrolled in at least one unit - by the end of the 2nd week of classes. Any student who is not enrolled in at least one unit by the end of the 2nd week of classes will be assessed a $50 late study list fee when they attempt to enroll. Please be aware that this fee will be charged even if you paid the $50 late registration fee. After the 2nd week of classes, your student record will be “locked” out of enrollment, and you will have to (1) go to the Student Affairs Office to pick up a form, (2) get written instructors’ permission to enroll in each class at this late date and (3) submit the form, in person, to the Registrar’s Office in Murphy Hall. You will not be able to process any enrollment activities until your student record is unlocked. You can go to MY UCLA online to view your study list. Note: you can print your study list to provide proof of enrollment in class. You should check your study list each quarter to make sure that you are enrolled in classes.

**Transcripts**

One free unofficial student copy of your transcript may be obtained each quarter from the Registrar’s Office in Murphy Hall. Official transcripts for regular and summer sessions* can be ordered online through MY UCLA using a UCLA Logon ID. Official transcripts can also be ordered in person at 1113 Murphy Hall or by mail using a Transcript Order form.

**THESIS AND DISSERTATION FILING FOR DOCTORAL STUDENTS**

Visit the Graduate Division website for policy and procedures to form your Doctoral Dissertation Committee and Form needed at http://www.gdnet.ucla.edu/gasaa/library/degreeinfo.htm#Doctoral
GRADUATE STUDENT LIFE AND RESOURCES

There are many ways to enrich your time at UCLA. There are many different cultures represented on campus, in the School, and in the Department. Explore these. The School has an active student association, the Public Health Student Association (PHSA). This is a good way of learning about other Departments, and that they have many of the same concerns that we do.

The Department has 2 big social events each year. Early in the Fall Quarter, the Faculty sponsored a Welcome-to-UCLA party at the Sunset Canyon Recreation Center on campus. This is a good way to come and meet your fellow students, faculty and families. We have a pot-luck Holiday Party in which everyone brings food to share. This is held just before or the Friday of the final exams of the fall quarter. We also have a monthly pizza day. We very much want you to come to these parties - they let all of us get to know each other in a less formal atmosphere.

The Fielding School of Public Health is looking for student representatives to serve on various school-wide and departmental committees. If you are interest, please contact Dr. Banerjee by email (sudipto@ucla.edu).

The Graduate Students Association of UCLA is the graduate student government for the nearly 10,000 graduate and professional students at the University of California, Los Angeles. GSA provides services and programs for UCLA graduate and professional students, and represents those students in administrative, campus, and statewide affairs. Every graduate or professional student at UCLA is automatically a member of the Graduate Students Association. In part, this means that $13.00 of each graduate or professional student's quarterly fees goes to GSA. These funds are used to provide programs and services for graduate and professional students at UCLA. There are many opportunities for participation in GSA-related activities, including departmental graduate representation, councils, forum, or running for one of the three GSA officer positions elected every spring quarter. Some representative appointments include stipends. For more information go [http://www.gsa.asucla.ucla.edu/](http://www.gsa.asucla.ucla.edu/) or call (310) 206-8512, email: gsa@asucla.ucla.edu

Safety
The Evening Van Service provides a safe means of transportation around campus during the evening hours. The vans provide transportation between campus buildings, on-campus housing and nearby residential areas. The service is free of charge and available to all UCLA students, staff, faculty and visitors. For added safety, the vans are driven by Community Service Officers (CSOs) who carry two-way radios, providing a direct link to the UCLA Police Department.

**UCLA CSO Programs**
Email: cso@ucpd.ucla.edu | Phone: (310) 825-4774, [https://www.ucpd.ucla.edu/about-ucpd/police-community-services-bureau/community-service-officer-program](https://www.ucpd.ucla.edu/about-ucpd/police-community-services-bureau/community-service-officer-program)
STUDENT HEALTH SERVICES

Arthur Ashe Student Health and Wellness Center
All registered graduate students may use the Arthur Ashe Student Health and Wellness Center, an outpatient clinic geared to the special needs of students at UCLA. The Ashe Center offers a full range of clinical and support services, most of which are prepaid by student registration fees. The clinical staff is comprised of highly qualified doctors, nurse practitioners, and nurses.
http://www.studenthealth.ucla.edu/default.aspx

Medical Insurance Requirement / Waiving SHIP
As a condition of registration, the University requires that all graduate and professional students, including international students on non-immigrant visas, have medical insurance coverage that meets the University’s minimum requirements. Contact the Insurance Office on the fourth floor of the Arthur Ashe Student Health and Wellness Center for details regarding the campus Student Health Insurance Plan (SHIP) or regarding the campus minimum requirements.

Please visit the Arthur Ashe Health Center Website for more information regarding waiving SHIP.
http://www.studenthealth.ucla.edu/CustPages/Insurance.aspx

The Counseling Center – Counseling & Psychological Services
The cornerstone of CAPS services is our confidential individualized therapy and psychiatric care, provided by a diverse and multiculturally competent professional staff. CAPS is a warmly welcoming environment located centrally on the UCLA campus.

In addition to individual services, CAPS provides a range of programs to promote mental health, emotional resilience and wellness throughout the campus community. Our counselors work with students, parents, staff and faculty during orientation programs, in classes, at health and wellness fairs, in residence halls, at fraternities and sororities, in student community groups, and of course in our counseling center at John Wooden Center West.

Our Wellness Skills Program provides wellness workshops, time-limited skills development groups, biofeedback training, and wellness program consultations at various locations across campus.

Our counselors meet with faculty, staff and students across the campus to provide training on emotional health and wellness, and identifying and referring students with compromised stress resilience. Our 24-hour telephone access line (310-825-0768) allows students, parents and other members of our campus community to receive counseling and consultation in the use of CAPS’s many offerings.

John Wooden Center West
221 Westwood Plaza
Box 951556
Los Angeles, CA 90095-1556
(310) 825-0768

Hours of Operation
Monday through Friday
8:00 am to 5:00 pm
(Except for University holidays)

Crisis counseling available 24-hours a day by phone.
http://www.counseling.ucla.edu/
Since its founding in 1980, Writing Programs has played an important role in UCLA’s undergraduate mission. According to the General Catalog, “programs in the Humanities teach students to interpret texts with an informed sensitivity, to evaluate ideas critically, to write clearly and effectively about them, and to be able to question and discuss them with their peers.” Because we are UCLA’s chief resource for writing instruction, all Writing Programs courses help the university achieve these goals.

146 Humanities Building (next to the flagpole, formerly Kinsey Hall)
P.O. Box 951384
Los Angeles, CA 90095-1389
Campus Mail Code: 138405
Tel: 310.206.1145 Fax: 310.267.2224

Office Hours: 8:00 am - 5:00 pm

Student Affairs Officer: Catharine McGraw
Student Activities Center, Suit B11 (310) 267-4805
http://www.wp.ucla.edu/

CAREER DEVELOPMENT
The UCLA School of Public Health Career Services Office is located on the A floor of the School of Public Health.

Arlecia Powell-Halley, M.S.
Career Services Office
UCLA School of Public Health
Box 951772
Los Angeles, CA 90095-1772
Phone: 310-206-7158
Fax: 310-825-0472
Email: aphalley@ph.ucla.edu

COMPUTER AND TECHNICAL SERVICES
Academic Technology Services (ATS)
www.ats.ucla.edu
5308 Math Sciences Building
(310) 825-6635
frontdeskoi.t.ucla.edu

ENGLISH AS A SECOND LANGUAGE
All non-native speakers of English new to UCLA are required to fulfill UCLA ESL requirements by taking the English as a Second Language Placement Exam (ESLPE). Based upon performance on this examination, students may be exempt from enrolling in UCLA ESL classes, or may be required to complete one or more courses in the English 33 series. Please do not delay as failure to sit for the ESLPE results in a hold on student records. ESL course(s) are designed and intended to facilitate your studies here at UCLA. If you do not fulfill your ESL requirement, you will not be permitted to graduate. Students may only take the exam twice. Graduate students wishing to take a second exam must wait at least one quarter before retaking the placement exam. Retakes during the same quarter will not be recognized and the second of the two scores will be used for placement decision. Graduate students, who plan to work as teaching assistants (TAs) and
are nonnative English-speaking international students, are required to take the Test of Oral Proficiency (TOP), which is administered by the Office of Instructional Development.

Please refer to [http://www.wp.ucla.edu/](http://www.wp.ucla.edu/) for more information.

Students who hold a bachelor’s or higher degree from a university located in the United States or in another country in which English is both the spoken language and the medium of instruction, or who have completed at least two years of full-time study at such an institution, are exempted from the ESLPE.

**CALIFORNIA RESIDENCY**

Domestic students who are not California residents will need to establish residency to avoid assessment of nonresident tuition in subsequent years. In order to establish your residency, certain requirements must be met. For the complete details on establishing California Residency, please refer to the Registrar’s web page at [http://www.registrar.ucla.edu/faq/residencefaq.htm](http://www.registrar.ucla.edu/faq/residencefaq.htm) or call the Residence Deputy at (310) 825-1091, option 5. This is very important. Otherwise, you may have to begin paying non-resident tuition during your second year.

**COMPUTER FACILITIES/ACCESS**

The UCLA Biomedical Library: Technology & Learning Center (TLC) is the main drop-in, general computer use for Public Health students. It is located in the Biomedical Library (entrance 12-077 CHS). The TLC is open during the same hours as the library. Hours can be found posted on the front door of the Biomedical Library or at [http://www.library.ucla.edu/hours](http://www.library.ucla.edu/hours), click “Biomedical Library”.

Public Health also has an instructional computer lab which is located in the Center for Health Sciences A1-241. The lab hours are Monday through Friday 8AM to 5PM (closed on Saturdays and Sundays). This lab is not available for drop-in use.

The Biostatistics Department is very excited to offer two newly renovated office space rooms for biostatistics graduate students, A1-228 CHS and A1-227 CHS. A1-227 CHS is only available to students who have passed the written comprehensive doctoral exam. For more information regarding assignment to cubicle in any of these rooms see Student Orientation Package or Student Affairs Officer to request an application/information packet.

The Biostatistics Department has access to Hoffman2 Cluster for High-throughput computing. Please email Roxy Naranjo at rlnaranjo@ph.ucla.edu for more information.

**BRUIN ONLINE (BOL)**

Bruin OnLine (BOL) is a collection of services that provides UCLA students, faculty, and staff with e-mail, web hosting services, network connectivity (including wireless), and free software and support.

**Telephone technical support**
(310) 267-4357

**Email technical support**
consult@ucla.edu

**Walk-in consulting**
Kerckhoff Hall, Suite 124

[www.bol.ucla.edu](http://www.bol.ucla.edu)
**MyUCLA**

MyUCLA is a customized portal web page where students can access real-time class schedules, grades, campus appointments, traffic and weather information, check their UCLA e-mail account and link to campus events and resources.

www.my.ucla.edu

**BruinCard**

BruinCard is the official UCLA identification card. Many services are accessible with this card, including access to campus libraries, athletic facilities, labs, and dorms. The card can also act as a debit card for purchasing food, books, and supplies from many UCLA student stores and eating facilities around campus. Photo identification is free to all students. The replacement cost for lost/stolen cards is $23.50 charged to your BAR account.

To report a lost or stolen card you should:

1. Online - click **Suspend Card** on the left menu at website:  
   https://secure.bruincard.ucla.edu/bcw/web/Home.aspx
2. Call 310-825-2336 or 310-825-4775.
3. Email bruincard@finance.ucla.edu

  **Campus Location and Hours:**
  123 Kerckhoff Hall  
  9am - 4pm Monday-Friday

For more information go to http://www.bruincard.ucla.edu

**Student Mail/Announcements**

Biostatistics Students Mail Folders are located in 51-254 CHS as you walk into the room. Announcements and mail arriving at the Biostatistics office will be placed in your folder. Students should check their mail folders regularly.

Do **NOT** have personal mail sent to the department.

Also, students should check the bulletin boards outside the Department office for information on courses, seminars, workshops, fellowships, scholarships and job bulletins.

**Borrowing a CLICC Laptop**

Currently enrolled UCLA Students, currently employed UCLA Faculty and Staff Members, may checkout a laptop using their valid UCLA Logon and Password. Laptop borrowing privileges may be revoked or suspended based on violations of policies at the discretion of Library Administration.

Please visit http://www.library.ucla.edu/powell/clicc-laptop-lending-powell-library for CLICC laptop lending locations.
OFFICE FOR STUDENTS WITH DISABILITIES (OSD)

How to register with the OSD.
To register with OSD, please call (310) 825-1501, and we will make an appointment for you to meet with a disability specialist. If you are unsure if you qualify, we will explore with you what the issues are and make recommendations. All services provided by the OSD are free of charge, and information is kept strictly confidential. In order to register with the OSD, students fill out a general information form and provide current documentation of their disability/medical condition.

Administrative Offices - A255 Murphy Hall
Hours: Monday - Friday, 8am - 5pm
(310) 825-1501
(310) 825-9656 (FAX)
(310) 825-2263 (Van Service)
(310) 206-6083 (Telephone Device for the Deaf)

OSD Proctoring Center - A242 Murphy Hall
Hours: Monday - Friday, 7am - 4pm
(310) 825-2651
(310) 267-2008 (FAX)

Mailing Address
UCLA Office for Students with Disabilities
Box 951426
Los Angeles, CA 90095-1426
http://www.osd.ucla.edu/

PARKING, TRANSPORTATION & SHUTTLE SERVICES

Public Transportation
Refer to the website below to obtain more information regarding the ways to get around UCLA.
https://main.transportation.ucla.edu/

Parking
To obtain quarterly deadline dates and information on how to apply for a parking permit, van pool, ride share, GoBruin bus program and other available transportation services, go to:
https://main.transportation.ucla.edu/campus-parking. Their office is located at 555 Westwood Plaza, corner of Westwood Blvd. & Strathmore Avenue (in front of Parking Structure 8, Level 2).

Campus Shuttles
The campus shuttle system incorporates the use of buses and vans that are clean, wheelchair accessible and well-equipped with air-conditioning and comfortable seating.

Campus Express
The Campus Express shuttle travels in a counter-clockwise direction providing round-trip service from: Weyburn Terrace and Lot 36 in the southwest corner of campus, through Westwood and the University to Macgowan Hall turnaround in the northeast region of campus.
Campus Express Northbound Bus Stops  Campus Express Southbound Bus Stops

Weyburn Terrace  Macgowan Hall
Lot 36  Murphy Hall
NPI  Structure 2 / Molecular Science
Structure 2  Gonda Research Facility
Murphy Hall  Medical Plaza (adjacent to Med. Plaza 100)
Macgowan Hall  Weyburn Terrace

Note: Occasional delays in shuttle bus service may occur due to construction, traffic, weather, mechanical problems, etc. This schedule is subject to change.

For the latest shuttle bus information, such as traffic conditions, Lost & Found, and service delays, please call UCLA Transit Operations at 310-206-2908.

EMPLOYMENT & FINANCIAL AID

Aid comes in many forms. Besides government and University of California financial aid, students may be eligible for funds directly from the Department. Departmental aid is more merit-based than need-based. Outright gifts such as fellowships and fee waivers are harder to get than a research and teaching assistantship, which usually pays a portion of the fees. Most good students can expect a combination of aid. The one form of aid that is extremely competitive is the allocation of non-resident tuition waivers to foreign students. Once here, students in good academic standing will get continued support.

Students who are receiving financial support from the department must carry a full load of courses, 12 or more units, each quarter. The courses must be approved by the student’s academic advisor. Students who drop course(s) or otherwise do not comply with this requirement may be at risk of losing their financial support from the department.

Employment

Practically all doctoral students are able to find employment in the form of a stipend, fellowships, or other work related to their field (e.g. Readers, TA’s, Researchers). Two positions, GSR (Graduate Student Researcher) and special reader carry fee remissions in addition to the standard pay. In some cases, GSR can also qualify for non-resident tuition remission.

If you are seeking employment as a special reader, you should apply at least six weeks in advance to ensure that you receive full consideration for the following quarter. The applications are on the department web site at http://www.biostat.ucla.edu/student-employment Applications must be updated every quarter. They will be destroyed after 90 days. Submit your application(s) to Roxy Naranjo via email at rlnaranjo@ph.ucla.

Special Opportunities

We have an AIDS training grant in the area of AIDS research. Students supported by this grant (US citizens and permanent residents) receive a stipend plus tuition and fees. UCLA is a major center for AIDS research, and the department is one of the few with such training opportunities. Other support for outstanding students includes nonresident tuition waivers and campus fellowship funds. Some federal public health traineeships are available to support U.S. citizens and permanent residents. Through the Health Career
Opportunity Program, the University has special scholarship funds to support minority students who have high potential for graduate study.

**Work study and other need based support**

Apply directly to the Financial Aid Office (http://www.financialaid.ucla.edu/) for financial aid, and the Career Center (http://www.career.ucla.edu/) for work study opportunities.

**LOCKERS**

Lockers within the Fielding School of Public Health (on the A-level, and from 2nd through 7th floors) are available to all Public Health Students. Locker assignments are handled by the Fielding School of Public Health Dean’s Office in 16-035 CHS. Lockers are assigned on a first come basis. Please refer to the locker assignment handout in your orientation folder for the policy and procedure.
# BIOSTATISTICS DEPARTMENT COMPETENCIES

**MS Competencies – Biostatistics**

Upon graduation, a student with an MS degree in Biostatistics should be able to do the following:

<table>
<thead>
<tr>
<th>COMPETENCIES</th>
<th>a. Collaborate with researchers to formulate the aims of a public health research project.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b. Formulate a public health question in statistical terms.</td>
</tr>
<tr>
<td></td>
<td>c. Identify the strengths and weaknesses of different study designs to address public</td>
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<tr>
<td></td>
<td>health and scientific questions; communicate these issues to public health researchers</td>
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<tr>
<td></td>
<td>d. Assist in the development of data collection tools; evaluate these tools from a statistical</td>
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<tr>
<td></td>
<td>vantage point.</td>
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<tr>
<td></td>
<td>e. Identify and implement steps necessary to insure the quality of data collected in a</td>
</tr>
<tr>
<td></td>
<td>study.</td>
</tr>
<tr>
<td></td>
<td>f. Conduct appropriate statistical analyses of study data and interpret the results.</td>
</tr>
<tr>
<td></td>
<td>g. Effectively communicate the assumptions and results of analyses through oral and written</td>
</tr>
<tr>
<td></td>
<td>communications to the collaborative team.</td>
</tr>
<tr>
<td></td>
<td>h. Use statistical software to answer research questions and communicate the results to</td>
</tr>
<tr>
<td></td>
<td>other research professionals.</td>
</tr>
<tr>
<td></td>
<td>a. Gauge the statistical skill set of an audience to appropriately customize the level of</td>
</tr>
<tr>
<td></td>
<td>biostatistical presentations.</td>
</tr>
<tr>
<td></td>
<td>b. Effectively communicate statistical concepts and reasoning to public health collaborators.</td>
</tr>
<tr>
<td></td>
<td>c. Learn to write and disseminate substantive field publications and communicate the statistical portion of the methodology to a substantive field audience.</td>
</tr>
<tr>
<td></td>
<td>d. Learn digital tools useful for communication.</td>
</tr>
<tr>
<td></td>
<td>e. Be able to articulate interdisciplinary approaches to solving public health problems.</td>
</tr>
</tbody>
</table>
| Develop skills to enable life-long learning in biostatistics applied to public health. | a. Develop ability to critically read literature on contemporary public health problems and to identify the salient statistical issues.  
| | b. Develop ability to comprehend and be engaged in seminars and presentations on biostatistical research.  
| | c. Develop ability to comprehend seminars and presentations in public health sciences and to distill the critical and salient statistical issues.  
| | d. Develop ability to use new and evolving computational and digital technologies into biostatistical work. |
**PHD Competencies – Biostatistics**

**Upon graduation, a student with a PHD degree in Biostatistics should be able to do the following:**

<table>
<thead>
<tr>
<th>COMPETENCIES</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>a.</strong> Collaborate with researchers to formulate the aims of a public health research project.</td>
</tr>
<tr>
<td></td>
<td><strong>b.</strong> Formulate a public health or scientific question in statistical terms.</td>
</tr>
<tr>
<td></td>
<td><strong>c.</strong> Identify the strengths and weaknesses of different study designs to address public health and scientific questions; communicate these issues to public health researchers.</td>
</tr>
<tr>
<td></td>
<td><strong>d.</strong> Identify and implement steps necessary to insure the quality of data collected in a study.</td>
</tr>
<tr>
<td></td>
<td><strong>e.</strong> Conduct appropriate statistical analyses of study data and interpret the results.</td>
</tr>
<tr>
<td></td>
<td><strong>f.</strong> Effectively communicate the assumptions and results of analyses through oral and written communications to the collaborative team.</td>
</tr>
<tr>
<td></td>
<td><strong>g.</strong> Develop skills necessary to promote collegiality in a collaborative team of scientists.</td>
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<td></td>
<td><strong>h.</strong> Research biostatistical methods and computational resources for collaborative research.</td>
</tr>
<tr>
<td></td>
<td><strong>i.</strong> Adhere to and promote high ethical standards in the conduct of studies, including data collection, statistical analysis, and publication.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Develop skills to enable life-long learning in biostatistics.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>a.</strong> Develop ability to critically read statistical methodological literature.</td>
</tr>
<tr>
<td></td>
<td><strong>b.</strong> Develop ability to critically read literature on contemporary public health problems and to identify the salient statistical issues.</td>
</tr>
<tr>
<td></td>
<td><strong>c.</strong> Develop ability to comprehend and be engaged in seminars and presentations on biostatistical research.</td>
</tr>
<tr>
<td></td>
<td><strong>d.</strong> Develop ability to comprehend seminars and presentations in public health sciences and to distill the critical and salient statistical issues</td>
</tr>
<tr>
<td></td>
<td><strong>e.</strong> Develop ability to evaluate and incorporate new and evolving computational and digital technologies into biostatistical work.</td>
</tr>
</tbody>
</table>
| Perform and publish original research in the theory and methodology of biostatistics. | a. Gauge the statistical skill set of an audience to appropriately customize the level of biostatistical presentations.  
b. Effectively communicate statistical concepts and reasoning to public health collaborators.  
c. Learn to write and disseminate substantive field publications and communicate the statistical portion of the methodology to a substantive field audience.  
d. Learn digital tools useful for communication.  
e. Be able to articulate interdisciplinary approaches to solving public health problems.  
f. Develop software and digital tools to implement novel biostatistical methodologies.  
g. Organize and present effective seminars on biostatistical research.  |
|---|---|
| Effectively communicate biostatistical concepts, methods and analyses to scientists, public health professionals, students and other biostatisticians | a. Gauge the statistical skill set of an audience to appropriately customize the level of biostatistical presentations.  
b. Become an effective biostatistics teacher of students who are not biostatistics majors but wish to apply biostatistics to their substantive fields.  
c. Become an effective biostatistics teacher of students whose goals are to become professional biostatisticians.  
d. Effectively communicate statistical concepts and reasoning to public health collaborators.  
e. Learn to write and publish biostatistical methodology in biostatistical journal articles and books.  
f. Learn to write and publish substantive field publications and communicate the statistical portion of the methodology to a substantive field audience.  
g. Learn current and future digital tools useful for communication.  
h. Become an effective leader in the statistical or public health communities.  |
**MPH Competencies – Discipline Specific Competencies for Biostatistics**

Upon graduation, a student with an MPH degree in Biostatistics should be able to do the following:

<table>
<thead>
<tr>
<th>COMPETENCIES</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Statistical Analysis</strong></td>
<td>Explain the fundamental concepts of statistical analysis such as scientific hypothesis testing, estimation and statistical modeling for datasets from health studies.</td>
</tr>
<tr>
<td><strong>Analytical Skills</strong></td>
<td>Develop analytical skills and obtain broad insights involving the design and analysis of experiments to understand and model the dependence between different variables (e.g. regression), handle missing or incomplete data, and carry out rigorous statistical modeling for data obtained from a variety of public health study designs.</td>
</tr>
<tr>
<td><strong>Analytical and Computational Skills</strong></td>
<td>Develop analytical and computational skills for the management, modeling and analysis of public health datasets with several variables that may be dependent on one another using statistically rigorous methods and models.</td>
</tr>
<tr>
<td><strong>Research Study</strong></td>
<td>Consult with public health professionals and researchers helping them design research studies (using statistically rigorous methods for sample size determination and power) and analyzing data obtained from such designs.</td>
</tr>
<tr>
<td><strong>Statistical Consulting</strong></td>
<td>Complete a statistical consulting project with a health professional, communicate the findings using a written report and with oral presentations.</td>
</tr>
<tr>
<td><strong>Statistical Programming and Computational Skills</strong></td>
<td>Learn statistical programming and computational skills for conducting statistical simulation experiments, designing studies and analyzing public health datasets with several variables and potentially complex relationships.</td>
</tr>
<tr>
<td><strong>Methodological Alternatives</strong></td>
<td>Describe preferred methodological alternatives to commonly used statistical methods when assumptions are not met.</td>
</tr>
<tr>
<td><strong>Written and Oral Presentations</strong></td>
<td>Develop written and oral presentations based on statistical analyses for public health professionals as well as lay audiences.</td>
</tr>
</tbody>
</table>
### Core MPH Competencies in Biostatistics

<table>
<thead>
<tr>
<th>COMPETENCIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Judge, critique and interpret reports of individual epidemiologic studies; evaluate strengths and limitations of epidemiologic reports</td>
</tr>
<tr>
<td>Use existing databases to provide background information or data to address research questions and draw appropriate inferences/estimates from epidemiologic data</td>
</tr>
<tr>
<td>Describe preferred methodological alternatives to commonly used statistical methods when assumptions are not met.</td>
</tr>
<tr>
<td>Distinguish among the different measurement scales and the implications for selection of statistical methods to be used based on these distinctions.</td>
</tr>
<tr>
<td>Apply descriptive techniques commonly used to summarize public health data.</td>
</tr>
<tr>
<td>Apply common statistical methods for inference.</td>
</tr>
<tr>
<td>Apply descriptive and inferential methodologies according to the type of study design for answering a particular research question.</td>
</tr>
<tr>
<td>Apply basic informatics techniques with vital statistics and public health records in the description of public health characteristics and in public health research and evaluation.</td>
</tr>
<tr>
<td>Interpret results of statistical analyses found in public health studies.</td>
</tr>
<tr>
<td>Develop written and oral presentations based on statistical analyses for both public health professionals and educated lay audiences.</td>
</tr>
</tbody>
</table>
**DrPH Competencies – Biostatistics**

Upon graduation, a student with a DrPH degree in Biostatistics should be able to do the following:

<table>
<thead>
<tr>
<th>COMPETENCIES</th>
<th>1. Become an effective leader in the statistical and or public health communities.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>2. Develop skills, knowledge and confidence to enable the creation of public health</td>
</tr>
<tr>
<td></td>
<td>projects including subject matter relevance, design, and public health significance.</td>
</tr>
<tr>
<td></td>
<td>3. Develop skills necessary to promote collegiality in a collaborative team of scientists.</td>
</tr>
<tr>
<td></td>
<td>4. Develop management and scientific skills to effectively lead a public health project as principal investigator or chief scientist.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPETENCIES</th>
<th>1. Collaborate with researchers to formulate the aims of a public health research project.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2. Formulate a public health question in statistical terms.</td>
</tr>
<tr>
<td></td>
<td>3. Identify the strengths and weaknesses of different study designs to address public health and scientific questions; communicate these issues to public health researchers.</td>
</tr>
<tr>
<td></td>
<td>4. Assist in the development of data collection tools; evaluate these tools from a statistical vantage point.</td>
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<td>5. Identify and implement steps necessary to insure the quality of data collected in a study.</td>
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<td>6. Conduct appropriate statistical analyses of study data and interpret the results.</td>
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<td>7. Effectively communicate the assumptions and results of analyses through oral and written communications to the collaborative team.</td>
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<td>8. Research Biostatistical methods and computational resources for collaborative research.</td>
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<td>9. Adhere to and promote high ethical standards in the conduct of studies, including data collection, statistical analysis, and publication.</td>
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| Effectively communicate biostatistical concepts, methods and analyses to scientists, public health professionals, students and other biostatisticians | 1. Gauge the statistical skill set of an audience to appropriately customize the level of Biostatistical presentations.  
2. Become an effective biostatistics teacher of students who are not biostatistics majors but wish to apply biostatistics to their substantive fields  
3. Become an effective biostatistics teacher of students whose goals are to become professional biostatisticians.  
4. Effectively communicate statistical concepts and reasoning to public health collaborators.  
5. Learn to write and disseminate substantive field publications and communicate the statistical portion of the methodology to a substantive field audience.  
7. Be able to articulate interdisciplinary approaches to solving public health problems.  
8. Become an effective spokesperson for promoting the application of good statistical practice in public health. |
| Perform and disseminate work applying Biostatistical principles to address important problems in public health and related fields. | 1. Critically review and interpret the Biostatistical literature relevant to the application.  
2. Write and present effective and clear reports or publications about the application of statistical methods to health problems.  
3. Develop software and digital tools as necessary to apply statistical methodology.  
4. Develop the skills to become sufficiently knowledgeable about the health related subject matter to be able to make significant contributions.  
5. Understand and be able to effectively communicate the public health significance of the problems being addressed. |
| **Develop skills to enable life-long learning in biostatistics applied to public health** | 1. Develop ability to critically read statistical methodological literature relevant to public health problems.  
2. Develop ability to critically read literature on contemporary public health problems and to identify the salient statistical issues.  
3. Develop ability to comprehend and be engaged in seminars and presentations on biostatistical research.  
4. Develop ability to comprehend seminars and presentations in public health sciences and to distill the critical and salient statistical issues.  
5. Develop ability to evaluate and incorporate new and evolving computational and digital technologies into biostatistical work. |
It is the individual STUDENT’S RESPONSIBILITY to meet all requirements and deadlines.

The Biostatistics faculty and staff are here to assist you.

WELCOME!