MASTER OF SCIENCE IN BUSINESS ANALYTICS

Program

Requirements

The requirements for the MSBA fall into the broad categories of Essentials, Foundations, Professions, Electives, and the Capstone.

Code	Title	Credits
Essentials		
These two Essentials courses are prerequisites for later courses. Either one or both may waived with successful completion of an online test-out exam. For students pursuing the MSBA without a specialization, either one or both of these courses may count towards the three electives:		
DATA 5400	Applied Business Statistics (no prerequisites)	
DATA 5405	Python Fundamentals (no prerequisites)	
Foundations		
Each of these three Foundations courses are required for all MSBA students and form the basis and prerequisites for the Professions courses:		9
DATA 6500	Leading with Analytics (no prerequisites) [1]	
DATA 6505	Data Munging in Python (prerequisite: DATA 5405)	
DATA 6510	Data Warehousing and Visualization (no prerequisites)	
Professions		
Professions courses introduce students to the various fields and disciplines that use analytics in the real world as well as the skills most necessary for those professions. Each course has its own specific prerequisites. Students choose any three of the following courses to fulfill their Professions requirement:		9
DATA 6520	Analytics Consulting and Strategy	
DATA 6530	Statistics and Forecasting [1]	
DATA 6540	Business Intelligence and Data Storytelling	
DATA 6545	Data Science and MLOps	
DATA 6550	Big Data Management and Data Ops	
Electives		
Students are required to complete an additional 9 credits (3 courses) of graduate work. Students may choose elective courses either to fulfill the requirements of one of the specializations listed below, or to enrich their background in an area of interest. If no specialization is chosen, either or both of the Essentials courses DATA 5400 and DATA 5405 may count towards these electives. Otherwise, the courses must be at the 6500-level.		
Capstone		
Students must complete the capstone course after completing their Foundations and Professions requirements. The MSBA Capstone Experience infuses preparatory elements of the capstone course into the Foundations and Professions courses so that MSBA students are essentially ready to propose their capstone research project at the beginning of the capstone course.		
DATA 6999	Capstone: Business Analytics Applications (prerequisite: 18 or more credits of DATA courses at the 5000-level or higher)	3
Total Credits		**21**

[1] Designated research course.

[2] Students are required to complete an additional 9 credits (3 courses) of graduate work at the 6000-level. Students may choose elective courses either to fulfill the requirements of one of the specializations listed below, or to enrich their background in an area of interest. Please note*:* Students must complete the appropriate prerequisite(s) before taking 6000-level graduate courses chosen as MS Business Analytics program electives.

Accounting Specialization

To be eligible to pursue this specialization, students must have an undergraduate degree (BS or BA) with a major in accounting or the equivalent. The equivalent of an undergraduate degree in accounting includes the successful completion of: intermediate accounting (six credits), advanced accounting (three credits), cost accounting (three credits), auditing (three credits), and U.S. taxation (three credits). Deficiencies will be handled on a case-by-case basis.

To complete a specialization in Accounting, students will take any three graduate Accounting or Taxation courses at the 6000-level for their required electives. Students trying to meet educational requirements for CPA certification are encouraged to consult with the Director of Graduate Accounting Programs in selecting their graduate Accounting or Taxation courses.

Artificial Intelligence Specialization

Code	Title	Credits
To complete a specialization in Artificial Intelligence, select three courses from the following:		9
DATA 6545	Data Science and MLOps (if not already taken in Professions)	
DATA 6550	Big Data Management and Data Ops (if not already taken in Professions)	
DATA 6560	Sports Analytics (no prerequisites)	
DATA 6570	Artificial Intelligence Applications (no prerequisites)	
DATA 6575	Deep Learning and Artificial Intelligence (prerequisite: DATA 6545)	
DATA 6900	Contemporary Topics Seminar	
Total Credits		**9**

Financial Planning and Analysis Specialization

Code	Title	Credits
To complete a specialization in Financial Planning and Analysis, the following courses are required:		9
ACCT 6500	Accounting Information for Decision-Making	
FNCE 6500	Stakeholder Value	
FNCE 6530	Corporate Finance	
Total Credits		**9**

Healthcare Specialization

Code	Title	Credits
To complete a specialization in Healthcare, select three courses from the following:		9
NURS 7602	Healthcare Economics and Marketing	
NURS 7605	Advanced Health Policy	
NURS 7613	Finance and Quality Management in Healthcare Organizations	
NURS 7614	Information Technology for Healthcare Improvement	
Total Credits		**9**

Leadership Specialization

Code	Title	Credits
To complete a specialization in Leadership, select three courses from the following:		9
MGMT 6500	Leadership (prerequisite: MGMT 5400)	
MGMT 6504	Managing People for Competitive Advantage	
MGMT 6505	Human Resource Strategies: An Analytics Approach	
MGMT 6508	Strategic Management of Technology and Innovation: The Entrepreneurial Firm	
MGMT 6530	Entrepreneurship	
MGMT 6540	Cross Cultural Management and Sustainable Leadership	
MGMT 6584	Global Competitive Strategy	
Total Credits		**9**

Marketing Analytics Specialization

Code	Title	Credits
To complete a specialization in Marketing Analytics, the following courses are required:		
MKTG 6520	Research for Marketing Insights and Decisions	3
MKTG 6580	Multivariate Analysis for Consumer Insights	3
Select one course from the following:		3
MKTG 6525	Customer Experience	
MKTG 6560	Category Management and Shopper Insights	
MKTG 6570	Digital Marketing and Analytics	
MKTG 6583	Pricing Strategies and Analytics	
MKTG 6590	Experimental Research	
MKTG 6900	Contemporary Topics	
Total Credits		**9**

Note: MKTG 5400 or its equivalent is a required prerequisite for all upper-level marketing courses.

Quantitative Finance Specialization

Code	Title	Credits
To complete a specialization in Quantitative Finance, the following course is required:		
FNCE 6540	Investment Analysis	3
Select two courses from the following:		6
FNCE 6545	Portfolio Management	
FNCE 6565	Derivative Securities	
FNCE 6570	Fixed Income Securities	
FNCE 6580	Financial Risk Management	
FNCE 6595	Research Methods in Finance	
Total Credits		**9**

Dual Degree MBA and MS in Business Analytics

Students may pursue dual degrees, earning both a Master in Business Administration and a Master of Science in Business Analytics, in less time and with fewer credits than if they were to complete both degrees separately. Please see the Dual Degree MBA/MSBA section of this catalog for details.

Dual Degree MS in Finance and MS in Business Analytics

Students may pursue dual degrees, earning both a Master of Science in Finance and a Master of Science in Business Analytics, in less time and with fewer credits than if they were to complete both degrees separately. Please see the Dual Degree MSF/MSBA section of this catalog for details.