

DATA SCIENCE (DAT)

DAT 1001 | Introduction to Data Science

Lecture Credit: 3

Provides a foundational overview of data science and develops the knowledge required to make data-driven decisions to address real-world problems. The course introduces how to collect data from different sources, use of statistics to draw conclusions about a given data set, use of technology to visualize data and some of the challenges associated with storing, manipulating, analyzing and securing data. Computational tools are used as a component of the course.

DAT 2001 | Calculus Based Statistics and Modeling

Lecture Credit: 3

Introduces probability and statistics with an emphasis on computation, large data sets, and applications for engineering and data science careers. This course covers descriptive statistics, inferential methods, basic probability, predictive modeling, risk assessment, and methods of regression.

Prerequisite: MAT 2410 with a grade of C or better

DAT 2002 | Visualizing Data

Lecture Credit: 3

Focuses on the analysis and design of visual representations of statistical information. The analysis and evaluation of existing graphics are combined with principles from disciplines such as statistics, computer science, and graphic design to define the criteria for a quality visualization. Various software tools are used to develop static and interactive visualizations to identify patterns, convey messages, make decisions, and tell stories with data.