

Statistics (STAT)

STAT 1342 Elementary Statistics 3 SCH (3-0)

Elementary description of tools of statistics inference, including empirical and theoretical distributions, probability, sampling, treatment of both continuous and discrete data, correlation and applications to practical problems. Prerequisites: Two years of high school algebra and appropriate scores on math placement tests.

Fee: \$5.00

STAT 2342 Statistical Analytics 3 SCH (3-0)

Foundation course in statistical analysis, with emphasis on methods and interpretation of results, review of probability and common distributions, sampling distributions of mean, proportion, and variance; Central Limit Theorem; hypothesis testing, confidence interval, power of a test, sample-size calculation, contingency tables, chi-squared test, and introduction to ANOVA. Prerequisites: STAT 1342 or equivalent.

STAT 3331 Intro to Nonparametric Stats 3 SCH (3-0)

The basic foundation for nonparametric statistical methods. Focus on methods and interpretation of the results. Measure of scales (nominal, ratio, and interval) and overview of analyzing data having these scales of measurements using nonparametric methods. Emphasis on one-and-two sample tests of locations using standard nonparametric methods. Prerequisites: STAT 1342 or equivalent.

STAT 4301 Biostatistics 3 SCH (3-0)

For students in biology, health sciences, human sciences, and wildlife science. Descriptive and inferential statistics, basic probability concepts, probability distributions, estimation, hypothesis testing, correlation, simple linear regression, principles of epidemiology, statistical vs. clinical significance, and quasi-statistical methods. Prerequisite: MATH 1314.

Fee: \$15.00

STAT 4303 Statistical Methods 3 SCH (3-0)

Calculus-based probability, discrete and continuous random variables, joint distributions, sampling distributions, the central limit theorem, descriptive statistics, interval estimates, hypothesis tests, ANOVA, correlation, and simple regression. Prerequisite: MATH 2414.

Fee: \$15.00

STAT 4350 Probability 3 SCH (3-0)

Sample spaces, combinatorics, independence, conditional probability and Bayes' rule. Discrete and continuous probability distributions, Chebychev's inequality and limit theorems. Prerequisite: MATH 3315.

STAT 4351 Math Theory of Statistics 3 SCH (3-0)

Sampling distributions, estimation properties and methods, testing hypothesis, power of tests and likelihood ratios. Prerequisites: STAT 4350 or the equivalent and 3 semester hours of advanced mathematics.

STAT 4390 Selected Topics in Statistics 3 SCH (3-0)

Topics in statistics not adequately covered in regular courses. This course may be repeated for credit as topic changes. Prerequisite: 3 semester hours of advanced mathematics or statistics.