

# Data Science, Minor

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Data Science is the emerging field that seeks to extract and quantify knowledge from data. The interdisciplinary Data Science minor (INDS) integrates statistics and mathematics with computer science, allowing students to develop the knowledge and skills necessary to discover and quantify new knowledge from data. Those prepared to integrate advanced technology with modern statistical and mathematical practices have the opportunity to use data in action to benefit society. Data scientists turn data into knowledge.

## Interdisciplinary Minor in Data Science

The interdisciplinary data science minor consists of 19 credit hours of courses, including five required computer science and mathematics courses (16 credit hours) and an additional 3 credit hours of an advanced elective.

Code	Title	Hours
Required Computer Science courses:		
COSC 1010	Introduction to Software Development	4
COSC 4610	Data Mining	3
Required Mathematics courses: Choose one of the following sequences:		
MATH 1700 & MATH 2780	Modern Elementary Statistics and Introduction to Regression and Classification	6
MATH 4720 & MATH 4780	Statistical Methods and Regression Analysis	
Required Computer Science or Mathematics course:		
COSC 3570 or MATH 3570	Introduction to Data Science Introduction to Data Science	3
Advanced elective: Choose one of the following courses:		
COSC 3090	Bioinformatics Algorithms	3
COSC 4500	Visual Analytics	
COSC 4600	Fundamentals of Artificial Intelligence	
COSC 4800	Principles of Database Systems	
MATH 3100	Linear Algebra and Matrix Theory	
MATH 4700	Theory of Probability	
MATH 4710	Mathematical Statistics	
MATH 4760	Time Series Analysis	
MATH 4780	Regression Analysis	
<b>Total Credit Hours:</b>		<b>19</b>

### Notes:

- Other courses may be approved as an advanced elective with the consent of the departments.
- The MATH 1700 Modern Elementary Statistics and MATH 2780 Introduction to Regression and Classification sequence is recommended for students without a background in calculus. With the departments consent, MATH 1700 Modern Elementary Statistics may substituted with an equivalent statistics course.
- The MATH 4720 Statistical Methods and MATH 4780 Regression Analysis sequence is recommended for students who have successfully completed a college level calculus course and are comfortable with calculus. MATH 4740 Biostatistical Methods and Models may be substituted for MATH 4720 Statistical Methods.

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