Biostatistics

College of Letters and Science (http://ls.berkeley.edu) and School of Public Health (http://sph.berkeley.edu)
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Graduate Group Website: Biostatistics (http://www.stat.berkeley.edu/biostat)

Graduate Group in Biostatistics

Many issues in the health, medical, and biological sciences are addressed by collecting and exploring relevant data. The development and application of techniques to better understand such data is the fundamental concern of the Group in Biostatistics. The program offers training in theory of statistics and biostatistics, the computer implementation of analytic methods, and opportunities to use this knowledge in areas of biological/medical research. The curriculum is taught principally by members of the Department of Statistics (College of Letters and Science) and the Division of Biostatistics (School of Public Health) and provides a wide range of ideas and approaches to the analysis of data.

Graduate Programs and Degrees

The Group in Biostatistics offers two graduate programs: MA and PhD. These programs are appropriate for students who have either a strong mathematical and statistical background with a focus in the biomedical sciences, or degrees in the biological sciences with a focus in mathematics and statistics. (The MA degree can be obtained under Plan I or Plan II. The PhD dissertation is administered according to Plan B.)

The Group in Biostatistics, in conjunction with other departments on the UC Berkeley campus, offers a PhD in biostatistics with a Designated Emphasis (DE) in Computational and Genomic Biology (DE-CGB) or a Designated Emphasis in Computer Science and Engineering (DE-CSE). For information on the DE-CGB, go to the website (http://computationalbiology.berkeley.edu) . For information on the DE-CSE, go to the website. (http://cse.berkeley.edu)

For further information, consult the Biostatistics website. (http://www.stat.berkeley.edu/biostat)

Graduate Program

For the MA, minimum entrance requirements consist of two full-year courses in calculus, a course in linear algebra, and a one-year course in statistics or biostatistics. Those applying for the PhD should possess a strong quantitative background exceeding the minimum requirements for the MA.

Research Facilities

Graduate students in the group have direct access to a variety of specialized computing resources, as well as the services of the campus computing facilities. Research activity of the faculty currently includes biostatistical computing, statistical issues in AIDS research, survival analysis, environmental health, epidemiology, and statistical methods in genetics and computational biology. Projects in research areas provide opportunities for both practical experience and individual research. Cooperation with other departments allows unusually broad and effective training in both theoretical and applied directions.

Courses of Instruction

A wide variety of appropriate courses from a number of departments is available to candidates for either the MA or the PhD degree, giving both programs considerable flexibility. Such flexibility allows students in consultation with the graduate adviser to arrange an individualized program. See Public Health (http://sis.berkeley.edu/catalog/gcc_view_req?p_dept_cd=PB+HLTH) and Statistics in this Bulletin for course listings.