

Cocalico School District
Year-at-a-Glance - Curriculum Overview

Department: Math

Course: AP Calculus AB (144)

Grade Level: 10 - 12

Big Ideas

- To find the limit of a function numerically, algebraically and numerically
- To use algebraic techniques to find the derivative of a function
- To use the derivative of a function to determine key points of the graph of a function
- To use algebraic techniques to find the antiderivative of a function

Units of Study	% of Course Time	Textbooks & Supplemental Materials	Assessments	Standards Addressed
<ul style="list-style-type: none"> • Limits and Their Properties 	15%	<ul style="list-style-type: none"> • <i>Calculus of a Single Variable</i> Textbook • Past AP Exam Free Response Questions 	<ul style="list-style-type: none"> • Unit Exam • Homework • Teacher Observation 	<ul style="list-style-type: none"> • Extension Beyond Standards
<ul style="list-style-type: none"> • Differentiation Techniques and Applications 	25%	<ul style="list-style-type: none"> • <i>Calculus of a Single Variable</i> Textbook • Past AP Exam Free Response Questions 	<ul style="list-style-type: none"> • Unit Exam • Homework • Teacher Observation 	<ul style="list-style-type: none"> • Extension Beyond Standards
<ul style="list-style-type: none"> • Applications of the Derivative of a Function 	25%	<ul style="list-style-type: none"> • <i>Calculus of a Single Variable</i> Textbook • Past AP Exam Free Response Questions 	<ul style="list-style-type: none"> • Unit Exam • Homework • Teacher Observation 	<ul style="list-style-type: none"> • Extension Beyond Standards
<ul style="list-style-type: none"> • Differential Equations 	10%	<ul style="list-style-type: none"> • <i>Calculus of a Single Variable</i> Textbook • Past AP Exam Free Response Questions 	<ul style="list-style-type: none"> • Unit Exam • Homework • Teacher Observation 	<ul style="list-style-type: none"> • Extension Beyond Standards
<ul style="list-style-type: none"> • Integration and Its Applications 	25%	<ul style="list-style-type: none"> • <i>Calculus of a Single Variable</i> Textbook • Past AP Exam Free Response Questions 	<ul style="list-style-type: none"> • Unit Exam • Homework • Teacher Observation 	<ul style="list-style-type: none"> • Extension Beyond Standards

Extension Beyond Standards means that the course goes beyond the given state standards.



Eagle P.A.C.T. Course Connections:

In Advanced Placement Calculus AB, students will use problem solving skills to study topics that include the theory and application of limits, derivatives, and integrals, including algebraic, trigonometric, and transcendental functions. All topics required for the AB Advanced Placement Calculus test are included. Students will have opportunities to work together to collaborate and communicate their thinking about calculus.