

# STATISTICS (STAT)

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**STAT 2030 Data Visualization and Analysis 3 Credits**

Introductory course in finding, describing, managing and using datasets with statistical software in order to create useful statistical results in a variety of fields.

**Components:** Class

**Prereqs/Coreqs:** P. Either MATH 1530 with a grade of C- or better or a math placement level of 20 or higher and either MATH 1830 with a grade of C- or better or MATH 4030 with a grade of C- or better

**STAT 3130 Introduction to Applied Regression Analysis 3 Credits**

A thorough investigation of regression methods used in statistics including linear regression models, multiple regression models, model building, residual analysis, and time series. Students may not receive credit for both STAT 3130 and MATH 4050.

**Components:** Class

**Prereqs/Coreqs:** P. Either MATH 1530 with a grade of C- or higher or a math placement of 20 or higher and MATH 1830 with a grade of C- or better

**STAT 3230 Experimental Design and Analysis 3 Credits**

Fundamentals of Experimental Design, Completely Randomized designs, ANOVA, Factorial and 2k designs, Block designs, Latin Square and Repeated Measures.

**Components:** Class

**Prereqs/Coreqs:** P. MATH 1830 or MATH 4030 with a grade of 'C-' or higher

**STAT 4130 Applied Categorical Data Analysis 3 Credits**

Introduction to categorical data analysis, including probability distribution, contingency tables, generalized linear models, logistic regression and logit models.

**Components:** Class

**Prereqs/Coreqs:** P. Either MATH 1530 with a grade of C- or better or a math placement level of 20 or higher and either MATH 1830 or MATH 4030 with a grade of C- or better

**STAT 4230 Applied Nonparametric Statistics 3 Credits**

Introduction to distribution-free tests, confidence intervals, estimation; topics include one- and two-sample problems, one- and two-way analysis of variance, multiple comparisons, and correlation.

**Components:** Class

**Prereqs/Coreqs:** P. Either MATH 1530 with a grade of C- or better or a math placement level of 20 or higher and either MATH 1830 or MATH 4030 with a grade of C- or better