MS

FT FULL TIME PT PART TIME NIGHT ✓ STEM

Master of Science in

Business Analytics

The Master of Science in Business Analytics (MSBA) program provides an in-depth understanding of the latest data analytics practices. You'll look at commonly used statistical modeling methodologies, as well as leading state-of-the-art data mining techniques, challenging yourself to not just master data analysis, but to refine and develop strategies for communication of their findings. Bentley has been a leader in the advanced study of business analytics for more than 20 years, and this expanded program takes this commitment to a new level.

Program Features

- Continues Bentley's long tradition of training analytics professionals at the graduate level, providing the valuable tools you need to succeed in this emerging field.
- Built around seven-course core component coupled with three focused electives in one of six clusters: data science, economics, finance, information management, management or marketing.
- Designed to match the needs of a wide variety of employers in the analytics space, providing you very strong career opportunities upon graduation.
- STEM designation, increasing employability of international students due to three years of OPT (optional practical training).
- Combine data analysis with computer science, applied to various business fields. Acquire skills in statistical programming languages R and Python, database language (SQL) and visualization and data storytelling. Gain an understanding of statistical modeling, data mining and machine-learning techniques through hands-on projects.

Experiential Learning

Success in today's business world requires a practical, hands-on approach to information, whether you are analyzing it, integrating it or sharing it. Our seven high-tech learning labs ensure that you'll have access to the leading edge of technology, giving you every opportunity to cut your teeth on the equipment and software being used in the business world today. MSBA candidates can take advantage of our User Experience Center and Computer Information Systems Learning and Technology Sandbox, and learn how to manipulate working solutions from real data trends they uncovered.

Career Outcomes

The MSBA prepares you for such careers as:

- Senior business analyst
- Data scientist
- Consultant
- IT systems administrator
- Senior analyst
- Business intelligence analyst
- Product specialist

“Studying at a business school versus a computer science school makes a difference.”

Amanda Dery
Senior Data Scientist
Virgin Pulse

Curriculum

Candidates for the MSBA degree should demonstrate strong interest in business analytics. Admission requires a background in business statistics or the willingness to take an additional business statistics foundation course. The ideal candidate has a degree in science, business or engineering, but highly motivated students from all disciplines are welcome.

Foundation (1 course)

All applicants will be evaluated for foundation waivers.

GR 521 Managerial Statistics

Core (7 courses)

Analytics Core

CS 605 Data Management and SQL for Analytics
IPM 652 Managing with Analytics
ST 625 Quantitative Analysis for Business

Business Analytics Core

MA 610 Optimization and Simulation for Business Decisions
MA 611 Time Series Analysis
MA 710 Data Mining
ST 635 Intermediate Statistical Modeling for Business

Electives (3 courses)

Choose from one of six elective clusters to further refine your expertise. Students may choose from the suggested electives or from courses outside of these clusters.

Data Science Cluster
CS 612 Web-Based Application Development
CS 650 Data Management Architectures
CS 753 Business Intelligence Methods
MA 705 Data Science
MA 706 Design of Experiments for Business
MA 707 Introduction to Machine Learning

Economics Cluster
EC 611 The Macroeconomics of Financial Markets
EC 631 Market Structure and Firm Strategy

Finance Cluster
FI 623 Investments
FI 635 Fixed Income Valuation and Strategies
FI 640 Equity Valuation
FI 645 Derivatives

Information Management Cluster
GR 602 Business Process Management
HF 730 Visualizing Information
IPM 723 Information Security, Controls and Ethics
IPM 755 Special Topics in Information and Process Management

Management Cluster
GR 603 Leading Responsibly
MG 632 Managing Effective Work Teams
MG 635 Negotiating
MG 645 Leading Change

Marketing Cluster
MK 711 Marketing Research and Analysis
MK 725 E-Marketing
MK 726 Customer Data Analysis and Relationship Marketing
MK 758 Enhancing Creativity

For complete degree requirements and most up-to-date course options, visit **bentley.edu/graduate**.

bentley.edu/graduate/business-analytics

Office of Graduate Admission | applygrad@bentley.edu | 781-891-2108

.5M9/19QG.GR.346.19