Master of Science in Business Analytics

36 semester credit hours minimum

Degree Requirements

The Master of Science in Business Analytics (MS BSAN) degree requires a minimum of 36 semester credit hours, consisting of a set of core courses, and a set of analytics electives organized into different tracks. The core courses provide a broad and strong foundation in the business analytics area. The core covers statistics and econometrics, predictive modeling, decision and optimization (prescriptive) modeling, and data management. The analytics electives provide students with an opportunity to obtain in-depth analytics knowledge in a specific domain/industry. The specialization tracks that a student can choose from include Marketing Analytics, Decision and Operations Analytics, Financial Analytics, Healthcare Analytics, and IT for Analytics. Students can contact the advising office for the recommended courses for these tracks.

Students must maintain a 3.0 grade point average in both core courses and in aggregate courses to qualify for the MS degree.

Course Requirements

Core Courses: 24 semester credit hours from the following

- MECO 6312 Applied Econometrics and Time Series Analysis
- or ECON 6306 Applied Econometrics
- OPRE 6301 Quantitative Introduction to Risk and Uncertainty in Business
- OPRE 6398 Prescriptive Analytics
- MIS 6320 Database Foundations
- MIS 6324 Business Intelligence Software and Techniques
- MIS 6390 Analytics Practicum
- MKT 6337 Marketing Analytics Using SAS

and

- One of the following Track-Specific courses
  - FIN 6301 Financial Management
  - HMGT 6320 The American Healthcare System
MIS 6308 Systems Analysis and Project Management  
MKT 6301 Marketing Management  
OPRE 6302 Operations Management

Analytics Electives: 12 semester credit hours

**Healthcare Analytics Track**

- HMGT 6323 Healthcare Informatics  
- HMGT 6334 Healthcare Analytics  
- HMGT 6327 Information and Knowledge Management in Healthcare  
- HMGT 6325 Healthcare Operations Management

**Financial Analytics Track**

- FIN 6381 Introductory Mathematical Finance  
- FIN 6306 Quantitative Methods in Finance  
- FIN 6352 Financial Modeling  
- FIN 6382 Numerical Methods in Finance

**IT For Analytics Track**

- MIS 6309 Business Data Warehousing  
- MIS 6334 Advanced Business Intelligence (with SAS)  
- MIS 6344 Web Analytics  
- MIS 6373 Social Media and Business

**Marketing Analytics Track**

- MKT 6338 Enterprise Systems and CRM  
- MKT 6323 Database Marketing  
- MKT 6309 Marketing Research  
- MKT 6365 Marketing Digital Applications

**Decisions and Operations Analytics Track**

- OPRE 6332 Spreadsheet Modeling and Analytics  
- OPRE 6335 Risk and Decision Analysis  
- OPRE 6377 Demand and Revenue Management  
- OPRE 6378 Supply Chain Strategy
Other Analytics-related courses can be approved on a case-by-case basis.