

MATH 206C : Calculus II

Topics include indefinite integration, the definite integral, the Fundamental Theorem of Calculus, integrals of elementary transcendental functions, techniques of integration, polar coordinates, and power series including Taylor series. Applications will be stressed throughout the course including area, volumes of revolution, centroids, and moments of inertia. A graphing calculator is required.

Credits 4

Lab/Practicum/Clinical Hours 0

Lecture Hours 4

Prerequisite Courses

MATH 205C

Learning Outcomes

- State, interpret, and apply the definitions, theorems, and properties involving antiderivatives, definite integrals, and series.
- Determine or evaluate antiderivatives or definite integrals involving algebraic or transcendental functions.
- Determine the convergence or divergence of a series.
- Solve problems involving definite integrals and series using numerical methods.
- Solve problems involving antiderivatives and definite integrals using graphical methods.
- Construct and solve mathematical models using definite integrals.