

# B.B.A./M.S. IN BUSINESS ANALYTICS DUAL DEGREE

## Bachelor of Business Administration in Business Analytics and Master of Science in Business Analytics

The dual BBA and Master of Science in Analytics program is designed in such a way that students can expect to complete both their Bachelor's and Master's degree within four and a half years. This accelerated program is designed to assist highly-motivated undergraduate students seeking an efficient path and an expedient start to their professional careers without sacrificing quality of education.

Students enroll in up to twelve credits of graduate work in their senior year\*. Then, at least twenty credits of graduate work is completed in the fall semester after the senior year.

\* Students in this program will only be permitted to take graduate classes if they are within 30 credits of completing the baccalaureate degree and have a minimum 3.0 GPA.

## Admission Requirements

To qualify for admission to the BBA/BSBA-MSBA programs, a student must:

- Be within 30 credits of completing the baccalaureate degree with a cumulative grade point average of 3.0 or higher.

### Requirements for Admission

- Completed application for admission submitted through BusinessCAS
- Academic transcript(s)
  - An unofficial copy of your current transcript must be uploaded with your online application.
  - Request official evaluations of transcripts from all previously attended non-U.S. institutions to be sent to BusinessCAS.
- Statement of purpose and short-essay responses to the career goal and program-related questions in BusinessCAS
- A current resume
- At least one letter of recommendation (up to three allowed) may be submitted through the BusinessCAS portal by including recommender contacts within the Program Materials section of the application.

### QUESTIONS?

Connect with Miami Herbert Business School's graduate enrollment advisors at (305) 284-2510 or by email at [mba@miami.edu](mailto:mba@miami.edu)

## Curriculum Requirements

Code	Title	Credit Hours
<b>BBA IN BUSINESS ANALYTICS (120 CREDIT HOURS)</b>		
<b>General Education Requirements <sup>1,2</sup></b>		
Written Communication Skills:		
WRS 105	First-Year Writing I	3
WRS 106 or ENG 106	First-Year Writing II <sup>3</sup> Writing About Literature and Culture	3
Quantitative Skills:		
MTH 161	Calculus I (fulfilled through the BBA business core)	
Areas of Knowledge:		
Arts and Humanities Cognate		9
People and Society Cognate		9
STEM Cognate (9 credits) (fulfilled through the major)		
<b>Additional Required Courses</b>		
UMX 100	The University of Miami Experience	0
Electives		23
<b>BBA Business Core Requirements <sup>1</sup></b>		
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 <sup>3</sup>	3
ECO 211	Principles of Microeconomics	3
ECO 212	Principles of Macroeconomics	3
FIN 302	Fundamentals of Finance	3
MAS 201	Introduction to Business Statistics <sup>4</sup>	3
MAS 202	Intermediate Business Statistics <sup>4</sup>	3
MGT 100	Managing for Success in the Global Environment	3
MGT 303	Operations Management	3
MGT 304	Organizational Behavior	3
MGT 401	Strategic Management (taken in senior year)	3
MKT 201 or MKT 301	Foundations of Marketing Marketing Foundations	3
MTH 161	Calculus I (or equivalent; fulfills Quantitative Skills Requirement) <sup>4</sup>	4
<b>Major Area of Specialization in Business Analytics<sup>4, 5, 6</sup></b>		
MAS 332	Data Acquisition, Preparation and Visualization	3
MAS 342	Introduction to Optimization and Decision Making	3
MAS 432	Data Analysis	3
Major Choice Courses - Select three courses (9 credit hours) from the following: <sup>6</sup>		9
BTE 320	Python Programming: Fundamentals and Algorithms	
BTE 423	Database Management Systems	
MAS 352	Business Analytics for Sports	
MAS 548	Machine Learning for Analytics	
MAS 549	Big Data Analytics	
Quantitative Choice Course - Select one course (3 credit hours) from the following: <sup>6</sup>		3
ECO 430	Applied Econometrics	
ECO 444	Game Theory in Economic Applications.	
FIN 303	Intermediate Financial Management	
FIN 320	Investment and Security Markets	
MGT 445	Supply Chain Modeling and Analysis	
MGT 446	Supply Chain Strategy	
MKT 302	Marketing Research and Market Analysis	
MKT 387	Digital Marketing	
MKT 389	Digital Media Metrics	
<b>MS IN BUSINESS ANALYTICS (32 CREDIT HOURS)</b>		
<b>Required Courses</b>		
BUS 610	Communicating for Career Success	2
MAS 627	Programming for Data Analytics	2
MAS 631	Statistics for Managerial Decision Making	2
MAS 632	Management Science Models for Decision Making	2
MAS 637	Applied Regression Analysis I	2
MAS 639	Data Acquisition and Preparation	2
MAS 640	Applied Time Series Analysis and Forecasting	2
MAS 646	Applied Regression Analysis II	2
MAS 648	Machine Learning for Data Analytics I	2
MAS 649	Big Data Analytics	2
MAS 650	Business Analytics Internship <sup>7</sup>	2
MAS 651	Machine Learning Methods for Artificial Intelligence	2
<b>Additional Required Courses</b>		

Electives <sup>8</sup>	8
<b>Total Credit Hours</b>	<b>152</b>

<sup>1</sup> **NOTE:** WRS 105 and WRS 106 or ENG 106, or their equivalents, 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 5<sup>th</sup> semester of coursework. All courses must be taken within the current prerequisite structure.

<sup>2</sup> At least one course with an international focus must be completed within the degree requirements. The appropriateness of the course is determined by the Vice Dean of Undergraduate Business Education.

<sup>3</sup> 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.

<sup>4</sup> In order to pursue the Business Analytics major, a BBA student needs to earn a minimum B grade (3.0) for each of the following courses: MTH 161 or MAS 110, MAS 201, and MAS 202.

<sup>5</sup> All specific coursework for the major area of specialization in Business 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.

<sup>6</sup> No course may double count in any other major, minor, or cognate.

<sup>7</sup> Students may take MAS 652 Capstone Project as a replacement of MAS 650 Management Science Internship if an internship cannot be obtained.

<sup>8</sup> Electives are based on class demand.

<sup>9</sup> MAS 627 is replaced with MAS 691 or BTE 601 for students who received an A- or better in MAS 332.

<sup>10</sup> MAS 631 is replaced with an approved elective for students who received an A- or better in MAS 311.

<sup>11</sup> MAS 632 is replaced with an approved elective for students who received an A- or better in MAS 342.

<sup>12</sup> MAS 637 is replaced with MAS 681 for students who received an A- or better in MAS 432.

<sup>13</sup> MAS 648 is replaced with an approved elective if students take MAS 681.

## Sample Plan of Study

Freshman Year		Credit Hours
<b>Fall</b>		
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
<b>Credit Hours</b>		<b>16</b>
<b>Spring</b>		
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 or ENG 106	First-Year Writing II or Writing About Literature and Culture	3
<b>Credit Hours</b>		<b>15</b>
<b>Sophomore Year</b>		
<b>Fall</b>		
ACC 211	Principles of Financial Accounting	3
BTE 210	Fundamentals of Business Technology and Innovation	3
BUS 300	Critical Thinking and Persuasion for Business	3
MAS 202	Intermediate Business Statistics	3
Arts and Humanities Cognate Course		3
<b>Credit Hours</b>		<b>15</b>
<b>Spring</b>		
ACC 212	Managerial Accounting	3
FIN 302	Fundamentals of Finance	3
MAS 432	Data Analysis	3
MGT 303	Operations Management	3

Arts and Humanities Cognate Course		3
<b>Credit Hours</b>		<b>15</b>
<b>Junior Year</b>		
<b>Fall</b>		
MAS 332	Data Acquisition, Preparation and Visualization	3
MAS 342	Introduction to Optimization and Decision Making	3
MGT 304	Organizational Behavior	3
Arts and Humanities Cognate Course		3
Elective		3
Elective		2
<b>Credit Hours</b>		<b>17</b>
<b>Spring</b>		
Major Choice Course		3
Quantitative Choice Course		3
People and Society Cognate Course		3
Elective		3
Elective		3
Elective		3
<b>Credit Hours</b>		<b>18</b>
<b>Senior Year</b>		
<b>Fall</b>		
Major Choice Course		3
People and Society Cognate Course		3
Elective		3
Elective		3
MAS 631	Statistics for Managerial Decision Making	2
MAS 637	Applied Regression Analysis I	2
MAS 648	Machine Learning for Data Analytics I	2
<b>Credit Hours</b>		<b>18</b>
<b>Spring</b>		
MGT 401	Strategic Management	3
Major Choice Course		3
People and Society Cognate Course		3
Elective		3
MAS 640	Applied Time Series Analysis and Forecasting	2
MAS 649	Big Data Analytics	2
MAS 651	Machine Learning Methods for Artificial Intelligence	2
<b>Credit Hours</b>		<b>18</b>
<b>Year One</b>		
<b>Fall</b>		
MAS 627	Programming for Data Analytics	2
MAS 639	Data Acquisition and Preparation	2
MSBA Elective		2
MSBA Elective		2
MSBA Elective		2
BUS 610	Communicating for Career Success	2
MAS 632	Management Science Models for Decision Making	2
MAS 646	Applied Regression Analysis II	2
MAS 650	Business Analytics Internship	2

MSBA Elective		2
	<b>Credit Hours</b>	<b>20</b>
	<b>Total Credit Hours</b>	<b>152</b>