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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MATH 122</td>
<td>Calculus for Business Administration and Social Sciences</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 141</td>
<td>Calculus I</td>
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</table>

Total Credit Hours 3

Minor Requirements (18 or 19 Hours)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Required Foundation Course</td>
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<tr>
<td>CSCE 145</td>
<td>Algorithmic Design I</td>
<td>4</td>
</tr>
<tr>
<td>or CSCE 106</td>
<td>Scientific Applications Programming</td>
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Core Computing Courses

CSCE 587  Big Data Analytics 3
CSCE 567  Visualization Tools 3

Core Statistics Courses

STAT 509  Statistics for Engineers 3
or STAT 515  Statistical Methods I 3
STAT 530  Applied Multivariate Statistics and Data Mining 3

Elective Course

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

Total Credit Hours 19

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.

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.