PRECALCULUS 40

Insert Teacher Name   Insert Room Number

Insert Full Year/Semester   Insert Period

Insert Email Address

COURSE DESCRIPTION

Pre-calculus combines the trigonometric, geometric, and algebraic techniques needed to prepare students for the study of calculus, and strengthens students' conceptual understanding of problems and mathematical reasoning in solving problems. Facility with these topics is especially important for students intending to study calculus, physics, and other sciences, and/or engineering in college. Because the standards for this course are (+) standards, students selecting this Pre-Calculus course should have met the college and career ready standards. The Standards for Mathematical Practice complement the content standards so that students increasingly engage with the subject matter as they grow in mathematical maturity and expertise throughout the elementary, middle, and high school years. For this high school Pre-Calculus course, instructional time should focus on four critical areas: (1) extend work with complex numbers; (2) expand understanding of logarithmic, exponential, and trigonometric functions; (3) use characteristics of polynomial and rational functions to sketch graphs of those functions; and (4) perform operations with vectors and matrices.

COURSE OBJECTIVES

Students should:
- Use complex numbers in polynomial identities and equations.
- Use polynomial identities to solve problems
- Rewrite rational expressions
- Analyze functions using different representations
- Build a function that models a relationship between two quantities
- Build new functions from existing functions
- Extend the domain of trigonometric functions using the unit circle
- Model periodic phenomena with trigonometric functions
- Prove and apply trigonometric identities
- Use and apply parametric equations
- Apply trigonometry to general triangles
- Represent and model with vector quantities.
- Perform operations on vectors.
- Perform arithmetic operations with complex numbers.
- Represent complex numbers and their operations on the complex plane.

UNITS OF STUDY

- Rational and Exponential Functions
- Trigonometry
- Vectors
- Complex Numbers and Polar Representations

COURSE POLICIES AND REQUIREMENTS

GRADING

Summative Assessments:	Insert % Here (Minimum of 70%). Insert Categories/Weighting (ie. Papers – 30%)
Formative Assessments:	Insert % Here (Maximum of 30%). Insert Categories/Weighting (ie. Quizzes – 50%)
Behavioral Characteristics:	Insert % Here (Maximum of 10%) Insert Categories/Weighting (ie. Particip. - 90%)

Insert Additional Grading Information Here

MATERIALS

Insert Course Materials Here (ie. Textbook, Binder, Calculator, Highlighters)

EXPECTATIONS OF STUDENTS

Insert Course Expectations Here

EXTRA HELP

Insert Course Expectations Here

Insert Additional Information Here