

# MATH 009C

## First-Year Calculus

### Course Description

Further topics from integral calculus, improper integrals, infinite series, Taylor's series, and Taylor's theorem.

### Prerequisites

MATH 009B with a grade of C- or better or MATH 09HB with a grade of C- or better or MATH 007B with a grade of C- or better.

### Textbook

[\*APEX Calculus \(Version 4.0\)\* by Gregory Hartman](#)

### Suggested Lecture Schedule (50-minute lectures)

Lectures	Textbook Section(s)	Topic(s)
4	8.1	Sequences
3	8.2	Infinite Series
2	8.3	Integral and Comparison Tests
2	8.4	Ratio and Root Tests
2	8.5	Alternating Series and Absolute Convergence
2	8.6	Power Series
2	8.7	Taylor Polynomials
2	8.8	Taylor Series
2	9.2	Parametric Equations
2	9.3	Calculus and Parametric Equations
1	9.4	Introduction to Polar Coordinates
2	9.5	Calculus and Polar Functions

Total number of scheduled 50-minute classes: 26 lectures + 1 midterm exam day = 27 classes

50-minute classes meet three times a week for 10 weeks (minus holidays), so there are at most 30 50-minute class sessions in one quarter. This leaves three 50-minute classes unaccounted for, allowing space in the lecture schedule for holidays (UCR closed, no classes held), review days, catchup days, etc.