AP CALCULUS AB SCOPE AND SEQUENCE

Semester 1

Unit 1: Limits (September)

(Definition of a limit, One-sided, Infinite Limits, Methods)

Unit 2: Differentiation (September-October)

(Definition, Slope/Rate, Rules, Implicit, Related Rates)

Unit 3: Applications of Derivatives (October-November)

(Intervals of Rate and Concavity, Extrema, Limits at Infinity, Trapezoidal Rule)

Unit 4: Integration (November- December)

(Indefinite, Definite, Fundamental Theorems, Area, U-Substitution)

Unit 5: Transcendental Functions (December)

(Derivative and Integrals of e's and ln's, Properties, Inverse Relationships)

Semester 2

Unit 6: Area/Volume (January-February)

(Integrand Setup, Disc Method, Revolve around x, y, and other axis)

Unit 7: AP Topic- Area/Volume (February)

(Area, Volume, Cross Sections, Changeable Axes)

Unit 8: AP Topic- Differential Equations/Slope Fields (February)

(Separation of Variables, Solving for Constant, Characteristics of Slope Fields)

Unit 9: AP Topic- Related Rates (March)

(Calculate rate, total amount, max and min, using graph/table/equation)

Unit 10: AP Topic- Position/Velocity/Acceleration (March)

(Calculate motion and rate quantities)

Unit 11: AP Topic- Graph Characteristics (March-April)

(Use derivatives and integrals to analyze important graph information)

Unit 12: AP Exam Review (April-May)

(Prepare for the Advanced Placement Exam)