

## 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> <li>Use the circular method to define trigonometric functions.</li> <li>Use the right triangle method to define trigonometric functions.</li> <li>Analyze the characteristics of trigonometric functions, their inverses and graphs.</li> <li>Solve trigonometric equations.</li> <li>Identify and prove trigonometric identities.</li> <li>Use trigonometric identities to evaluate functions and simplify expressions.</li> <li>Solve applications involving trigonometric concepts.</li> <li>Explore the Law of Cosines and the Law of Sines.</li> <li>Apply vector concepts to find solutions in the plane and in three dimensional space.</li> <li>Explore complex numbers and their trigonometric form.</li> <li>Analyze the characteristics of parabolas, ellipses, and hyperbolas.</li> <li>Explore polar coordinates, equations and their graphs.</li> </ol>
MnTC goal areas:	Critical Thinking     Mathematics/Logical Reasoning

\*Can be taking as a Prerequisite or Corequisite.