

**Topics for College Algebra
Math 1111
Georgia Highlands College
Updated July 2008**

TOPICS

- Functions
- Graphing Functions
 - Shifting, Reflecting, & Stretching
- Combination of Functions
- Inverse Functions
- Quadratic Functions
- Polynomial Functions
 - Zeros
 - Descartes' Rule of Signs
 - Rational Zero Test
- Rational Functions
- Exponential Functions
- Logarithmic Functions
- Exponential & Logarithmic Models

TEXTBOOK

Precalculus, 3rd edition
Blitzer
Pearson/Prentice Hall

TI-83 or equivalent graphing calculator is required.

SUGGESTED COURSE CONTENT

Chapter 1	Functions and Graphs
*1.1	Graphs and Graphing Utilities
1.2	Basics of Functions and Their Graphs
1.3	More on Functions and Their Graphs
1.4	Linear Functions and Slope
1.5	More on Slope
1.6	Transformations of Functions
1.7	Combinations of Functions; Composite Functions
1.8	Inverse Functions
1.9	Distance and Midpoint Formulas; Circles
1.10	Modeling with Functions (optional)

**Material from 1.1 may be taught as needed in other sections*

Chapter 2	Polynomial and Rational Functions
2.1	Complex Numbers
2.2	Quadratic Functions
2.3	Polynomial Functions and Their Graphs
2.4	Dividing Polynomials; Remainder and Factor Theorems
2.5	Zeros of Polynomial Functions
2.6	Rational Functions and Their Graphs

Chapter 3	Exponential and Logarithmic Functions
3.1	Exponential Functions
3.2	Logarithmic Functions
3.3	Properties of Logarithms
3.4	Exponential and Logarithmic Equations
3.5	Exponential Growth and Decay; Modeling Data

Twenty-one sections are included above. This format should allow for three review days, four exam days, and two days for final exam review, if the optional section is covered.