

## MATH1115 - Functions/Trigonometry

Credits:	4 (4/0/0)
Description:	Meets MnTC Goal Areas 2 and 4. This course includes trigonometric functions, right triangle trigonometry, radian measure and circular functions, identities, equations, inverse functions, oblique triangles, complex numbers, vectors, polar coordinates and conic sections.
Prerequisites:	• MATH1114
Corequisites:	
Pre/Corequisites*:	
Competencies:	<ol style="list-style-type: none"> <li>1. Use the circular method to define trigonometric functions.</li> <li>2. Use the right triangle method 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 and the Law of Sines.</li> <li>9. Apply vector concepts to find solutions in the plane and in three dimensional space.</li> <li>10. Explore complex numbers and their trigonometric form.</li> <li>11. Analyze the characteristics of parabolas, ellipses, and hyperbolas.</li> <li>12. Explore polar coordinates, equations and their graphs.</li> </ol>
MnTC goal areas:	2. Critical Thinking 4. Mathematics/Logical Reasoning

\*Can be taking as a Prerequisite or Corequisite.