

BUSINESS ANALYTICS (BAN)

BAN 220. Data Mining for Business Insights. 3 Credits.

This course focuses on analyzing data sets to find patterns and anomalies, with the goal of extracting valuable information. The course covers basic concepts, methods, and techniques used in data mining, including data exploration, dimension reduction and data preparation.

Prerequisites: None

Offered: Every year, Fall

BAN 300. Statistical Programming With R. 3 Credits.

This course introduces students to R, a widely used statistical programming language. Students learn to read data, write functions, analyze data and create visualizations in R.

Prerequisites: Take EC 271 or EC 272 or MA 170 or MA 176 or MA 206 or MA 275 or MA 275H or MA 285.

Offered: Every year, Fall

BAN 310. Web Analytics. 3 Credits.

This course introduces students to the concept and use of web analytics. Topics covered include measurement planning, data collection, audience characteristics, traffic acquisition and user behavior. Students use Google Analytics to apply their learning and take the Google Analytics Individual Qualification exam to demonstrate their proficiency at the completion of this course.

Prerequisites: None

Offered: Every year, Spring

BAN 320. Big Data. 3 Credits.

The course focuses on the concept and techniques used for managing big data. The course explores how big data is used within organizations to support analytics. Emphasis is on the Hadoop platform and supplemental tools that are used within a Hadoop environment to design and maintain a big data infrastructure.

Prerequisites: Take CIS 351.

Offered: As needed

BAN 410. Social Media Analytics. 3 Credits.

In this course, students will learn how to use various tools and software to process and analyze social media data. The course covers the concepts and methods of social network analysis, including centrality measures, community detection, and visualization techniques.

Additionally, the course covers the implications for business and ethical issues surrounding the collection and analysis of social media data.

Prerequisites: Take BAN 300 or CIS 245.

Offered: Every year, Spring

BAN 420. Machine Learning and Artificial Intelligence for Business. 3 Credits.

The course introduces machine learning techniques for predictive modeling of business problems and opportunities. It covers the process of formulating a business analytics research hypothesis, developing business objectives, data selection, preparation and partitioning to successfully design, build and evaluate predictive models. Predictive modeling techniques such as classification and decision trees, neural networks, regression, random forests and other techniques are covered.

Prerequisites: Take BAN 220.

Offered: Every year, Spring

BAN 484. Business Analytics Internship. 3 Credits.

Students gain experience by employing their skills in a professional setting under practicing professionals. This internship involves in-depth work related to analytics and is usually completed in the summer between the student's junior and senior years or during their senior year. Students must obtain approval to register for this course prior to starting the work experience. Permission of the department chair or internship coordinator is required.

Prerequisites: Take BAN 220.

Offered: As needed