

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. Students learn commonly used statistical modeling methodologies and software tools, state-of-the-art data mining techniques, and strategies for communicating their findings in order to deliver value. Bentley has been a leader in the advanced study of business analytics for more than 20 years, and this expanded program takes that commitment to a new level.

Curriculum

Course	Title	Credits
Pre-Program Foundation Courses		
Students with the appropriate background may be waived from the following course:		
GR 521	Managerial Statistics	3
Required Analytics Courses		
CS 605	Data Management and SQL for Analytics	3
CS 655	Managing with Analytics	3
MA 610	Optimization and Simulation for Business Decisions	3
MA 611	Time Series Analysis	3
MA 710	Data Mining	3
ST 625	Quantitative Analysis for Business	3
ST 635	Intermediate Statistical Modeling for Business	3
Electives		
Select any three courses from the following electives. Other 600-level or higher electives require permission of the MSBA program director.		9
ST 701	Internship in Business Data Analysis	
MA 705	Data Science	
MA 706	Design of Experiments for Business	
MA 707	Introduction to Machine Learning	
MA 795	Business Analytics Project Course	
MA 799	Experimental Course in MA	
CS 602	Data-Driven Development with Python	
CS 603	Algorithmic Thinking with Java	
CS 612	Cloud-Based Enterprise Applications	
CS 650	Data Analytics Architectures with Big Data	
CS 725	Information Security, Controls and Ethics	
CS 733	Artificial Intelligence Techniques and Applications	
CS 753	Business Intelligence Methods and Technologies	
EC 611	The Macroeconomics of Financial Markets	
FI 623	Investments	
FI 635	Fixed Income Valuation and Strategies	
FI 640	Equity Valuation	
FI 645	Derivatives	
GR 602	Business Process Management	
HF 730	Visualizing Information	

MG 632	Leading Effective Work Teams	
MG 635	Negotiating	
MG 645	Leading Change	
MK 711	Marketing Research and Analysis	
MK 725	E-Marketing	
MK 726	Customer Data Analysis and Relationship Marketing	
MK 758	Enhancing Creativity	
Total Credits		30

Please Note: All coursework must be completed within five years.