Minnesota State
Community and Technical College

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:	1. Use the circular method to define trigonometric functions. 2. Use the right triangle method to define trigonometric functions. 3. Analyze the characteristics of trigonometric functions, their inverses and graphs. 4. Solve trigonometric equations. 5. Identify and prove trigonometric identities. 6. Use trigonometric identities to evaluate functions and simplify expressions. 7. Solve applications involving trigonometric concepts. 8. Explore the Law of Cosines and the Law of Sines. 9. Apply vector concepts to find solutions in the plane and in three dimensional space. 10. Explore complex numbers and their trigonometric form. 11. Analyze the characteristics of parabolas, ellipses, and hyperbolas. 12. Explore polar coordinates, equations and their graphs.
MnTC goal areas:	2. Critical Thinking 4. Mathematics/Logical Reasoning

*Can be taking as a Prerequisite or Corequisite.