AP Calculus AB Syllabus

Unit No.	Unit Title	Estimated Hours	Exam Weighting (MCQ)	Key Topics Covered
1	Limits and Continuity	10 hours	10-12%	Understanding limits graphically, numerically, and analytically; one-sided limits; limits at infinity; continuity; Intermediate Value Theorem
2	Differentiation: Definition and Basic Derivative Rules	12 hours	10-12%	Derivative at a point, derivative as a function, power rule, product rule, quotient rule, higher-order derivatives
3	Differentiation: Composite, Implicit, and Inverse Functions	12 hours	9-13%	Chain rule, implicit differentiation, derivatives of inverse functions (including inverse trig), related rates
4	Contextual Applications of Derivatives	15 hours	10-15%	Motion problems, rates of change, optimization, linearization, differentials, Mean Value Theorem
5	Analytical Applications of Derivatives	15 hours	15-18%	Graph analysis (increasing/decreasing, concavity), critical points, local and absolute extrema, inflection points
6	Integration and Accumulation of Change	15 hours	17-20%	Definite and indefinite integrals, accumulation functions, properties of integrals, Riemann

sums, FTC Part 1

Differential Equations

8 hours

6-12%

Slope fields, particular solutions, exponential models, logistic models, separation of variables

Applications of Integration

13 hours

10-15%

Area under curve, area between curves, volume (disks, washers, cross-sections), average value of functions