**M.S. IN APPLIED STATISTICS - DATA SCIENCE CONCENTRATION**

*College of the Sciences and Mathematics*

**Curriculum**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Required</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STA 503</td>
<td>Introduction to R</td>
<td>1</td>
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<tr>
<td>STA 505</td>
<td>Mathematical Statistics I</td>
<td>3-4</td>
</tr>
<tr>
<td>or STA 504</td>
<td>Mathematical Statistics I with Calculus Review</td>
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<tr>
<td>STA 506</td>
<td>Mathematical Statistics II</td>
<td>3</td>
</tr>
<tr>
<td>STA 507</td>
<td>Introduction to Categorical Data Analysis</td>
<td>3</td>
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<tr>
<td>STA 511</td>
<td>Intro Stat Computing &amp; Data Management</td>
<td>3</td>
</tr>
<tr>
<td>STA 512</td>
<td>Principles of Experimental Analysis</td>
<td>4</td>
</tr>
<tr>
<td>STA 513</td>
<td>Intermediate Linear Models</td>
<td>4</td>
</tr>
<tr>
<td>STA 514</td>
<td>Modern Experimental Design</td>
<td>3</td>
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<tr>
<td><strong>Electives</strong></td>
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<tr>
<td>Select 9 credits from the following list of electives (other STA electives may be substituted with permission of the Program Director):</td>
<td>9</td>
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<tr>
<td>STA 534</td>
<td>Time Series</td>
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<tr>
<td>STA 536</td>
<td>Data Mining</td>
<td></td>
</tr>
<tr>
<td>STA 537</td>
<td>Advanced Statistical Programming Using SAS</td>
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<tr>
<td>STA 538</td>
<td>Statistical Programming Using R</td>
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<tr>
<td>STA 543</td>
<td>Statistical Methods in Business and Finance</td>
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<tr>
<td>STA 544</td>
<td>Applied Marketing Analytics</td>
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<tr>
<td>STA 546</td>
<td>Foundations of Bioinformatics</td>
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<tr>
<td>STA 551</td>
<td>Foundations of Data Science</td>
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<tr>
<td>STA 552</td>
<td>Applied Statistical Machine Learning</td>
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<tr>
<td>STA 553</td>
<td>Data Visualization</td>
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<tr>
<td>STA 601</td>
<td>Internship In Applied Statistics</td>
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<tr>
<td>STA 609</td>
<td>Thesis I</td>
<td></td>
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<tr>
<td>STA 610</td>
<td>Thesis II</td>
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</tr>
<tr>
<td>CSC 545</td>
<td>Database Systems Concepts</td>
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</table>

**Total Minimum Credits Required** 33