DATA SCIENCE MINOR

Students earning a minor in data science will gain foundational skills needed to work with many different types of data, and to analyze, visualize, and extract useful information from data in a variety of ways. The program includes courses from Mathematics, Statistics and Computer Science.

Related Programs

Major

- Data Science (BS) (https://catalog.luc.edu/undergraduate/arts-sciences/data-science/data-science-bs/)

Combined

- Data Science (BS/MS) (https://catalog.luc.edu/undergraduate/accelerated-bachelors-masters-program/data-science-bsms/)

Curriculum

Code	Title	Hours
Required Courses		
Choose one of the following MATH sequences:		6-8
MATH 161 & MATH 162	Calculus I and Calculus II	
MATH 131 & MATH 132	Applied Calculus I and Applied Calculus II	
DSCI 101	Fundamentals of Modern Data Science with R	3
STAT 203	Introduction to Probability & Statistics	3
STAT 308	Applied Regression Analysis	3
COMP 141	Introduction to Computing Tools and Techniques	3
MATH 215 / COMP 215	Object-Oriented Programming with Mathematics	3
COMP 231	Data Structures & Algorithms for Informatics	3
STAT 338 or COMP 379	Predictive Analytics or Machine Learning	3
Total Hours		**27-29**

Suggested Sequence of Courses

Course	Title	Hours
Year 1		
Fall		
MATH 161 or MATH 131	Calculus I or Applied Calculus I	4
	Hours	**4**
Spring		
MATH 162 or MATH 132	Calculus II or Applied Calculus II	4
	Hours	**4**
Year 2		
Fall		
DSCI 101	Fundamentals of Modern Data Science with R	3
	Hours	**3**
Spring		
COMP 141	Introduction to Computing Tools and Techniques	3
	Hours	**3**
Year 3		
Fall		
STAT 308	Applied Regression Analysis	3
COMP 215 / MATH 215	Object Oriented Programming with Mathematics	3
	Hours	**6**
Spring		
STAT 203	Introduction to Probability & Statistics	3
COMP 231	Data Structures & Algorithms for Informatics	3
	Hours	**6**
Year 4		
Fall		
STAT 338 or COMP 379	Predictive Analytics or Machine Learning	3
	Hours	**3**
	Total Hours	**29**

Learning Outcomes

- The ability to manage data sets in preparation for data science analysis
- A working knowledge of traditional statistical techniques and the ability to apply these methods to a wide array of real-world problems
- The ability to program in both the R and Python programming languages