

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

I. CATALOG DESCRIPTION

Course Number: MATH1101
Course Title: Intermediate Algebra Module I
Prerequisite(s): A grade of “C” or higher in MATH0950, or a grade of “B” or higher in MATH0953 or appropriate score on math placement test OR co-enrollment in MATH0953. The prerequisite must be completed before the current course is completed.
Catalog Description: Solving systems of linear equations and inequalities, review of operations with polynomial and rational expressions, review of solving polynomial equations by factoring, study of synthetic division, study of simplifying complex rational expressions, and solving rational equations and applications.
Credit Hours: 1.0
Class Hours: 15
Lab Hours: 0
Total Contact Hours: 15

II. COURSE OBJECTIVES: *Course will:*

- A. Generate techniques for solving systems of linear equations and inequalities.
- B. Review techniques for factoring polynomial expressions and solving polynomial equations.
- C. Recall techniques for simplifying rational expressions.
- D. Devise techniques for simplifying complex rational expressions.
- E. Formulate techniques for solving rational equations.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES

- A. Student learning outcomes: *Student will be able to:*
 - 1. Add, subtract, multiply, divide, and factor polynomial expressions.
 - 2. Solve polynomial equations by factoring.
 - 3. Use problem solving skills to model and solve applications.
 - 4. Add, subtract, multiply, and divide rational expressions, including complex expressions.
 - 5. Solve rational equations by factoring.
 - 6. Solve systems of linear equations using graphing, substitution, and elimination methods.
 - 7. Solve systems of linear 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. Systems of Linear Equations and Inequalities
- B. Polynomial and Rational Expressions Review
- C. Rational Expressions and Equations

V. INSTRUCTIONAL MATERIALS

- A.** Required Text(s):
 - 1. Direct Digital Access to MyLab Math (through Canvas) will be billed to your student account. ISBN: 9780136825043.
- 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.