SOUTHEAST COMMUNITY COLLEGE
DIVISION OF ARTS AND SCIENCES
Mathematics
Revision Date: 07-01-24

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. Demonstrate techniques to solve compound and nonlinear inequalities.
C. Develop techniques to solve absolute value equations and inequalities.
D. Generate 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.