

DEPARTMENT OF MIS, OPERATIONS & SUPPLY CHAIN MANAGEMENT AND BUSINESS ANALYTICS (MOA)

Mark Jacobs, Department Chairperson

- Master of Business Analytics (p. 1)
- Certificate in Business Analytics (p. 1)
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Master of Business Analytics

The Master of Business Analytics is offered by the Department of MIS, Operations Management, and Decision Sciences. Business analytics deals with data-driven or evidence-based decision making in any business or non-profit organization. This program addresses an expanding need in many organizations for professionals trained in business data analytics with competencies in both (i) designing/managing data acquisition, storage, and display technologies and (ii) performing modeling and analysis yielding insights that lead to high levels of organizational effectiveness. The program focuses on the entire problem solving process and on applied analytics skills for real world organizational issues and problems.

The program is open to students with a variety of undergraduate majors and experiences who have some quantitative aptitude and interests. Different elective tracks are offered depending on students' prior business education and/or experience. The program culminates with a capstone consulting project, which is a final, integrating experience to develop and enhance student capabilities in applying knowledge and skills to the real practice of business analytics. The program is offered online as well as on campus in a face-to-face format

Data Management

MBA 663A	Business Analytics - Processes and Techniques	1.5
MIS 664A	Data Management for Analytics	3
MIS 667A	Advanced Business Intelligence	3
MIS 668A	Special Topics in Data Analytics	3

Analysis Methodologies

BAN 614	Introduction to Machine Learning	3
BAN 618	Advanced Business Analytics	3
MBA 611	Statistical Analysis for Business Decisions	1.5
MBA 615B	Case Studies in Analytics	1.5
MBA 791	Business Analytics	1.5

Tools/Applications of Analytics

MIS 661A	Problem Solving Methods and Tools	3
BAN 710	Capstone Project in Analytics	3
Electives ¹		6

Total Hours 33

¹ Analytic Foundations track: Select from MBA 613, MBA 616, MBA 632

Business Foundations track: Select from MBA 600A, MBA 601A, MBA 612, MBA 620, MBA 630, MBA 670

Certificate in Business Analytics

The Certificate in Business Analytics will prepare students in developing skills in quantitative methods which support managerial decision making.

MBA 511	Statistical Analysis for Business Decisions	1.5
MBA 791	Business Analytics (prerequisite: MBA 511)	1.5
MBA 663A	Business Analytics - Processes and Techniques (prerequisite MBA 791)	1.5
MBA 615B	Case Studies in Analytics (prerequisite MBA 791)	1.5
MBA 667A	Advanced Business Intelligence (prerequisites MBA 511, MBA 560, or some SQL query language)	3
Total Hours ¹		9

¹ Total credit hours do not include any prerequisites that must be satisfied for specific courses. Prerequisites have equivalent courses offered at the undergraduate level. Transfer hours may be used toward prerequisites but not toward any of the nine credit hours required for the Certificate Program.

Certificate in Business Intelligence (BIN)

The Certificate in Business Intelligence (BIN) is intended for students interested in the organizational architecture for building information systems in support of decision making. Individuals with BI qualifications are in high demand for positions in large organizations such as dunnhumby (BI provider to Kroger and Home Depot among others), 5/3 Bank, GE Appliances, Teradata, Sogeti, and Reinsurance Group of America.

MBA 664	Database Management	3
MBA 667A	Advanced Business Intelligence	3
MBA 667B	Data Warehousing	3
Total Hours ¹		9

¹ Nine semester hours do not include any prerequisites that must be satisfied for specific courses. Prerequisites that do not count toward the credits for the Certificate Program have equivalent courses offered at the undergraduate level. Transfer hours may be used toward such prerequisites but not toward any of the nine credit hours required for the Certificate Program.

Certificate in Business Systems Analysis and Design (BAD)

The Certificate in Business Systems Analysis and Design provides career-switching preparation for individuals interested in systems analysis and design but do not have the required undergraduate coursework. It also provides preparation for individuals whose expertise is in other areas (e.g. marketing, finance, accounting, health care, manufacturing, etc.) to become knowledgeable contributors to teams that are responsible for developing information systems to support their primary area of expertise.

MBA 664	Database Management	3	prerequisites but not toward any of the nine credit hours required for the Certificate Program.
MBA 665	System Analysis & Design	3	
MBA 616	Project Management for Professionals	3	
or MBA 668	Advanced Website Development		
Total Hours ¹		9	

¹ Nine credit hours do not include any prerequisites that must be satisfied for specific courses. Prerequisites that do not count toward the credits for the Certificate Program have equivalent courses offered at the undergraduate level. Transfer hours may be used toward such prerequisites but not toward any of the nine credit hours required for the Certificate Program.

Certificate in Cyber-Security Management (CSM)

The focus of the CSM coursework is on both management and technical aspects needed to secure computer information systems and networks. It also focuses on aspects of information warfare that may be relevant to Department of Defense and other government entities. The skill sets acquired in the program are also useful in private industry (in particular for those who work in defense and government-related industries as well as banks and credit unions).

MBA 662A	Security Management for Informational Systems	3
MBA 662B	Telecommunications and Networking	3
MBA 662C	Internet Security	3
Total Hours ¹		9

¹ Nine semester hours do not include any prerequisites that must be satisfied for specific courses. Prerequisites that do not count toward the credits for the Certificate Program have equivalent courses offered at the undergraduate level. Transfer hours may be used toward such prerequisites but not toward any of the nine credit hours required for the Certificate Program.

Certificate in Project Management (PJM)

The Certificate in Project Management will prepare students to be effective contributors and leaders in today's contemporary business world. Project-oriented work makes up the bulk of managerial activity in today's organizations with multi-dimensional and increasingly complex projects being the norm. This certificate program will be of value to students and employees of all business functions as project improvement initiatives are prevalent in all business disciplines (finance, accounting, marketing, operations, MIS, etc.).

MBA 616	Project Management for Professionals	3
MBA 695	Individual Research (Project Management Experiential Application)	3
MBA 617	Business Process Improvements	3
or MBA 665	System Analysis & Design	
Total Hours ¹		9

¹ Total credit hours do not include any prerequisites that must be satisfied for specific courses. Prerequisites have equivalent courses offered at the undergraduate level. Transfer hours may be used toward