Course Syllabus: Precalculus

Course Description

Precalculus is a fourth-year mathematics course option for students who have completed Advanced Algebra (or the equivalent). The course is intended to provide students with opportunities to develop a deeper understanding of Algebraic concepts that are critical to the study of Calculus. Students will also deepen their understanding of trigonometry and its applications.

Throughout the Precalculus course there should be a focus on notational fluency and the use of multiple representations. The course includes the study and analysis of piecewise and rational functions; limits and continuity as related to piecewise and rational functions; sequences and series with the incorporation of convergence and divergence; conic sections as implicitly defined curves; the six trigonometric functions and their inverses; applications of trigonometry such as modeling periodic phenomena, modeling with vectors and parametric equations, solving oblique triangles in contextual situations, graphing in the Polar Plane; solutions of trigonometric equations in a variety of contexts; and the manipulation and application of trigonometric identities. Topics should be analyzed in multiple ways, including verbal and written, numerical, algebraic, and graphical presentations.

This course has three sections: Precalculus A is the first half of the course and includes Units 1 – 3. Precalculus B is the second half of the course and includes Units 4 – 6. Pre-Calculus Y is the entire course and includes Units 1 – 6.

This course includes the following Units:

Unit 1 – Modeling with Rational and Piecewise-Defined Functions
Unit 2 – Modeling with Trigonometric Expressions and Functions
Unit 3 – Applying Trigonometric Identities and Equations
Unit 4 – Modeling with Conic Sections and Polar Equations
Unit 5 – Modeling with Vector Quantities
Unit 6 – Modeling with Sequences and Series

CVA Work Policy

- All coursework must be completed and submitted using the links in CTLS by 11:59 PM on the DUE DATE.
- Work should be completed in the order it is assigned on the Class Schedule.
- All work submitted on time will be graded within 24-48 hours.
- Assignments not submitted by the due date will be marked missing. Missing assignments are calculated as zeros in the coursework average. When students submit missing work, the assignment will be graded and calculated into the course average.

The CVA term ends prior to the end of the traditional school semester. The final date work will be accepted each term is posted on the CVA website (cobbvirtualacademy.org).

Grading

Grades for the course are calculated based on category percentages as follows:

Precalculus Y	
Assignment	30%
Quiz	25%
Test	35%
Final Exam	10%

Academic Integrity

Academic integrity is the cornerstone of learning at CVA and we take the integrity and authenticity of student work very seriously. When academic integrity is maintained, students will make decisions based on values that will prepare them to be productive, meaningful, and ethical citizens.

Students are required to abide by the CVA Academic Integrity Policy. Academic dishonesty in any form will not be tolerated. The CVA Academic Integrity Policy outlines the consequences if students fail to maintain academic integrity in their course. For additional information, the CVA Academic Integrity Policy is posted on the CVA website.

Additional General Information

- Students must complete the mandatory online CVA Student Orientation each term before any course work will be graded by the instructor.
- All course work must be submitted through CTLS in the format requested. Students should have access to Microsoft Office and submit assignments in that format. All CCSD students have access to the Office 365 Suite. Assignments submitted through email will not be accepted.
- The 'Grade before Final Exam' column in the student Grade Center shows the current grade for the course and is automatically calculated.
- Students in all sections of this course will take an online final exam during times indicated on the CVA website.

Course Specific Information

- **Practice Assignments**: After reviewing each lesson, students will complete a practice assignment ONLINE. Each assignment has approximately 10 questions.
- **Quizzes and Tests:** Students should carefully review the feedback on graded items and be sure to understand the material prior to beginning the quiz or test.

Cobb Virtual Academy