# B.B.A. IN SUPPLY CHAIN ANALYTICS

## Overview

Major Area of Specialization in Supply Chain Analytics (STEM)

The Department of Management offers a major area of specialization in Supply Chain Analytics for students pursuing the Bachelor of Business Administration degree.

The undergraduate major in Supply Chain Analytics is designed to give students an understanding of the modern supply chains and the decision tradeoffs, skills necessary to model supply chain problems as well as source and analyze supply chain data to create efficiency in the firms. Students who pursue the major in Supply Chain Analytics will be exposed to an understanding of predictive and prescriptive analytics to become a problem-solver in the complex supply chain systems; coursework that helps to broaden their understanding of how to help organizations to identify value-enhancing efficiencies; and hands-on experiences that explore actually analyzing modern real-world supply chains.

## Curriculum Requirements

In addition to satisfying the University General Education Requirements and Electives, students pursuing the BBA in Supply Chain Analytics must complete the BBA Business Core and the specific coursework for the Supply Chain Analytics major area of specialization as follows:

| Code | Title | Credit Hours |
|---|---|---|
| **General Education Requirements** [1, 2] | | |
| Written Communication Skills: | | |
| WRS 105 | First-Year Writing I | 3 |
| WRS 106 | First-Year Writing II [3] | 3 |
| or WRS 107 | First-Year Writing II: STEM | |
| or ENG 106 | Writing About Literature and Culture | |
| Quantitative Skills: | | |
| MTH 161 | Calculus I (fulfilled through the BBA Core Requirements) | |
| Areas of Knowledge: | | |
| Arts and Humanities Cognate | | 9 |
| People and Society Cognate | | 9 |
| STEM Cognate (9 credits) (fulfilled through the major) | | |
| **Other Degree Requirements** | | |
| UMX 100 | The University of Miami Experience | 0 |
| Electives | | 19 |
| **BBA Business Core Requirements** [1] | | |
| ACC 211 | Principles of Financial Accounting | 3 |
| ACC 212 | Managerial Accounting | 3 |
| BSL 212 | Introduction to Business Law and Ethics | 3 |
| BTE 210 | Fundamentals of Business Technology and Innovation | 3 |
| BUS 150 | Business Analytics | 3 |
| BUS 300 | Critical Thinking and Persuasion for Business [3] | 3 |
| ECO 211 | Principles of Microeconomics (Microeconomics) | 3 |
| ECO 212 | Principles of Macroeconomics (Macroeconomics) | 3 |
| FIN 302 | Fundamentals of Finance | 3 |
| MAS 201 | Introduction to Business Statistics [4] | 3 |
| MAS 202 | Intermediate Business Statistics [4] | 3 |
| MGT 100 | Managing for Success in the Global Environment | 3 |
| MGT 199 | Professional Development and Success in the Workplace (or other approved University of Miami Business School career course) | 1 |
| or BUS 211 | Professional Development for Finance and Accounting | |
| MGT 303 | Operations Management | 3 |
| MGT 304 | Organizational Behavior | 3 |
| MGT 401 | Strategic Management (taken in the final semester) | 3 |
| MKT 201 | Foundations of Marketing | 3 |

| | | |
|---|---|---|
| or MKT 301 | Marketing Foundations | |
| MTH 161 | Calculus I (or equivalent; fulfills Quantitative Skills Requirement) [4] | 4 |
| **Major Area of Specialization in Supply Chain Analytics [4, 5, 6]** | | |
| MGT 303 | Operations Management (Taken as part of the Business Core) | |
| MAS 332 | Data Acquisition, Preparation and Visualization | 3 |
| MAS 342 | Introduction to Optimization and Decision Making | 3 |
| MAS 432 | Data Analysis | 3 |
| MGT 445 | Supply Chain Modeling and Analysis | 3 |
| MGT 446 | Supply Chain Strategy | 3 |
| MGT 448 | Global Sourcing | 3 |
| MGT 451 | Supply Chain Analytics Practicum | 3 |
| Quantitative Choice Course - Select one course (3 credit hours) from the following: [6] | | 3 |
| BTE 320 | Python Programming: Fundamentals and Algorithms | |
| BTE 423 | Database Management Systems | |
| ISE 465 | Inventory and Supply Chain Management | |
| ISE 568 | Facilities Planning and Logistics | |
| MAS 548 | Machine Learning for Analytics | |
| MAS 549 | Big Data Analytics | |
| MKT 302 | Marketing Research and Market Analysis | |
| MKT 369 | Marketing Analytics | |
| **Total Credit Hours** | | **120** |

1 **NOTE**: WRS 105 and WRS 106 or ENG 106, or WRS 107, must be completed prior to attaining junior year classification, per the University General Education Requirements. MTH 161 or its equivalent must be completed **prior to** the 5th semester of coursework. All courses must be taken within the current prerequisite structure.

2 At least one course with an international focus must be completed within the degree requirements. The appropriateness of the course is determined by the Associate Dean of Undergraduate Studies.

3 Students who do not earn at least a C- in WRS 106 or ENG 106 must either repeat WRS 106 or ENG 106 and earn at least a C- or complete WRS 230 with at least a C- before enrolling in BUS 300.

4 In order to declare the Supply Chain Analytics major, a BBA student needs to have earned a minimum 3.6 average for MTH 161, MAS 201, and MAS 202.

5 All specific coursework for the major area of specialization in Supply Chain Analytics must be completed with a grade of "C" or higher. A minimum cumulative GPA of 2.5 is required for all specific coursework taken in the major area of specialization.

6 Each course may satisfy a requirement in only one major or minor area of specialization or cognate (i.e., no double counting).

# Sample Plan of Study

This Sample Plan of Study represents one possible version of a new first-year Business student's 8-semester plan. The individual student's plan may vary depending upon the initial placement into English Composition and mathematics. Moreover, numerous plan variations are possible if a student enters the University with advanced college credits, wishes to participate in study abroad, chooses a special program option, or selects additional majors or minors.

Note that each major/minor at the University of Miami satisfies a particular "Area of Knowledge" within the general education requirements of the University. This means that it is possible to pursue two majors or a major and a minor within the Business School and fulfill both the STEM and People and Society Areas of Knowledge; a separate cognate in these areas would not be required. The only remaining general education Area of Knowledge would be Arts and Humanities, which must be completed through a major, minor, or cognate outside of the Business School.

Students construct their individualized plans in collaboration with their assigned Cane Navigator.

| **Freshman Year** | | |
|---|---|---|
| **Fall** | | **Credit Hours** |
| ECO 211 | Principles of Microeconomics | 3 |
| MGT 100 | Managing for Success in the Global Environment | 3 |
| MKT 201 | Foundations of Marketing | 3 |
| MTH 161 | Calculus I | 4 |
| WRS 105 | First-Year Writing I | 3 |

| | | |
|---|---|---|
| UMX 100 | The University of Miami Experience | 0 |
| | **Credit Hours** | **16** |
| **Spring** | | |
| BSL 212 | Introduction to Business Law and Ethics | 3 |
| BUS 150 | Business Analytics | 3 |
| ECO 212 | Principles of Macroeconomics | 3 |
| MAS 201 | Introduction to Business Statistics | 3 |
| WRS 106, 107, or ENG 106 | First-Year Writing II or First-Year Writing II: STEM or Writing About Literature and Culture | 3 |
| | **Credit Hours** | **15** |
| **Sophomore Year** | | |
| **Fall** | | |
| ACC 211 | Principles of Financial Accounting | 3 |
| BTE 210 | Fundamentals of Business Technology and Innovation | 3 |
| MAS 202 | Intermediate Business Statistics | 3 |
| MGT 303 | Operations Management | 3 |
| Arts and Humanities Cognate Course | | 3 |
| | **Credit Hours** | **15** |
| **Spring** | | |
| ACC 212 | Managerial Accounting | 3 |
| BUS 300 | Critical Thinking and Persuasion for Business | 3 |
| FIN 302 | Fundamentals of Finance | 3 |
| MAS 432 | Data Analysis | 3 |
| MGT 199 | Professional Development and Success in the Workplace | 1 |
| Art and Humanities Cognate Course | | 3 |
| | **Credit Hours** | **16** |
| **Junior Year** | | |
| **Fall** | | |
| MAS 332 | Data Acquisition, Preparation and Visualization | 3 |
| MGT 304 | Organizational Behavior | 3 |
| MGT 445 | Supply Chain Modeling and Analysis | 3 |
| Arts and Humanities Cognate Course | | 3 |
| Elective | | 3 |
| | **Credit Hours** | **15** |
| **Spring** | | |
| MGT 446 | Supply Chain Strategy | 3 |
| Quantitative Choice Course | | 3 |
| People and Society Cognate Course | | 3 |
| Elective | | 3 |
| Elective | | 3 |
| | **Credit Hours** | **15** |
| **Senior Year** | | |
| **Fall** | | |
| MAS 342 | Introduction to Optimization and Decision Making | 3 |
| MGT 448 | Global Sourcing | 3 |
| People and Society Choice Course | | 3 |
| Elective | | 3 |
| Elective | | 3 |
| | **Credit Hours** | **15** |
| **Spring** | | |
| MGT 401 | Strategic Management | 3 |

| | | |
|---|---|---|
| MGT 451 | Supply Chain Analytics Practicum | 3 |
| People and Society Cognate Course | | 3 |
| Elective | | 3 |
| Elective | | 1 |
| | **Credit Hours** | **13** |
| | **Total Credit Hours** | **120** |

# Additional Major Requirements

Students pursuing the BBA with an additional major area of specialization in Supply Chain Analytics must complete the BBA Business Core and the specific coursework for the Supply Chain Analytics major area of specialization. Only students pursuing the BBA degree at the University of Miami Business School are eligible to select this as an additional major.

| Code | Title | Credit Hours |
|---|---|---|
| **Major Area of Specialization in Supply Chain Analytics - Additional Major for the BBA degree** [1, 2, 3] | | |
| MGT 303 | Operations Management (Taken as part of the Business Core) | |
| MAS 332 | Data Acquisition, Preparation and Visualization | 3 |
| MAS 342 | Introduction to Optimization and Decision Making | 3 |
| MAS 432 | Data Analysis | 3 |
| MGT 445 | Supply Chain Modeling and Analysis | 3 |
| MGT 446 | Supply Chain Strategy | 3 |
| MGT 448 | Global Sourcing | 3 |
| MGT 451 | Supply Chain Analytics Practicum | 3 |
| Quantitative Choice Course - Select one course (3 credit hours) from the following: [3] | | 3 |
| BTE 320 | Python Programming: Fundamentals and Algorithms | |
| BTE 423 | Database Management Systems | |
| ISE 465 | Inventory and Supply Chain Management | |
| ISE 568 | Facilities Planning and Logistics | |
| MAS 548 | Machine Learning for Analytics | |
| MAS 549 | Big Data Analytics | |
| MKT 302 | Marketing Research and Market Analysis | |
| MKT 369 | Marketing Analytics | |
| **Total Credit Hours** | | **24** |

1 In order to declare the Supply Chain Analytics major, a BBA student needs to have earned a minimum 3.6 average for MTH 161, MAS 201, and MAS 202.

2 All specific coursework for the major area of specialization in Supply Chain Analytics must be completed with a grade of "C" or higher. A minimum cumulative GPA of 2.5 is required for all specific coursework taken in the major area of specialization.

3 Each course may satisfy a requirement in only one major or minor area of specialization or cognate (i.e., no double counting).

# Mission

- Prepare impactful principled leaders guided by renowned faculty and shaped by the vibrancy of Miami and beyond.

# Goals

Students pursuing the Bachelor of Business Administration (BBA) degree with a major area of specialization in Supply Chain Analytics are trained to become data-driven decision-makers to help companies to understand trade-offs within their supply chain, and to improve decision-making in increasingly complex and interconnected operations and supply chains.

# Student Learning Outcomes

BBA graduates will be critical thinkers who:

- Demonstrate an understanding of operations and supply chain theories and their applications
- Demonstrate skill sets necessary to source and apply supply chain data, as well as interpret and communicate the results.
- Demonstrate skill sets necessary to model decision problems of a firm's supply chain.

- Demonstrate skill sets necessary to understand pressing challenges related to operations and/or supply chain and effectively resolve them.