

# DATA SCIENCE MINOR

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The Data Science minor will encourage students to gain valuable experience and preparation for the growing field of Data Science, an interdisciplinary field combining elements of mathematics, statistics, and computing. Through completing the minor, students will

- learn how to acquire and manage "big data"
- learn how to use foundational tools of statistical science and machine learning
- gain technical expertise in programming using R and Python
- explore applications of data science in their chosen major disciplines

## Data Science minor requirements (18 credits)

Code	Title	Credits
<b>Required Courses</b>		
MTH 360 or MTH 361	Elementary Probability and Statistics Probability and Statistics in the Health Sciences	3
MTH 362	Statistical Modeling	3
MTH 365	Introduction to Data Science	3
MTH 366	Machine Learning	3
CSC 221 or CSC 222	Introduction to Programming Object-Oriented Programming	3
One additional course chosen from the following:		3
ANT/SOC 570	Introduction to Geographic Information Systems	
BIA 472	Visual Analytics and Visualization	
BIA 480	Business Analytics	
BIA 484	Data Mining Techniques	
BIA 485	Applications of Artificial Intelligence	
BIO 501	Bioinformatics: Genomics Approach	
CSC 321	Data Structures	
CSC 421	Algorithm Design and Analysis	
ECO 418	Econometrics	
ECO 433	Regional Economic Analysis	
FIN 505	Financial Modeling	
HIS 316	Introduction to Digital Humanities	
HIS 435	Digital Cultures	
MKT 343	Marketing Research	
MKT 479	Seminar in Marketing	
MTH 561	Mathematical Statistics I	
PHY 553	Computational Physics	
PLS 421	Public Opinion, Political Behavior And Survey Research	
PSY 370	Applying Research Methods and Statistics in Psychology	
<b>Total Credits</b>		<b>18</b>