

# DATA SCIENCE, CERTIFICATE

---

## Program Description

The program covers concepts such as probability, inference, regression, and machine learning and helps you develop an essential skill set that includes R programming, deeper knowledge of probability and statistics, and learn tools to analyze big data sets and to design of the experiments.

## Admissions Requirements

To be enrolled in the university. Calculus I, Calculus II, and some programming skills required. Calculus III preferred.

## Program Requirements

Code	Title	Hours
<b>CORE COURSES:</b>		
MATH 3342	Applied Probability and Statistics	3
or MATH 3345	Statistical Modeling and Data Analysis	
MATH 3347	Introduction to Probability	3
MATH 3349	Principles of Data Science	3
MATH 3311	Linear Algebra	3
<b>Electives</b>		
Select two of the following:		6
MATH 3300	Geospatial Mathematical Techniques	
or GISC 330C	Geospatial Mathematical Techniques	
MATH 3385	Linear Optimization and Decisions	
COSC 4345	Introduction to Machine Learning	
MATH 4321	Applied Regression Analysis	
MATH 4342	Introduction to Mathematical Statistics	
MATH 4385	Applied Modeling	
<b>Total Hours</b>		<b>18</b>