**Catalog Description:**
Trigonometric functions and their properties. Vectors, polar coordinates and complex numbers.

**Prerequisite:**
C- or better in 1148, or permission of department.

**Exclusions:**
Not open to students with credit for 1144, or for any math course numbered 1150 or higher.

**Text:**
College Algebra & Trigonometry Mathematics 1e, by Miller and Gerken, ISBN 9781259976612. This textbook is packaged with an access code to Connect Math for a period of 720 days. It may be purchased at the bookstore or online via Carmen/Canvas.

**Technology:**
A graphing calculator is a required component in this course. It is recommended that you use a TI-83, TI-83 plus, or a TI-84. Note that the TI-89, TI-92, and calculators that use a Computer Algebra System are not permitted.

**Topics List:**

5.1 Angles and Their Measure
5.2 Right Triangle Trigonometry
5.3 Trigonometric Functions of any Angle
5.4 Trigonometric Functions and the Unit Circle
5.5 Graphs of Sine and Cosine Functions. **Omit sinusoidal behavior.**
5.6 Graphs of Other Trigonometric Functions.

*Midterm 1*

5.7 Inverse Trigonometric Functions. **Omit inverse cot(t), sec(t), and csc(t).**
6.1 Fundamental Trigonometric Identities
6.2 Sum and Difference Formulas
6.3 Double-Angle and Half-Angle Formulas
6.5 Trigonometric Functions. **Solving graphically is optional.**
7.2 The Law of Sines
7.3 The Law of Cosines

*Midterm 2*
8.3 Complex Numbers in Polar Form. **Omit n\textsuperscript{th} roots of complex numbers.**
8.4 Vectors
8.5 Dot Product
11.1 The Ellipse. **Centered at the origin only (omit center (p,q)).**
11.2 The Hyperbola. **Centered at the origin only (omit center (p,q)).**
11.3 The Parabola. **With vertex at the origin (omit vertex (p,q)).**