



Review Calculus I (1 week)

Limits, Continuity, Derivatives
Riemann Sums and Fundamental Theorem of Calculus
Integrals and u -Substitution

Transcendental Functions (3 weeks)

Derivative of Inverse Function
Logarithmic and Exponential Functions
Separable Differential Equations/ Laws of Growth and Decay
Inverse Trigonometric Functions
Indeterminate Forms and l'Hôpital's Rules

Techniques of Integration (2 weeks)

Integration By Parts
Trigonometric Integrals
Trigonometric Substitution
Partial Fraction Decomposition
Improper Integrals and Their Applications

Infinite Sequences and Series (3 weeks)

Sequences
Series
Positive-Term Series
Ratio and Root Tests
Alternating Series/Absolute Convergence
Tests for convergence
Power series
Maclaurin and Taylor series

Parametric Equations (1 week)

Parametric Equations
Arc Length
Polar Coordinates

