



MONROE COUNTY
COMMUNITY COLLEGE

Course Outcome Summary

Standard Course

MATH 172 Calculus II

Course Information

Division	Science Mathematics
Contact Hours	60
Total Credits	4

Prerequisites

A grade of C or better in MATH 171 within the last three years is highly recommended.

Course Description

This course is a continuation in the study of calculus with an emphasis on integration. Topics included are algebraic and transcendental functions, techniques of integration, improper integrals, infinite series, plane analytic geometry, parametric equations and polar equations. Students will be expected to demonstrate the ability to work with mathematics numerically, graphically, analytically and verbally. The purpose of the course is to continue the study of calculus of single variable functions with a more in-depth study of integration and various infinite series.

Course Outcomes

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

1. Solve differential equations and use them to solve applied problems.
2. Use integrals to solve applied problems including the area between two curves, volumes of revolution, arc length, surface area and work.
3. Apply proper methods of integration including integration by parts, trigonometric substitution, and partial fractions.
4. Evaluate improper integrals.
5. Test infinite series for convergence and use them to represent functions.
6. Differentiate and integrate using parametric and polar forms.

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