

# Curriculum: Master of Science in Business Analytics

## Master of Science in Business Analytics Effective September 2018 (30-33 credits)

### Program Foundation Course: (1 course)

<u>Course</u>	<u>Title</u>	<u>Prerequisite</u>
GR521	Managerial Statistics	None

### Required Analytics Courses: (7 courses)

CS 605	Data Management and SQL for Analytics	None
IPM 652	Managing with Analytics	None
MA 610	Optimization and Simulation for Business Decisions	GR521
MA 611	Time Series Analysis	ST625
MA 710	Data Mining	ST635
ST 625	Quantitative Analysis for Business	GR521
ST 635	Intermediate Statistical Modeling for Business	ST625

### Elective Courses: (3 courses)

Select any 3 courses from the following electives or, with permission from the MSBA Program Director, any 600-level or higher elective

ST 701	Internship in Business Data Analysis	ST635
MA 705	Data Science	Pre or Co-Req: GR 521
MA 706	Design of Experiments for Business	ST625
MA 707	Introduction to Machine Learning	ST635 and MA705
MA 799	Analytics Project	ST635, CS605 and MA611
CS 602	Data-Driven Development with Python	None
CS 603	Object-Oriented Application Development	None
CS 612	Web-Based Application Development	CS603 and Pre or Co-Req: CS605
CS 650	Data Management Architectures	CS602 and CS605
CS 733	Artificial Intelligence Techniques & Applications	CS602 and CS605
CS 753	Business Intelligence Methods & Technologies	CS605 or IPM652
EC 611	The Macroeconomics of Financial Markets	GR521, GR522, GR524 and GR525
EC 631	Market Structure and Firm Strategy	GR522
FI 623	Investments	None
FI 635	Fixed Income Valuation and Strategies	Pre or Co-Req: FI623
FI 640	Equity Valuation	FI623
FI 645	Derivatives	Pre or Co-Req: FI623
GR 602	Business Process Management	IPM Department Chair Permission
HF 730	Visualizing Information	None
IPM 723	Information Security, Control and Ethics	None
IPM 755	Special Topics in Information Process Management	Varies with topic
MK 711	Marketing Research & Analysis	Pre or Co-Req: GR521 and GR523
MK 725	E-Marketing	GR523
MK 726	Customer Data Analysis and Relationship Marketing	GR523
MK 758	Enhancing Creativity	None
GR 603	Leading Responsibly	Instructor Permission
MG 632	Managing Effective Work Teams	None
MG 635	Negotiating	None
MG 645	Leading Change	None

### ADVISING GUIDANCE

- All course work must be completed within five years.
- All course prerequisites must be satisfied. Please note that the stated prerequisites of a course may also have a prerequisite that must be satisfied.
- GR500 and GR600 level courses are designated on the course schedule as “D”, “P”, or “AL”. The “D” section is reserved for students whose primary degree is Full-Time MBA and the “P” sections are reserved for all other MS and Part-Time MBA students. The “AL” section is reserved for Accelerated Online MBA students with a limited number of seats open to students in other programs.