



MONROE COUNTY
COMMUNITY COLLEGE

Course Outcome Summary

General Education Satisfier Course

Math 151 Intermediate Algebra

Course Information

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|---------------|---------------------|
| Division | Science/Mathematics |
| Contact Hours | 60 |
| Total Credits | 4 |

Prerequisites

RDG 090 and ENGL 090, and Math 092, or Math 105, or qualifying scores on acceptable placement tests.

Course Description

This course covers linear equations, systems of equations, variation, radicals, quadratic functions, complex numbers, conics, exponential and logarithmic equations, basic right triangle trigonometry, and laws of sines and cosines. The purpose of this course is to prepare students for the transition to college algebra.

This course is approved as a General Education competency satisfier.

General Education Goal: Critical Thinking

Competency: Use mathematics to effectively model and evaluate quantitative relationships.

Learning Outcome: Students will apply mathematical concepts and methods to understand, analyze, and communicate in quantitative terms.

General Education Learning Objectives

- Use arithmetic and geometric concepts and representations to solve, estimate, calculate, and check answers to problems to determine the reasonableness of results.
- Utilize linear, exponential, and other nonlinear models to evaluate the nature of relationships in real world problems.
- Organize, analyze, and interpret various representations of data, including functions, graphs, and tables.
- Utilize a variety of problem solving strategies to solve problems and communicate findings using appropriate mathematical language and symbolism.



Course Outcomes

In order to evidence success in this course, the students will be able to:

1. Identify/recognize rational exponents.
Applies to General Education Objectives
 - A. Use arithmetic and geometric concepts and representations to solve, estimate, calculate, and check answers to problems to determine the reasonableness of results.
 - B. Utilize linear, exponential, and other nonlinear models to evaluate the nature of relationships
2. Identify/recognize the quadratic formula.
Applies to General Education Objectives
 - A. Use arithmetic and geometric concepts and representations to solve, estimate, calculate, and check answers to problems to determine the reasonableness of results.
 - B. Utilize linear, exponential, and other nonlinear models to evaluate the nature of relationships in real world problems.
3. Identify/recognize conic sections.
Applies to General Education Objectives
 - A. Use arithmetic and geometric concepts and representations to solve, estimate, calculate, and check answers to problems to determine the reasonableness of results.
4. Identify/recognize exponential and logarithmic functions
Applies to General Education Objectives
 - B. Utilize linear, exponential, and other nonlinear models to evaluate the nature of relationships in real world problems.
 - D. Utilize a variety of problem solving strategies to solve problems and communicate findings using appropriate mathematical language and symbolism.
5. Identify/recognize systems of equations
Applies to General Education Objectives
 - A. Use arithmetic and geometric concepts and representations to solve, estimate, calculate, and check answers to problems to determine the reasonableness of results.
 - D. Utilize a variety of problem solving strategies to solve problems and communicate findings using appropriate mathematical language and symbolism.
6. Identify/recognize trigonometric relationships
Applies to General Education Objectives
 - A. Use arithmetic and geometric concepts and representations to solve, estimate, calculate, and check answers to problems to determine the reasonableness of results.
 - B. Utilize linear, exponential, and other nonlinear models to evaluate the nature of relationships in real world problems.
7. Demonstrate/practice basic operations with real numbers.
Applies to General Education Objectives
 - A. Use arithmetic and geometric concepts and representations to solve, estimate, calculate, and check answers to problems to determine the reasonableness of results
 - C. Organize, analyze, and interpret various representations of data, including functions, graphs, and tables.



8. Demonstrate/practice solving of linear and rational equations
Applies to General Education Objectives
 - A. Use arithmetic and geometric concepts and representations to solve, estimate, calculate, and check answers to problems to determine the reasonableness of results.
 - B. Utilize linear, exponential, and other nonlinear models to evaluate the nature of relationships in real world problems.
 - C. Organize, analyze, and interpret various representations of data, including functions, graphs, and tables.
 - D. Utilize a variety of problem solving strategies to solve problems and communicate findings using appropriate mathematical language and symbolism.

9. Demonstrate/practice solving quadratic equations.
Applies to General Education Objectives
 - A. Use arithmetic and geometric concepts and representations to solve, estimate, calculate, and check answers to problems to determine the reasonableness of results.
 - B. Utilize linear, exponential, and other nonlinear models to evaluate the nature of relationships in real world problems.
 - C. Organize, analyze, and interpret various representations of data, including functions, graphs, and tables.
 - D. Utilize a variety of problem solving strategies to solve problems and communicate findings using appropriate mathematical language and symbolism.

10. Demonstrate/practice evaluation of exponential and logarithmic expressions
Applies to General Education Objectives
 - A. Use arithmetic and geometric concepts and representations to solve, estimate, calculate, and check answers to problems to determine the reasonableness of results.
 - B. Utilize linear, exponential, and other nonlinear models to evaluate the nature of relationships in real world problems.

11. Demonstrate/practice evaluation of expressions with rational exponents and radicals
Applies to General Education Objectives
 - A. Use arithmetic and geometric concepts and representations to solve, estimate, calculate, and check answers to problems to determine the reasonableness of results.
 - B. Utilize linear, exponential, and other nonlinear models to evaluate the nature of relationships in real world problems.

12. Demonstrate/practice computation of roots of real numbers
Applies to General Education Objectives
 - A. Use arithmetic and geometric concepts and representations to solve, estimate, calculate, and check answers to problems to determine the reasonableness of results.

13. Demonstrate/practice computation of angles and sides of right triangles
Applies to General Education Objectives
 - A. Use arithmetic and geometric concepts and representations to solve, estimate, calculate, and check answers to problems to determine the reasonableness of results.
 - D. Utilize a variety of problem solving strategies to solve problems and communicate findings using appropriate mathematical language and symbolism.