Norwood Public Schools
Curriculum Overview
AP Calculus AB   243

Description:

AP Calculus is a full-year class in the calculus of functions of a single variable. Students will study functions, limits, differentiation, and integration. This course is designed for students who have passed Honors Pre-Calculus/Trigonometry. They should have a thorough knowledge of algebra, Euclidean geometry, trigonometry, and analytic geometry (rectangular and polar coordinates, equations and graphs, lines, conics). Before studying calculus, all students should complete four years of secondary mathematics designed for college-bound students. Knowledge of linear, polynomial, rational, exponential, logarithmic, trigonometric, inverse trigonometric, and piecewise-defined functions is a must. In particular, before studying calculus, students must be familiar with the properties of functions, the algebra of functions, and the graphs of functions. Students must also understand the language of functions (domain and range, odd and even, periodic, symmetry, zeros, intercepts, etc) and know the values of the six trigonometric functions of angles, both in degrees and radians. This course will integrate AP Calculus problems to help students prepare for the AP exam.

Learning Experiences:

Students will experience learning through many formats in addition to routine classroom experiences. The variety of technology utilized includes the use of the ENO Board in conjunction with software programs such as Easiteach and Workspace, along with technological devices such as MOBI, graphing calculators, and e-Clickers. AP Calculus students are also exposed to resources in the computer lab and the library to complement the primary AP Calculus content. Students complete projects and other various activities.

Textbook Chapters:
Differential Calculus
Chapter 1: Prerequisites for Calculus
Chapter 2: Limits and Continuity
Chapter 3: Derivatives
Chapter 4: Application of Derivatives
Integral Calculus
Chapter 5: The Definite Integral
Chapter 6: Differential Equations and Mathematical Modeling
Chapter 7: Applications of Definite Integrals

Resources Used:
Resources include the textbook:
 CALCULUS: Grpahical, Numerical, Algebraic (Finney, Demana, Waits, Kennedy) 2003
        ISBN: 0-13-063131-0