

### SCHOOL OF BUSINESS AND MANAGEMENT

# MASTER OF SCIENCE IN BUSINESS ANALYTICS

## Apply Science to Big Data for Effective Decision Making

Big data is the result of mass amounts of transactions made available to the business world for scientific research. Effectively managing and mining big data requires unique skills that are currently in high demand. The Master of Science in Business Analytics program teaches you to apply scientific knowledge to big data in ways that reveal practical patterns that can be used to improve business decisions. This information is invaluable in measuring the success of operations, forecasts, and strategic planning.

In the program you'll learn to analyze data in an analytics environment and evaluate methods and technologies to organize and normalize data for use in statistical analysis. You'll discover how to construct data files and statistical models to help guide a company in reducing costs, increasing efficiency, and reducing risk.

Online and On-campus Programs Monthly Starts and Accelerated Classes WSCUC Accredited

#### Program highlights:

- Entire program can be completed online
- Design analytical models to forecast prices based on data patterns
- Improve due diligence by applying security, privacy, and ethical measures using data and analytical models
- Predict future effects by evaluating existing financial data
- Apply data models to analyze and improve supply chain performance
- Construct analytical models to achieve targeted results

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#### MASTER OF SCIENCE IN BUSINESS ANALYTICS

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The Master of Science in Business Analytics is designed to prepare students to apply scientific knowledge to Big Data to find practical patterns for decision making. Organizations measure their operations, forecasting, and future strategic plans scientifically through analyzing data in marketing, sales, finances, and supply chain areas.

#### **Program Learning Outcomes**

Upon successful completion of this program, students will be able to:

- Analyze components of data and analytics environment.
- Evaluate methods and technologies to organize and normalize data for use in statistical analysis.
- Construct data files and statistical models to find patterns for competitive decision making.
- Design an analytical model to forecast prices based on the previous data patterns.
- Apply security, privacy, and ethical measures using data and analytical models to improve organizations' due diligence.
- Utilize previous financial data to predict future effects.
- Apply the appropriate data model to analyze the performance of supply chain processes.
- Construct analytical models to business data to achieve targeted results.

#### **Degree Requirements**

To receive a Master of Science in Business Analytics, students must complete 54 quarter units of graduate coursework. A total of 13.5 quarter units of graduate work completed at another regionally accredited institution may be transferred to meet stated requirements in the program provided those units were not used in earning another advanced degree. Please refer to the General Catalog section on graduate admission requirements for specific information regarding application and evaluation.

#### **Core Requirements**

(12 courses; 54 quarter units)

BAN 600	Fundamentals of Analytics
ANA 605	Analytic Models & Data Systems
	Prerequisite: BAN 600
ANA 610	Data Management for Analytics
ANA 615	Data Mining Techniques
ANA 620	Continuous Data Methods, Appl.
	Prerequisite: ANA 615
ANA 625	Categorical Data Methods, Appl.
	Prerequisite: ANA 620
ANA 630	Advanced Analytic Applications
	Prerequisite: ANA 625
BAN 640	Performance MGT & SCM Process
	Prerequisite: ANA 625 and BAN 600
BAN 645	Prediction in Marketing
	Prerequisite: BAN 640
BAN 650	Probabilistic Finance Models
	Prerequisite: BAN 645
BAN 655	Analytical Security & Ethics
	Prerequisite: BAN 650
BAN 660	Business Analytics Capstone
	Prerequisite: BAN 655