



MONROE COUNTY  
COMMUNITY COLLEGE

# Course Outcome Summary

**Standard Course**

**Math 164 Precalculus**

## Course Information

Division	Science Mathematics
Contact Hours	60
Total Credits	4

## Prerequisites

A grade of C or better in MATH 151 or a grade of C or better in MATH 105 with instructor permission and within the last three years is highly recommended, or qualifying scores on accepted placement tests.

## Course Description

This course emphasizes the study of polynomial, exponential, logarithmic and trigonometric functions. Other topics considered are complex numbers, trigonometric identities, systems of equations and analytic geometry. Students will be expected to demonstrate the ability to work with mathematics numerically, graphically, analytically and verbally. The purpose of this course is to provide knowledge and skills in mathematics of advanced algebraic and trigonometric concepts for applications in situations that require the use of quantitative processes. This course serves as a core requirement in many baccalaureate programs and provides prerequisite concepts and skills needed in business, mathematics, engineering and in the physical sciences for continued study in calculus.

## Course Outcomes

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

1. Solve and graph linear equations.
2. Solve and graph quadratic and higher-order polynomial functions.
3. Solve and graph equations involving exponential and logarithmic functions.
4. Solve rational, radical and absolute value equations and inequalities.
5. Solve systems of equations and inequalities.
6. Apply matrix theory to solve systems of equations.
7. Use trigonometric functions to solve applied problems.
8. Solve and graph equations involving trigonometric functions.
9. Utilize and verify trigonometric identities.
10. Perform operations with vectors and use them to solve applied problems.
11. Graph conics and parametric and polar equations.
12. Perform operations with sequences and series.

Updated: January 2023  
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