

COURSE TITLE: Pre-Calculus
COURSE LENGTH: 1 year
COURSE CREDIT: 1 credit

COURSE TYPE: elective
GRADE LEVEL: 11, 12
PREREQUISITE: Algebra II, teacher approval

COURSE GOALS:

1. Students will identify, categorize, and describe functions by ways of graphing and simple transformations.
2. Students will analyze and graph polynomial and rational functions.
3. Students will construct and recognize the basic characteristics of exponential and logarithmic function.
4. Students will evaluate and graph the trigonometric functions, their inverses, and their reciprocals.
5. Students will construct strategies for simplifying expressions and solving equations by using trigonometric identities.
6. Students will apply trigonometry to oblique triangles, vectors, and complex numbers.
7. Students will evaluate systems of equation and interpret matrices.

COURSE CONTENT:

1. Functions and their graphs
2. Polynomial and rational functions
3. Exponential and logarithmic functions
4. Trigonometric functions
5. Analytic trigonometry
6. Additional topics in trigonometry
7. Linear systems and matrices