### Integrated Studies - Mathematical Sciences Emphasis, B.A./B.S.

**Mathematical Sciences Emphasis Requirements**

**32 credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Complete the following through coursework or credit by examination:</td>
<td></td>
</tr>
<tr>
<td>MATH 1050</td>
<td>College Algebra / Pre-Calculus (MA)(^1)</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1060</td>
<td>Trigonometry (MA)(^1)</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1210</td>
<td>Calculus I (MA)</td>
<td>4</td>
</tr>
<tr>
<td>MATH 1220</td>
<td>Calculus II (MA)</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2200</td>
<td>Discrete Mathematics</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete 15 credits from the following courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 3000</td>
<td>History of Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3100</td>
<td>Euclidean / Non-Euclidean Geom</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3150</td>
<td>Introduction to Partial Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3200</td>
<td>Introduction to Analysis I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3210</td>
<td>Introduction to Analysis II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3400</td>
<td>Probability &amp; Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3500</td>
<td>Numerical Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3900</td>
<td>Number Theory</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4000</td>
<td>Foundations of Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4010</td>
<td>Abstract Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4100</td>
<td>Introduction to Topology</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4200</td>
<td>Introduction to Complex Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

\(^1\) MATH 1080 will meet both the MATH 1050 and MATH 1060 requirements.

**Notes:**

1. Students must select and complete two emphases and Core Requirements.
2. Grade C or higher in each Emphasis Area course required.