

213 AP CALCULUS AB

COURSE DESCRIPTION

This intensive, fast-paced course includes the study of elementary functions, limits and continuity, and differentiation and integration of polynomial, trigonometric, and transcendental functions. It prepares students to take the AP[®] Calculus AB Exam and is comparable to a one semester course in college Calculus (Calculus 1). Students that were not previously enrolled in Honors Precalculus must see the teacher about completing the necessary prerequisite skills not covered in Precalculus.

ACADEMIC PLANNING

This course satisfies one of the four mathematics credits required for graduation.

PREREQUISITE: PRECALCULUS; **PRECALCULUS HONORS RECOMMENDED**

FREQUENCY: SEMESTER/DAILY

STANDARDS:

- 2.1 Numbers and Operations F Algebra All
- 2.2 Algebraic Concepts C & D Algebra All

UNITS:

- Chapter 1: Prerequisites for Calculus
- Chapter 2: Limits and Continuity
- Chapter 3: Derivatives
- Chapter 4: More Derivatives
- Chapter 5: Applications of Derivatives
- Chapter 6: The Definite Integral
- Chapter 7: Differential Equations and Mathematical Modeling
- Chapter 8: Applications of Definite Integrals

OBJECTIVES

- Cover all material on the AP exam before the exam date
- To get an in depth college level of understanding of AP Calculus AB topics
- To become proficient with the TI-89 graphing calculator

KEY RESOURCES

Calculus: Graphical, Numerical, Algebraic AP Edition (5th Edition)

TI-89 Calculator (provided) or buy TI-NSpire (CAS version)

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ASSESSMENTS & GRADING

15% - Homework

15% - Problems of the Week (3 per quarter)

20% - Quizzes

40% - Tests

10% - Midterm and Final Exams

ATTENDANCE POLICY

Twin Valley School District's attendance policy can be found in the [TVHS Student Handbook](#).

ELECTRONIC DEVICE POLICY

Twin Valley School District's Electronic Device Policy can be found in [School Board Policy 237](#). Additional information can be found in the [TVHS Student Handbook](#).

ACCOMMODATIONS STATEMENT

The Twin Valley School District has a longstanding commitment to the inclusion of students requiring specially-designed instruction within the general education environment to the extent appropriate for the individual child. Twin Valley School District implements a co-teaching model at levels in which general and special education teachers plan and provide instruction within a general education class so that instruction is differentiated to meet the educational needs of all students. These co-taught classes increase learning opportunities and success within the least restrictive environment.

ACADEMIC POLICIES & PROCEDURES

Twin Valley School District values academic integrity. The following information regarding cheating/plagiarism can be found in the [TVHS Student Handbook](#): "Students involved in cheating, plagiarism, and/or unauthorized copying of schoolwork or other educational material will receive no credit for the particular test or assignment, or other actions at the discretion of the teacher. More severe or involved offenses may result in disciplinary actions by the school administration." Additional High School Academic information can be found on their [Program of Studies Website](#).