

# STAT - STATISTICS (STAT)

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**STAT U301 Statistical Computing 3 Credit Hours**

Data entry, sorting and merging, data summarization, graphical display, reports, and statistical inferences using statistical software.

Prerequisite(s): Any college-level statistics or consent of instructor.

**STAT U410 Introduction to Probability Theory 3 Credit Hours**

Laws of probability and sample space; discrete and continuous distributions; joint, marginal and conditional densities; moment generating functions; univariate and bivariate normal distribution.

Prerequisite(s): Grade of C or better in MATH U142; or consent of instructor.

**STAT U413 Introduction to Stochastic Processes 3 Credit Hours**

Markov chains; Poisson processes; introductory renewal theory, Brownian motion and stationary processes used in mathematical modelling.

Prerequisite(s): Grade of C or better in STAT U410; or consent of instructor.

**STAT U512 Mathematical Statistics 3 Credit Hours**

A comprehensive development of statistical analysis that builds upon a knowledge of probability and basic statistics. Topics include sampling distributions, interval and point estimation, the law of large numbers, limiting distributions, testing hypotheses and order statistics.

Prerequisite(s): STAT U410 or consent of instructor.

**STAT U516 Statistical Methods II 3 Credit Hours**

More advanced development of solutions to problems involving statistics. Topics include experimental design, analysis of variance, analysis of covariance, multiple linear regression, curvilinear regression, and logistic regression.

Prerequisite(s): MATH U315; or both ECON U291 and ECON U292; or consent of instructor.

**STAT U598 Topics in Statistics 3 Credit Hours**

Intensive study in a specialized area of statistics. Selected topic is based on student interest and faculty expertise.

Prerequisite(s): MATH U315 or consent of instructor.

**STAT U599 Seminar in Statistics 3 Credit Hours**

Integration of knowledge at an advanced level, a review of recent developments and models in theoretical and applied statistics, along with research and oral presentation.

Prerequisite(s): STAT U301 and MATH U315; or consent of instructor.