Post-Baccalaureate Certificate Program In Applied Statistics
California State University, Hayward
Information for Prospective Students

1 Students for whom this program was designed.

This program is for graduate students in fields that use statistics (e.g., physical therapy, educational psychology, sociology, biology).

2 Purpose of the program.

The Certificate in Applied Statistics combines basic work in statistics, which is required for many majors and graduate degree programs, with additional coursework in applied statistics. The coursework is designed to broaden abilities of scientists and social scientists to apply statistics to research and employment in their chosen field.

3 Core coursework. Complete A and B below. (12 units)

3.1 Applied Statistical Methodology.

Choose one of the following pairs of courses. 8 units

1. (a) STAT 3010\(^1\) Statistical Methods in the Social Sciences (4) and either
   (b) STAT 4000 or STAT 6010 Statistical Analysis in the Behavioral Sciences (4) or Applied Analysis of Variance (4)

2. (a) STAT 3031\(^2\) Statistical Methods in Biology (4), and either
   (b) STAT 4000 or STAT 6010 Statistical Analysis in the Behavioral Sciences (4) or Applied Analysis of Variance (4)

3. (a) STAT 3502\(^3\) Statistical Inference, I (4) and
   (b) STAT 3503 Statistical Inference, II (4)

3.2 Data Analysis Using Statistical Packages.

Choose one of the following courses. 4 units.

1. STAT 3900 Statistical Packages for Data Analysis (4)

2. STAT 4950 Advanced Statistical Packages for Data Analysis (4)

3.3 Electives.

Choose 12 units from among the following. Other courses maybe substituted if you have the necessary prerequisites. Contact an advisor in statistics for clarification. 12 units

1. STAT 3415 Introduction to Decision Theory (4)

2. STAT 3510 Sampling Procedures for Surveys (4)

\(^1\) Requires STAT 1000.
\(^2\) Requires MATH 1130.
\(^3\) Requires MATH 1305 or MATH 1820.
3. STAT 3910 Statistical Software Design (4)
4. STAT 4515 Applied Multivariate Analysis (4)
5. STAT 4601 Regression (4)
6. STAT 4610 Nonparametric Statistical Methods for the Social Sciences (4)
7. STAT 4860-99 Undergraduate Seminar (4)
8. STAT 6020 Statistical Methods in Clinical Trials (4)
9. STAT 6031 Introduction to Statistics for Bioinformatics (4)

Total: 24 units; at least one must be at the applied graduate level.