AP CALCULUS BC_MHS

Guide

A (55 Days)			
Resource(s)/ Chapter(s)	**Focus/Topic**	**Standard(s)**	**Duration of Instruction**
	Prerequisite Skills Reviews		4 Days
Calculus Extended with Early Transcendentals: Unit 1	Limits from a Graph, Continuity, and Discontinuity	Course and Exam Description Unit 1: Limits and Continuity	2 Days
Calculus Extended with Early Transcendentals: Unit 1	Limits from Direct Substitution	CED Unit 1: Limits and Continuity	1 Day
Calculus Extended with Early Transcendentals: Unit 1	Limits at Infinity	CED Unit 1: Limits and Continuity	3 Days
Calculus Extended with Early Transcendentals: Unit 1	Intermediate Value Theorem and Worksheet	CED Unit 1: Limits and Continuity	2 Days
Calculus Extended with Early Transcendentals: Unit 1	Squeeze Theorem and Rate of Changes	CED Unit 1: Limits and Continuity	1 Day
Calculus Extended with Early Transcendentals: Unit 2	Using Limits to Define The Instantaneous Rate of Change	CED Unit 2: Differentiation: Definition and Fundamental Properties	1 Day
Calculus Extended with Early Transcendentals: Unit 2	Introduction of Derivatives and Power Rule	CED Unit 2: Differentiation: Definition and Fundamental Properties	2 Days
Calculus Extended with Early Transcendentals: Unit 2	Derivatives of Transcendental Functions, Higher Order Derivatives	CED Unit 2: Differentiation: Definition and Fundamental Properties CED Unit 3: Differentiation: Composite, Implicit, and Inverse Functions	2 Days
Calculus Extended with Early	Product and Quotient Rule	CED Unit 2: Differentiation: Definition and	2 Days

Transcendentals: Unit 2		Fundamental Properties	
Calculus Extended with Early Transcendentals: Unit 2	Connecting Position, Velocity, and Acceleration	CED Unit 4: Contextual Applications of Differentiation	2 Days
	Review and Test		3 Days
Calculus Extended with Early Transcendentals: Unit 3	Chain Rule	CED Unit 3: Differentiation: Composite, Implicit, and Inverse Functions	3 Days
Calculus Extended with Early Transcendentals: Unit 3	Implicit Differentiation	CED Unit 3: Differentiation: Composite, Implicit, and Inverse Functions	2 Days
Calculus Extended with Early Transcendentals: Unit 3 and Relate Rate Activity	Related Rate Problems	CED Unit 4: Contextual Applications of Differentiation	4 Days
Calculus Extended with Early Transcendentals: Unit 3	Differentiating Inverse Functions (Including Trig)	CED Unit 3: Differentiation: Composite, Implicit, and Inverse Functions	2 Days
	Review and Test		3 Days
Calculus Extended with Early Transcendentals: Unit 4	Tangent Line Approximation and Rate of Change Approximation	CED Unit 4: Contextual Applications of Differentiation	1 Day
Calculus Extended with Early Transcendentals: Unit 4	L'Hopital's Rule	CED Unit 4: Contextual Applications of Differentiation	2 Days
Calculus Extended with Early Transcendentals: Unit 4	Absolute Extrema and Mean Value Theorem	CED Unit 5: Analytical Applications of Differentiation	2 Days
Calculus Extended with Early Transcendentals: Unit 4	Inc/Dec Functions, First Derivative Test for Relative Extrema	CED Unit 5: Analytical Applications of Differentiation	2 Days
Calculus Extended with Early Transcendentals: Unit 4	Concavity and POI, Second Derivative Test for Relative Extrema	CED Unit 5: Analytical Applications of Differentiation	2 Days
	Review and Test		3 Days

Calculus Extended with Early Transcendentals: Unit 5	Graphing Derivatives and Antiderivatives from Graphs	CED Unit 5: Analytical Applications of Differentiation	3 Days
Calculus Extended with Early Transcendentals: Unit 5	Using Graphs of The First Derivative with Justification	CED Unit 5: Analytical Applications of Differentiation	1 Day
	Quiz, Quiz Trade Using Graphs of Function		1 Day

*No Extra Days

B (55 Days)			
Resource(s)/ Chapter(s)	**Focus/Topic**	**Standard(s)**	**Duration of Instruction**
Calculus Extended with Early Transcendentals: Unit 6	Antidifferentiation and Indefinite Integrals	CED Unit 6: Integration and Accumulation of Change	3 Days
Calculus Extended with Early Transcendentals: Unit 6	U Substitution	CED Unit 6: Integration and Accumulation of Change	2 Days
Calculus Extended with Early Transcendentals: Unit 6	Definite Integrals, Calculator Integration, The Fundamental Theorem of Calculus	CED Unit 6: Integration and Accumulation of Change	3 Days
Calculus Extended with Early Transcendentals: Unit 6	Fundamental Theorem of Calculus Part 2, Integration with Natural Logarithms Functions	CED Unit 6: Integration and Accumulation of Change	2 Days
Worksheet	Start Plus Accumulation	CED Unit 6: Integration and Accumulation of Change	1 Day
Calculus Extended with Early Transcendentals: Unit 6	Integration Involving Inverse Trig Functions	CED Unit 6: Integration and Accumulation of Change	1 Day
Calculus Extended with Early Transcendentals: Unit 6	Approximation Using Riemann Sums and Trapezoids	CED Unit 6: Integration and Accumulation of Change	2 Days
Calculus Extended with Early Transcendentals: Unit 6	Summation Notation, and Card Sort Activity Integration by Parts	CED Unit 6: Integration and Accumulation of Change	3 Days
Calculus Extended with Early Transcendentals: Unit 6	Partial Fractions and Improper Integrals	CED Unit 6: Integration and Accumulation of Change	3 Days
	Review and Test		3 Days
Calculus Extended with Early Transcendentals: Unit 7	Solving Differential Equations Verifying Solutions Exponential Growth and Decay	CED Unit 7: Differential Equations	2 Days
Calculus Extended with Early Transcendentals: Unit 7	Slope Fields Euler's Method	CED Unit 7: Differential Equations	3 Days

Calculus Extended with Early Transcendentals: Unit 7	Logistic Equations	CED Unit 7: Differential Equations	1 Day
Calculus Extended with Early Transcendentals: Unit 8	Average Value of a Function Arc Length Accumulations of Functions	CED Unit 8: Applications of Integration	2 Days
Calculus Extended with Early Transcendentals: Unit 8	Area Between Curves	CED Unit 8: Applications of Integration	2 Days
Calculus Extended with Early Transcendentals: Unit 8	Volume of Solids	CED Unit 8: Applications of Integration	3 Days
	Review and Units 7 and 8 Test		3 Days
	Review Factorials and Sequences		1 Day
Calculus Extended with Early Transcendentals: Unit 9	Geometric Series and Nth Term Test	CED Unit 10: Infinite Sequences and Series	2 Days
Calculus Extended with Early Transcendentals: Unit 9	Power Series Geometric Power Integrating of Differentiations of Series	CED Unit 10: Infinite Sequences and Series	3 Days
Calculus Extended with Early Transcendentals: Unit 9	Taylor Series	CED Unit 10: Infinite Sequences and Series	2 Days
Calculus Extended with Early Transcendentals: Unit 9	Elementary Series and Alternating Series	CED Unit 10: Infinite Sequences and Series	2 Days
Calculus Extended with Early Transcendentals: Unit 9	Error Approximations	CED Unit 10: Infinite Sequences and Series	2 Days
Calculus Extended with Early Transcendentals: Unit 9	Integral Test and P-Series Test	CED Unit 10: Infinite Sequences and Series	2 Days
Calculus Extended with Early Transcendentals: Unit 9	Direct Comparison Test and Limit Comparison Test	CED Unit 10: Infinite Sequences and Series	2 Days

*No Extra Days

C (63 Days)			
Resource(s)/ Chapter(s)	**Focus/Topic**	**Standard(s)**	**Duration of Instruction**
Calculus Extended with Early Transcendentals: Unit 9	Ratio Test	CED Unit 10: Infinite Sequences and Series	2 Days
Calculus Extended with Early Transcendentals: Unit 9	Interval of Convergence	CED Unit 10: Infinite Sequences and Series	4 Days
	Review and Unit 9 Test		3 Days
Calculus Extended with Early Transcendentals: Unit 10	Review Vectors and Parametrics	CED Unit 9: Parametric Equations, Polar Coordinates, and Vector-Valued Functions	1 Day
Calculus Extended with Early Transcendentals: Unit 10	Polar Graphs	CED Unit 9: Parametric Equations, Polar Coordinates, and Vector-Valued Functions	2 Days
Calculus Extended with Early Transcendentals: Unit 10	Polar Area Polar Circuit Worksheet	CED Unit 9: Parametric Equations, Polar Coordinates, and Vector-Valued Functions	4 Days
Calculus Extended with Early Transcendentals: Unit 10	Calculus of Vector-Valued Functions	CED Unit 9: Parametric Equations, Polar Coordinates, and Vector-Valued Functions	2 Days
AP Test Review	Surprise Quiz and Applications Assignment		5 Days
AP Test Review	Multiple Choice AP Test and Review		5 Days
AP Test Review	FRQ Questions Pick Four Themes		11 Days
AP Test Review	Multiple Choice AP Test and Review		5 Days
AP Test Review	FRQ Questions Pick Four Themes		11 Days
AP Test Review	Do Last Year's FRQ Questions as a practice FRQ		4 Days
	AP Calculus BC Test		1 Day
	Review Six Released Free Response Questions from		2 Days

	the AP Test		

*1 Extra Day