

**COLUMBUS STATE COMMUNITY COLLEGE**  
**MATHEMATICS DEPARTMENT COURSE SYLLABUS**

**COURSE NUMBER:** Math 148

**COURSE NAME:** College Algebra

**CREDIT HOURS:** 5

**FOLLOW UP COURSE:** Math 150

**PREREQUISITE:** MATH 104, MATH 110, or MATH 111 with at least a “C” grade, or placement by ASSET or COMPASS

**COURSE DESCRIPTION**

This course is a continuation of the study of functions. The concept of transformations is used to graph and analyze functions including quadratic, higher degree polynomial, power, piecewise, rational, exponential, and logarithmic functions. The function concept is applied to solving related equations, inequalities, and applications regarding these types of functions. The concept of functions is extended to include composition of functions and inverse functions. Circles are defined and analyzed. This course meets the general education requirement for the AA degree.

**GOALS OF COURSE**

To present precalculus concepts as part of a two course sequence (MATH 148, MATH 150) needed by students preparing to enter the regular calculus sequence. The course will also satisfy five hours of the liberal arts requirement of the AA degree. Emphasis is on mastering concepts and skills. Theorems and definitions are included, where appropriate, for mathematical accuracy and precision.

**TEXTBOOK AND SPECIAL EQUIPMENT REQUIRED**

- Algebra and Trigonometry, Enhanced with Graphing Utilities, 5<sup>th</sup> Edition, Sullivan/Sullivan, Prentice Hall, 2009.
- Student Study Pack - OPTIONAL (includes the Student Solutions Manual and other resources).
- My Math Lab/Course Compass – OPTIONAL
- Texas Instruments’ TI 83 TI 83PLUS TI 84 or TI 84 PLUS Graphing Calculator