Tentative Outline

Chapter 6: Applications of Integration
6.1: Areas Between Curves
6.2: Volumes
6.3: Volumes by Cylindrical Shells
(6.4: Work — optional)
6.5: Average Value of a Function

Chapter 7: Techniques of Integration
7.1: Integration by Parts
7.2: Trigonometric Integrals
7.3: Trigonometric Substitution
7.4: Integration of Rational Functions by Partial Fractions
7.5: Strategy for Integration
(7.6: Integration Using Tables and Technology — optional)
7.7: Approximate Integration
7.8: Improper Integrals

Chapter 8: Further Applications of Integration
8.1: Arc Length
8.2: Area of a Surface of Revolution
(8.3: Applications to Physics and Engineering — optional)

Chapter 11: Infinite Sequences and Series
11.1: Sequences
11.2: Series
11.3: The Integral Test and Estimates of Sums
11.4: The Comparison Tests
11.5: Alternating Series and Absolute Convergence
11.6: The Ratio and Root Tests
11.7: Strategy for Testing Series
11.8: Power Series
11.9: Representations of Functions as Power Series
11.10: Taylor and Maclaurin Series
11.11: Applications of Taylor Polynomials

Chapter 10: Parametric Equations and Polar Coordinates
10.1: Curves Defined by Parametric Equations
10.2: Calculus with Parametric Curves
10.3: Polar Coordinates
10.4: Calculus in Polar Coordinates
10.5: Conic Sections
(10.6: Conic Sections in Polar Coordinates — optional)