



Statistics Courses

STAT 1000 Companion to Statistical Reasoning (1 credit)

An optional companion course designed to support students concurrently enrolled in STAT 1100, this course will provide support for Statistical Reasoning, including supplementary instruction and just-in-time review of prerequisite concepts. Topics, which will parallel those in STAT 1100, include shape, center and spread of distributions; sampling methods; representing data; and basic probability. This course is intended strictly as support for STAT 1100 and does not fulfill a college goal area requirement.

STAT 1100 Statistical Reasoning (3 credits)

A non-theoretical course designed to improve a student's statistical literacy. Topics include: describing distributions; introduction to sampling and study design; creating and interpreting data representations; introduction to probability; statistical issues in the news; interpreting statistical inferences. [Core Curriculum Goal Area 4.]

STAT 2610 Applied Statistics (4 credits)

A nontheoretical introduction to statistics with an emphasis on applications in a variety of disciplines. Topics include measures of central tendency, position and dispersion; basic probability; hypothesis testing; estimation; analysis of variance; linear correlation and regression; nonparametric statistics. Prerequisite: Three years of high school mathematics (including two years of algebra) and an appropriate score on the Mathematics Placement Test, or completion of MATH 1170 or higher, or completion of STAT 1100. [Core Curriculum Goal Area 4]

STAT 3610 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. Prerequisites: (MATH 2472 and STAT 2610) or STAT 3631. (Might not be offered every year.)

STAT 3620 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. Prerequisite(s): MATH 3310 and STAT 2610 or consent of instructor

STAT 3631 Probability and Statistics I (4 credits)

Probability of finite sample spaces, discrete and continuous probability distributions, exploratory data analysis, statistical models. Prerequisites: MATH 2472.

STAT 3632 Probability and Statistics II (3 credits)

Multivariable distributions, sampling distribution theory, estimation, hypothesis testing, regression and correlation. Prerequisites: MATH 2480 and STAT 3631. (Might not be offered every year.)

STAT 3660 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. Prerequisite: MATH 1170 or consent of instructor.

STAT 4000 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. Prerequisite(s): Senior Status

STAT 4917 DIS Tchg Assoc | (1-2 credits)

Directed Independent Study | Teaching Associate

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