MATHEMATICAL PROBLEM SOLVING, MINOR-LIBERAL ARTS

Liberal Arts (Code 180-409)

A minimum of 24 credits from mathematics courses must be earned as described below.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 114</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 365</td>
<td>Patterns of Problem Solving</td>
<td>4</td>
</tr>
<tr>
<td>At least one of:</td>
<td></td>
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<tr>
<td>MATH 314</td>
<td>Discrete Mathematics</td>
<td></td>
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<tr>
<td>MATH 322</td>
<td>Abstract Algebra for Elementary Teachers</td>
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<tr>
<td>Additional courses may be chosen from:</td>
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<tr>
<td>MATH 201</td>
<td>Number and Operations I</td>
<td></td>
</tr>
<tr>
<td>MATH 202</td>
<td>Number and Operations II</td>
<td></td>
</tr>
<tr>
<td>MATH 246</td>
<td>Elementary Statistics</td>
<td></td>
</tr>
<tr>
<td>MATH 297</td>
<td>Developmental Tutoring Techniques</td>
<td></td>
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<tr>
<td>MATH 301</td>
<td>Developmental Tutoring Techniques (At most two credits count for minor)</td>
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<tr>
<td>MATH 302</td>
<td>Algebraic Thinking</td>
<td></td>
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<tr>
<td>MATH 303</td>
<td>Probability and Statistical Thinking</td>
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<tr>
<td>MATH 304</td>
<td>Geometric Thinking</td>
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<tr>
<td>MATH 307</td>
<td>Mathematics and Music</td>
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</tr>
<tr>
<td>MATH 330</td>
<td>Modern Geometry</td>
<td></td>
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<tr>
<td>MATH 341</td>
<td>Classical Number Theory</td>
<td></td>
</tr>
<tr>
<td>MATH 441</td>
<td>Linear Regression Analysis, with Time Series</td>
<td></td>
</tr>
<tr>
<td>MATH 451</td>
<td>Teaching Mathematics with Technology</td>
<td></td>
</tr>
<tr>
<td>MATH 462</td>
<td>History of Mathematics</td>
<td></td>
</tr>
<tr>
<td>Or other mathematics courses numbered above 305</td>
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</tbody>
</table>

Note: Students cannot pursue a major in Mathematics and this minor to meet graduation requirements for completing a first and second degree program.

Program Learning Outcome

Students completing this program will be expected to meet the following learning outcomes:

- Make sense of problems and persevere in solving them.
- Construct viable arguments and critique the reasoning of others utilizing precise language and multiple representations.
- Use appropriate tools strategically.
- Look for and make use of structure.