Course Title: Trigonometry

Course Number: Math 1060

Course Credit Hours: 3

Prerequisites: Math 1010 with a grade of C or better, or ACT score of at least 23, or Placement Test.

Catalog Description: Trigonometric functions, equations, identities, and applications. Complex numbers and polar coordinates.

Objectives: Students should learn the basic skills in trigonometry which will be needed in subsequent courses and in the solution of practical problems.

1. Understand trigonometric and inverse trigonometric functions and be able to find their exact values for standard angles and numbers.
2. Be able to solve right and oblique triangles using the definitions of trigonometric functions and Laws of Sines or Cosines.
3. Solve application problems by solving appropriate triangles.
4. Graph trigonometric functions.
5. Know standard trigonometric identities and be able to establish or disprove equations as trigonometric identities.
6. Be able to solve trigonometric equations.
7. Understand vectors and vector algebra and be able to solve applied problems using vectors.
8. Understand polar coordinates and graph polar equations.

Course Coverage:
1. Trigonometric Functions
2. Graphing Trigonometric Functions
3. Trigonometric Identities
4. Trigonometric Equations
5. Applications of Trigonometric Functions
6. Inverse Trigonometric Functions
7. Complex Numbers
8. Polar Coordinates


Required/Optional Sections:
Chap 7: Sec 7.1-7.7, 7.8 (Phase Shift, Optional: Sinusoidal Curve Fitting)
Chap 8: Sec 8.1-8.5, 8.7, 8.8, Optional: 8.6
Chap 9: Sec 9.1-9.4, Optional: 9.5
Chap 10: Sec 10.1-10.4, Optional: 10.5