

**Topics for Precalculus
MATH 1113
Georgia Highlands College
Revised July 2008**

TOPICS

- Trigonometric Functions
 - Right Triangle Perspective
 - Unit Circle Perspective
- Graphs of Trigonometric Functions
- Inverse Trigonometric Functions
- Trigonometric Identities
- Trigonometric Equations
- Law of Sines
- Law of Cosines
- Vectors
- DeMoivre's Theorem

TEXTBOOK

Precalculus, Third Edition, Robert Blitzer (ISBN 0-13-187479-9)

CALCULATOR REQUIREMENT

TI-83, TI-84, or equivalent graphing calculator is required.

SUGGESTED COURSE CONTENT

Chapter 4	Trigonometry
4.1	Angles and Radian Measure
4.2	Trigonometric Functions: The Unit Circle
4.3	Right Triangle Trigonometry
4.4	Trigonometric Functions of Any Angle
4.5	Graphs of Sine and Cosine Functions
4.6	Graphs of Other Trigonometric Functions
4.7	Inverse Trigonometric Functions
4.8	Applications of Trigonometric Functions

Chapter 5	Analytic Trigonometry
5.1	Verifying Trigonometric Identities
5.2	Sum and Difference Formulas
5.3	Double-Angle, Power-Reducing, and Half-Angle Formulas
5.4	Product-to-Sum and Sum-to-Product Formulas (Omit this section, unless timing permits coverage)
5.5	Solving Trigonometric Equations

Chapter 6	Additional Topics in Trigonometry
6.1	Law of Sines
6.2	Law of Cosines
6.3	Polar Coordinates
6.4	Graphs of Polar Coordinates (Omit this section, unless timing permits coverage)
6.5	Complex Numbers in Polar Form: DeMoivre's Theorem
6.6	Vectors
6.7	Dot Products

This list contains 18 sections of material to be covered in the course. The above format allows for four review days, four exam days, and two days to review for the final exam. Typically, Chapter 4 is divided into two exams. Exam 1 covers 4.1-4.4, while Exam 2 covers 4.5-4.8.

A quick review of section 1.6 (Transformations of Function) may be appropriate before covering sections 4.5 and 4.6. In addition, a quick review of section 1.8 (Inverse Functions) may be appropriate before covering section 4.7.