Given society’s ever-expanding ability to collect and store vast amounts of transactional, performance, and financial data, business analysts and leaders need the capability to recognize patterns in and transform raw data into actionable business intelligence. Designed for recent graduates with little to no professional experience, BAN 831 expands upon the data visualization concepts covered in BAN 830 by exploring a variety of advanced data visualization techniques focused on "big data" sets derived from marketing, finance, accounting, supply chain management, and other business-related scenarios. Using the latest data visualization software applications, business students will focus on the development of dashboards and scorecards useful for translating structured and unstructured business performance data into decision-ready knowledge.

Recommended Preparations: BAN 830
BAN 841: Data Mining for Business

3 Credits

Intended for recent graduates with little to no professional experience, BAN 841 develops business students’ understanding of and ability to apply a variety of data mining tools and techniques for use in detecting and exploiting patterns and relationships in large structured and unstructured data sets derived from a variety of business scenarios. Students will explore the use of cluster analysis, classification, association, and cause-and-effect modeling techniques to explore and reduce data, classify new data elements, identify natural associations among variables, create rules for target marketing or buying recommendations, and describe relationships among data that motivate business performance. Specific techniques may include k-nearest neighbor, discriminant analysis, and association rule mining. Students will learn how to bridge descriptive and predictive analytics across a variety of business scenarios. Coursework includes individual assignments intended to develop confidence with basic data mining techniques, followed by case-based problems that challenge students’ creativity and data mining mastery in search of patterns and data relationships leading to useful business insights. While underlying theory will be discussed, the course will prepare business analysts by focusing specifically on data mining applications in marketing, finance, supply chain management, and other business areas, with an emphasis on the unique aspects of decision making in a business environment. Software packages, concepts, and business applications will vary and evolve to keep pace with technology, theory, and instructor interest.

BAN 888: Implementing Analytics for Business

3 Credits

Sets business analytics in real-world context. Explores project life cycle from business problem framing to model lifecycle management. BAN 888 Implementing Analytics for Business (3) The capstone course for the Business Analytics option in the Data Analytics MPS degree program, this course sets analytics problem solving in a real-world context, including communication to non-statistically trained executives. Key topical areas are derived from the common activities of the business analyst and include business problem framing, analytics problem framing, data sourcing, cleaning and integration, analysis methodology selection, model building, model deployment and model lifecycle management including benefit assessment. Topics align with the body of knowledge in the Institute for Operations Research and the Management Sciences (INFORMS) Certified Analytics Professional Study Guide. Students explore each topic in a real world context, by developing solutions to cases in a team setting. Each team selects a case and works through all elements of the analytics body of knowledge, with group presentations on problem framing, analytics model selection and development, and model lifecycle management in a business setting.

Prerequisite: BAN 530 and BAN 550