

**SOUTHEAST COMMUNITY COLLEGE
DIVISION OF ARTS AND SCIENCES**

Mathematics

Revision Date: 07-01-23

[Syllabus Statements](#)

I. CATALOG DESCRIPTION

Course Number: MATH1102
Course Title: Intermediate Algebra Module II
Prerequisite(s): A grade of "B" or higher in MATH1101 OR co-enrollment in MATH1101.
Catalog Description: Study of functions, radical expressions and functions, rational exponents, and solving absolute value equations and inequalities. The prerequisite must be completed before the current course is completed.

Credit Hours: 1.0
Class Hours: 15
Lab Hours: 0
Total Contact Hours: 15

II. COURSE OBJECTIVES: *Course will:*

- A. Introduce functions, function notation, and interpretation of functions and their graphs.
- B. Develop techniques to solve compound and nonlinear inequalities.
- C. Develop techniques to solve absolute value equations and inequalities.
- D. Develop techniques for simplifying radical and rational exponent expressions.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES

- A. Student learning outcomes: *Student will be able to:*
 - 1. Graph elementary functions, find the domain and range of elementary functions, and interpret the graph of a function as related to applications.
 - 2. Simplify radical and rational exponent expressions.
 - 3. Use the Pythagorean Theorem and Distance Formula.
 - 4. Add, subtract, and multiply radical expressions.
 - 5. Graph and solve compound inequalities.
 - 6. Solve absolute value equations and inequalities.
- B. General Education Learning Outcomes:
 - 1. GELO #5: Analytical, Quantitative, and Scientific Reasoning
 - Outcome: Apply mathematical and scientific methods to solve problems from an array of contexts and everyday situations.
 - Outcome: Effectively develop strategies, algorithms, or experiments (or performing experiments) to better describe the systems or to solve the problems.

IV. CONTENT/TOPICAL OUTLINE (*course outline may provide more detailed information*)

- A. Functions and Their Graphs with Applications.
- B. Absolute Value Equations and Inequalities.
- C. Simplifying Radical Expressions and Expressions with Rational Exponents.
- D. Introduction to Radical Functions and Operations with Radical Expressions.

V. INSTRUCTIONAL MATERIALS

- A.** Required Text(s):
 - 1. Direct Digital Access to MyLab Math (through Canvas) will be billed to your student account. ISBN: 9780136825326.
- B.** Other Resources:
 - 1. Paper and writing instrument
 - 2. Scientific calculator (recommended)

VI. METHODS OF PRESENTATION/INSTRUCTION

- A.** Methods of presentation typically include a combination of following:
 - 1. Assigned reading and homework assignments for the student to do in class or outside of class on MyMathLab.
 - 2. Individual tutorial with the student on any subject matter which the student is having difficulty comprehending.
 - 3. Additional tutorial through the Multi Academic Center.
 - 4. Mini-lectures.

VII. METHODS OF EVALUATION

- A.** Methods of evaluation typically include a combination of the following:
 - 1. MyMathLab HW
 - 2. Module exam
- B.** GRADING SCALE
 - A+ 95-100
 - A 90-94
 - B+ 85-89
 - B 80-84
 - F 79 or less

VIII. SPECIFIC COURSE REQUIREMENTS

- A.** To successfully complete this course, the student must complete all assigned work and score 80% or better on the module exam. All work must be completed by the end of the quarter the student is registered.