BUSINESS ANALYTICS MS

Contact

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Program Description

The MS in Business Analytics challenges students to develop an interdisciplinary understanding of the applications of analytics to the fields of accounting, finance, marketing, and supply chain management through techniques in data collection, data visualization, statistical and pattern analysis, and data mining. The curriculum leverages an understanding of business applications from the Whitman School of Management combined with in depth technical offerings of the School of Engineering and Computer Science and the School of Information Studies.

Student Learning Outcomes

1. Students will be able to collect and organize data.
2. Students will identify patterns in data via visualization, statistical analysis, and data mining.
3. Students will develop alternative strategies based on the data.
4. Students will develop a plan of action to implement the business decisions derived from the analyses.

Degree Requirements & Learning Objectives

This is a 36 credit program that leads to a Master of Science in Business Analytics degree.

The MS Business Analytics curriculum is designed as a 36-credit program and normally requires two years or four academic semesters to complete on a full-time basis. It consists of four elements: 6 credits of required core courses; 6 credits of Analytics Applications courses; 6 credits of Analytics Depth or additional Analytics Applications courses; and 18 credits of Analytics electives. Students may select electives from other graduate programs in the University.

Code	Title	Credits
Required Core Courses and Credits		
MBC 638	Data Analysis and Decision Making (required)	3
SCM 651	Business Analytics	3
Analytics Applications Core		
Select two of the following:		6
ACC 652	Accounting Analytics	
MAR 653	Marketing Analytics	
FIN 654	Financial Analytics	
SCM 703	Principles of Management Science	
Analytics Depth Core		
Select two of the following:		6
Any courses not already selected from Analytics Applications core list		
BUA 751	Machine Learning for Business	
MAS 766	Linear Statistical Models I: Regression Models	
MAS 777	Time Series Modeling and Analysis	
MAR 655	Customer Relationship Management with Systems Applications and Products	
SCM 755	Lean Six Sigma	
IST 652	Scripting for Data Analysis	
IST 659	Data Administration Concepts and Database Management	
IST 664	Natural Language Processing	
IST 687	Introduction to Data Science	
IST 707	Applied Machine Learning	
IST 718	Big Data Analytics	
IST 719	Information Visualization	
IST 722	Data Warehouse	
IST 736	Text Mining	
IST 769	Advanced Big Data Management	
IST 686	Quantitative Reasoning for Data Science	
IST 776	Research Methods in Information Science and Technology	
IST 777	Statistical Methods in Information Science and Technology	
ECS 630	Simulation and Data Analytics	
CSE 581	Introduction to Database Management Systems	
CSE 787	Analytical Data Mining	
CIS 563	Introduction to Data Science	
Analytics Electives		
Select six courses of the following:		18
Any courses not selected from above		
All Whitman School of Management business courses count as electives.		
CIS 554	Object Oriented Programming in C++	
CIS 667	Introduction to Artificial Intelligence	
CIS 731	Artificial Neural Networks	
CSE 687	Object Oriented Design	
CPS 681	Explorations in Computing and Programming	
MMI 606	Strategic Content Management	
MAT 521	Introduction to Probability	
MAT 523	Statistical Methods for Data Science	
MAT 525	Mathematical Statistics	
MAT 695	Fundamentals of Data Science	
PAI 721	Introduction to Statistics	
PAI 722	Quantitative Analysis	
PAI 793	Predictive Analytics	
Other approved graduate business or analytics courses from Syracuse University		
Total Credits		**36**

Transfer Credit

Students can transfer a maximum of 6 credits of coursework. The credits must be graduate level taken from an AACSB accredited business school. A grade of “B” or higher is needed to transfer in the credits. The grade itself does not transfer.

Satisfactory Progress

Students are required to maintain a GPA of 3.0 or higher to meet degree requirements.

Students must pass a comprehensive exam at the end of the last semester of the program.