

Business Analytics

Courses

BANA 5085. Business Analytics Seminar. 1-6 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

This course addresses selected topics of current importance in business analytics. May be repeated for credit when topics vary.

BANA 5086. Problems. 1-6 Credit Hours (Lecture: 1-6 Hours, Lab: 0 Hours).

This course offers students the opportunity to study analytics topics and perform research within the student's area of interest as directed by the responsible professor. Prerequisite: Approval of the department head.

BANA 5090. Special Topics in Business Analytics. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 1-3 Hours).

An examination of current topics in business analytics. Readings required from current analytics publications and other related periodicals. May be repeated for credit when topics vary.

BANA 5301. Business Analytical Statistics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

This course emphasizes statistical data analysis using statistical programming languages, and the reporting of results in a manner consistent with contemporary business practice. This course starts with a review of descriptive statistics, probability theory, and a review of probability under various distribution conditions. It then advances into univariate hypothesis testing and introduces non-parametric data analysis. Statistical programming is introduced and applied across the course. Prerequisite: undergraduate statistics (a minimum of 3 semester credit hours).

BANA 5310. Business Applied Data Mining. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

This course focuses on using statistical techniques to solve business problems across the enterprise and create competitive advantage from information held in data warehouses. The techniques covered include decision trees, cluster analysis, pattern matching, vector auto-regression, co-integration, and event study methodology. Prerequisite: BANA 5301 or Department Head approval.

BANA 5320. Prescriptive Analytics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

Business prescriptive analytics seek the best course of action among many choices. This course focuses on using techniques to solve complex business problems that involve trade-offs between goals and constraints. The course addresses resource allocation problems under uncertainty. Topics covered include optimization, sensitivity analysis, linear integer and nonlinear programming, network models, decision making under uncertainty, inventory and supply chain models, and an introduction to simulation and queuing models. Prerequisite: BANA 5301 or Department Head approval.

BANA 5391. Business Analytics Research. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

The goal of the business data analyst is to give the business enterprise a competitive advantage. This capstone course combines database management, data visualization, statistical data exploration, data mining, and predictive modeling to address business problems. The student is required to interpret and understand the business problem and develop an analytical approach to solving the problem. The course introduces the student to Python programming and requires the student to communicate the solution to the problem following contemporary business communication. Prerequisites: ECON 5311, BANA 5310, and BANA 5320.