BUSINESS ANALYTICS (MS)

The Master of Science in Business Analytics offers a unique blend of courses with a strong focus on data analytics–and it can be completed in one year.

This STEM-designated degree emphasizes important skills and tools in the information systems and analytics space such as SQL, Python, R, Tableau, database and data warehouse modeling, data mining, data visualization, and data storytelling.

CURRICULUM

The 12-course curriculum of the Master of Science in Business Analytics prepares you to be a responsible leader in the fast-growing information systems and analytics fields.

Courses are offered in online, hybrid, and in-class formats. Students can complete all 12 courses in one year and completely online.

All MS students will be awarded the Business Analytics Certificate (https://catalog.luc.edu/graduate-professional/business/business-analytics-certificate/) as well. The Business Analytics certificate is a 5-course graduate Quinlan program, and all its courses are a part of the MS program.

Students with previous information systems coursework and part-time students should contact Nenad Jukić (njukic@luc.edu), the program director, for more information on how their courses would be sequenced.

Code	Title	Hours
Required Courses [1]		
INFS 443	Business Analytics	3
INFS 492	Database Systems	3
INFS 494	Data Mining	3
INFS 592	Data Visualization	3
INFS 791	Programming for Business Decision Making	3
INFS 796	Data Warehousing	3
ISSCM 491	Managerial Statistics	3
Electives		**9**
Group One (Take up to 5 Courses)		
INFS 485	Business Requirement Analysis	
INFS 493	Strategic Use of Database Analytics	
INFS 691	Principles of Analytic Programming	
INFS 797	Applications of Visualization	
INFS 798	Quality in Product Management	
Group Two (Take 0 to 4 Courses) [2]		
ECON 522	Game Theory & Strategy	
ECON 622 / FINC 622	Derivative Securities	
ECON 625 / FINC 625	Applied Econometrics	
FINC 452	Investment Management	
FINC 553	Applied Portfolio Management	
FINC 624	Interest Rate Risk Management	
FINC 626	Credit Risk Management and Structured Finance	
HRER 490	Analytical Problem Solving	
ISSCM 495	Forecasting Methods	
ISSCM 484N	Project Management	
ISSCM 596N	Data Driven Decision Making	
MARK 461	Research Methods in Marketing	
MARK 468	Digital Marketing	
MARK 562	Database Marketing Strategy	
MARK 661	Customer Analytics	
MARK 662	Marketing Metrics	
SCMG 480	Intro to Operations Management	
SCMG 486	Global Logistics	
SCMG 487	Purchasing Management	
SCMG 488	Inventory Management	
SCMG 489	Supply Chain Analytics	
Ethics Requirement (Take 1 Course)		**3**
ETHC 441N	Business Ethics	
INFS 795	Ethics and Data Analytics	
MGMT 446	International Business Ethics	
Practicum		**3**
Select one of the following:		
INFS 797	Applications of Visualization	
INFS 798	Quality in Product Management	
BSAD 699	Capstone Master of Business Data Analytics	
Total Hours		**36**

[1] Some courses may be substituted based on previous coursework with the permission of the program director.

[2] Additional courses may be approved by the program director.

Suggested Sequence of Courses

The below sequence of courses is meant to be used as a suggested path for completing coursework. An individual student's completion of requirements depends on course offerings in a given term as well as the start term for a major or graduate study. Students should consult their advisor for assistance with course selection.

Course	Title	Hours
Year 1		
Fall		
INFS 492	Database Systems	3
INFS 795	Ethics and Data Analytics	3
ISSCM 491	Managerial Statistics	3
	Hours	**9**
Winter		
INFS 443	Business Analytics	3
INFS 485	Business Requirement Analysis	3
INFS 796	Data Warehousing	3
	Hours	**9**
Spring		
INFS 494	Data Mining	3
INFS 592	Data Visualization	3
INFS 691	Principles of Analytic Programming	3
	Hours	**9**
Summer		
INFS 493	Strategic Use of Database Analytics	3

INFS 791	Programming for Business Decision Making	3
INFS 797	Applications of Visualization	3
	Hours	**9**
	Total Hours	**36**

Graduate & Professional Standards and Regulations

Students in graduate and professional programs can find their Academic Policies in Graduate and Professional Academic Standards and Regulations (https://catalog.luc.edu/academic-standards-regulations/graduate-professional/) under their school. Any additional University Policies supercede school policies.

LEARNING OUTCOMES

At the completion of the program, graduates are expected to:

1. Use data to drive strategic and tactical business decisions;
2. Utilize sophisticated database, data warehousing, data mining, and data visualization methodologies and techniques to capture and apply data as a corporate asset;
3. Demonstrate competence with various languages and tools, SQL, R, Tableau, and Python;
4. Lead, supervise, and manage information systems projects of varying levels of complexity;
5. Demonstrate effective communication skills with technical and non-technical individuals and groups;
6. Show ability to effectively collaborate with and provide technical leadership to a variety of business units and organizations;
7. Demonstrate a high level of technical aptitude in design, development, and use of information systems components;
8. Integrate values and ethics into data analysis and information systems projects and solutions.