



Statistics

Statistics Courses

STAT 5000 Capstone in Statistics (3 credits)

Students design and complete a data science project in conjunction with the course professor. The project requires the student's accumulated academic experience to solve a challenging problem. The project will focus on real data sets and students will be expected to effectively use oral & written communication, research skills, teamwork, and planning. Prerequisite(s): Senior status with an expected graduation date in the year the course is taken.

STAT 5610 Time Series Analysis (3 credits)

Linear time models, seasonal models, stationary models, moving average, autoregressive and ARIMA models, model identification, confidence intervals and testing, forecasting and error analysis.

STAT 5620 Applied Regression Analysis (3 credits)

This is a first course in regression analysis with an emphasis on applications. Topics covered include simple and multiple linear regression, hypothesis testing, analysis of residuals, polynomial regression, variable selection and model building, and general linear models. Students will use statistical software

STAT 5631 Probability and Statistics I (4 credits)

Probability of finite sample spaces, discrete and continuous probability distributions, exploratory data analysis, statistical models. Prerequisite: Consent of instructor.

STAT 5632 Probability and Statistics II (3 credits)

Multivariable distributions, sampling distribution theory, estimation, hypothesis testing, regression and correlation. Prerequisite: STAT 5631.

STAT 5660 Statistics for the Health Sciences (3 credits)

Introduction to descriptive and inferential statistics in the context of the health sciences. Covers data types, methods for summarizing and displaying data, measures of central tendency and variability, hypothesis testing including the analysis of variance and nonparametric techniques, correlation and regression. Students learn to use the statistical software package SPSS for data analysis.

All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

- 1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
- 1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
- 1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
- 1940, 2940, 3940, 4940 IN-SERVICE COURSE
- 1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
- 1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
- 1970, 2970, 3970, 4970 INTERNSHIP
- 1980, 2980, 3980, 4980 RESEARCH
- 1990, 2990, 3990, 4990 THESIS