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.

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		**21**
CS 605	Data Management and SQL for Analytics	3
IPM 652	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		**9**
Select any three courses from the following electives or, with permission from the MSBA program director, any 600-level or higher elective.		
CS 602	Data-Driven Development With Python	
CS 603	Algorithmic Thinking with Java	
CS 612	Web-Based Application Development	
CS 650	Data Management Architectures	
CS 733	Artificial Intelligence Techniques and Applications	

MG 630	Emotionally Intelligent Leadership
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
GR 603	Leading Responsibly (with Program Director Permission)
HF 730	Visualizing Information
IPM 723	Information Security, Controls and Ethics
IPM 755	Special Topics in Information and Process Management
MA 705	Data Science
MA 706	Design of Experiments for Business
MA 707	Introduction to Machine Learning
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
ST 701	Internship in Business Data Analysis
MA 799	Experimental Course in MA
CS 753	Business Intelligence Methods and Technologies

Program Requirements   **30**