

# DATA SCIENCE MINOR

The Minor in Data Science is jointly offered by the Department of Statistics and the Department of Computer Science and Engineering.

It is designed for students in any discipline that uses large data sets, including the sciences, engineering, business, mathematics, and the social sciences.

## Degree Requirements (18-19 Hours)

### Prerequisites (8 hours)

Course	Title	Credits
MATH 122	Calculus for Business Administration and Social Sciences	3
or MATH 141	Calculus I	
<b>Total Credit Hours</b>		<b>3</b>

### Minor Requirements (18 or 19 Hours)

Course	Title	Credits
<b>Required Foundation Course</b>		
CSCE 145	Algorithmic Design I	4
or CSCE 106	Scientific Applications Programming	
<b>Core Computing Courses</b>		
CSCE 587	Big Data Analytics	3
CSCE 567	Visualization Tools	3
<b>Core Statistics Courses</b>		
STAT 509	Statistics for Engineers	3
or STAT 515	Statistical Methods I	
STAT 530	Applied Multivariate Statistics and Data Mining	3
<b>Elective Course</b>		
Select one of the following:		3
Options requiring no additional pre-requisites:		
CSCE 146	Algorithmic Design II	
STAT 516	Statistical Methods II	
Options requiring additional pre-requisites:		
MATH 344	Applied Linear Algebra	
CSCE 520	Database System Design	
CSCE 564	Computational Science	
CSCE 569	Parallel Computing	
CSCE 582	Bayesian Networks and Decision Graphs	
STAT 511	Probability	
STAT 512	Mathematical Statistics	
STAT 517	Advanced Statistical Models	
STAT 535	Introduction to Bayesian Data Analysis	
STAT 582	Bayesian Networks and Decision Graphs	
<b>Total Credit Hours</b>		<b>19</b>

Note: The Data Science Minor is designed for students in any discipline that uses large data sets, including Biology, Business, Mathematics, Psychology, etc. Choosing the correct courses is more complicated for students majoring in Computer Engineering, Computer Science, Computer Information Systems, and Statistics.

## Course Substitutions

No course used to satisfy a Carolina Core, major, or other minor requirement may be used for the Data Science Minor. In the event of conflict, any elective course may be substituted for a required course in this minor.

## Administration of the Minor

Curricula and other decisions of the minor will be made by a committee composed of two faculty appointed by the Chair of Statistics and two faculty appointed by the Chair of Computer Science and Engineering.