

## MATH1116 - College Trigonometry

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| Credits:           | 3 (3/0/0)   |
| Description:       | Meets MnTC Goal Areas 2 and 4. Topics include trigonometric functions, right triangle trigonometry, radian measure and circular functions, identities, equations, inverse functions, laws of cosines and sines. Optional topics may include complex numbers, vectors and polar coordinates.   |
| Prerequisites:     | <ul style="list-style-type: none"> <li>• MATH1114</li> </ul>  |
| Corequisites:      |   |
| Pre/Corequisites*: |   |
| Competencies:      | <ol style="list-style-type: none"> <li>1. Use circular methods to define trigonometric functions.</li> <li>2. Use right triangle methods to define trigonometric functions.</li> <li>3. Analyze the characteristics of trigonometric functions, their inverses and graphs.</li> <li>4. Solve trigonometric equations.</li> <li>5. Identify and prove trigonometric identities.</li> <li>6. Use trigonometric identities to evaluate functions and simplify expressions.</li> <li>7. Solve applications involving trigonometric concepts.</li> <li>8. Explore the Law of Cosines.</li> <li>9. Explore the Law of Sines.</li> </ol> |
| MnTC goal areas:   | <ol style="list-style-type: none"> <li>2. Critical Thinking</li> <li>4. Mathematics/Logical Reasoning</li> </ol>  |

\*Can be taking as a Prerequisite or Corequisite.