Catalog Description:
Techniques of integration, Taylor series, differential calculus of several variables.

Prerequisites:
C- or better in 1151, 152.xx, 1156, 1161.xx, 161.01H, 161.xx, 1114 or 114.

Exclusions:
Not open to students in math, pre-actuarial science, or actuarial science. Not open to students with credit for any higher numbered math class, or for 1152; or for 254.xx or higher numbered math class.

Text:
Calculus for Scientists and Engineers: Early Transcendentals, 2nd OSU custom edition, by Briggs, Cochran, Gillett, published by Pearson, ISBN: 9781256776468

Topic List:

6.2	Regions between Curves
6.3	Volume by Slicing
6.4	Volume by Shells
6.5	Lengths of Curves
6.7	Physical Applications
7.1	Basic Approaches to Integration
7.2	Integration by Parts
7.3	Trigonometric Integrals
	Midterm 1
7.4	Trig Substitution
7.5	Partial Fractions
7.8	Improper Integrals
9.1	Overview of Sequences and Series
9.2	Sequences
9.3	Series (and Idea of Convergence)
9.4	Divergence Test (and Properties of Convergent Series only)
9.5	Ratio Test (only)
10.1	Approx functions with Polynomials
10.2	Properties of Power Series
10.3, 10.4	Taylor Series
	Midterm 2

11.1	Parametric Equations
11.2	Polar Equations
11.3	Calculus in Polar Coordinates
11.4	Conic Sections (Conic Sections in Polar optional)
12.1, 12.2	Vectors in the Plane and 3-Space
12.3, 12.4	Dot Products, Cross Products
12.5	Lines and Curves in Space
12.6	Calculus of Vector-Valued Functions
12.7	Motion in Space
12.8	Lengths of Curves
	Midterm 3
13.1	Planes and Surfaces
13.2	Graphs and Level Curves
13.3	Limits and Continuity
13.4	Partial Derivatives
13.5	The Chain Rule
13.6	Directional Derivatives, Gradient
	Final