

Course Description

Grade 12 AP Calculus AB (Calculus I/DMACC MAT 211)

Philosophy Statement: God is a God of order, and through the study of mathematics, students will appreciate the orderliness, exactness, and completeness that God has infused throughout his creation. Through the study of mathematics, students can develop a better appreciation of the infinite wisdom of God when compared to the finiteness of man.

Course Objective: This is a rigorous college level course covering all topics required for the AB Advanced Placement calculus exam plus all required DMACC competencies for Calculus I. The areas of study include graph analysis, limits of functions, continuity of functions, derivatives at a point and as a function, integration and techniques of anti-differentiation. In addition to meeting the high school credit requirement students may receive college credit upon successful completion of the AP EXAM. Students also have the option of taking this course as a dual credit course (high school and DMACC credit at a reasonable cost).

Textbooks: Calculus with Analytic Geometry
Harcourt Brace Jovanovich
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Materials:

- Graphing Calculator

Time Allotment: 44 minutes per day, 5 days per week

Course Content:

- Functions
- Limits and Continuity
- Derivatives and their Application
- The Integral and Application
- Inverse Functions
- Basic Differential Equations

Areas to be evaluated:

- Homework
- Unit Tests
- Semester Tests

Additional activities: None