Common Core Pre-Calculus
Syllabus

Course Number: MA1104

Grade level: 9–12

Prerequisite Courses: Common Core Algebra II

Credits: 1.0

Course Description

With an emphasis on function families and their representations, Pre-Calculus is a thoughtful introduction to advanced studies leading to calculus. The course briefly reviews linear equations, inequalities, and systems and moves purposefully into the study of functions. Students then discover the nature of graphs and deepen their understanding of polynomial, rational, exponential, and logarithmic functions. Scaffolding rigorous content with clear instruction, the course leads students through an advanced study of trigonometric functions, matrices, and vectors. The course concludes with a short study of probability and statistics.

Course Objectives

Throughout the course, you will meet the following goals:

- Analyze and interpret the structure of polynomial, rational, and exponential functions
- Communicate effectively using graphic, numeric, symbolic, and verbal representations
- Explore mathematical reasoning used in trigonometric functions
- Demonstrate and understanding of matrices and solve systems using matrix equations
- Explore and calculate theoretical probabilities and develop a probability distribution for a random variable
- Classify conic equations and construct graphs of conic sections

Student Expectations

This course requires the same level of commitment from you as a traditional classroom course would. Throughout the course, you are expected to spend approximately 5–7 hours per week online on the following activities:

- Interactive lessons that include a mixture of instructional videos and tasks
- Assignments in which you apply and extend learning in each lesson
- Assessments, including quizzes, tests, and cumulative exams

Communication

Your teacher will communicate with you regularly through discussions, email, chat, and system announcements. You will also communicate with classmates, either via online tools or face to face, as you collaborate on projects, ask and answer questions in your peer group, and develop your speaking and listening skills.

Grading Policy

You will be graded on the work you do online and the work you submit electronically to your teacher. The weighting for each category of graded activity is listed below.

Grading Category	Weight
Lesson Quizzes	30%
Unit Tests	30%
Cumulative Exams	20%
Assignments	20%

Scope and Sequence

When you log into Edgenuity, you can view the entire course map—an interactive scope and sequence of all topics you will study. The units of study are summarized below:

Unit 1: Equations and Inequalities

Unit 2: Functions

Unit 3: Conics

Unit 4: Trigonometric Functions

Unit 5: Trigonometry of General Triangles

Unit 6: Matrices

Unit 7: Vectors

Unit 8: Probability

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