



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^{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)).