

MATH 86 - Support for College Algebra Course Outline

Approval Date: 12/13/2018

Effective Date: 08/12/2019

SECTION A

Unique ID Number CCC000601129

Discipline(s) Mathematics

Division Mathematics

Subject Area Mathematics

Subject Code MATH

Course Number 86

Course Title Support for College Algebra

TOP Code/SAM Code 1702.00 - Mathematics Skills / E - Non-Occupational

Rationale for adding this course to the curriculum This course will help students who are almost ready to succeed in College Algebra, but for whom the just in time remediation will provide foundation for that success. This course complies with AB705 and chancellor's office directives.

Units 2.5

Cross List N/A

Typical Course Weeks 18

Total Instructional Hours

Contact Hours

Lecture 36.00

Lab 0.00

- G. Use mathematical modeling to solve problems relating to exponential growth, and decay, mixing, and optimization;
- H. Use function notation and evaluate domain and range for all functions types studied and;
- I. Study for a math class effectively.
- J.

3. Course Content

Using a just-in-time approach, the following content will be covered as required for success in the corequisite College Algebra course.

- A. Linear and absolute value equations and inequalities
 - a. Linear functions (finding and graphing)
 - b. Graphing linear inequalities
 - c. Solving absolute value equations
 - d. Absolute value inequalities
- B. Graphing linear equations
 - a. Equations in two variables
 - b. Slope and graphing
 - c. Using slope-intercept and point-slope formulas
 - d. Horizontal and vertical lines
 - e. Parallel and perpendicular lines
- C. Systems of equations
 - a.

- f. Radical functions (simple graphs and domain restrictions)
- g. Complex numbers (brief, but include conjugates)
- G. Quadratics
 - a. Solving by factoring, square root property, completing the square and quadratic formula
 - b. Quadratic functions and graphs
 - c. Finding maximums and/or minimums
- H. Functions
 - a. Function notation
 - b. Analyzing the graphs of functions
 - c. Composition of functions
 - d. Evaluating piecewise defined functions from equation and graph

Example 1: Find all the zeros, maximum or minimum value, and at least two other points of a given quadratic function, then graph.

Example 2: Solve a given system of three equations with three unknowns.

P/NP Only