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| **Precalculus Honors** | | | | |
|  | | **Description of Average Weekly Outside Requirements** | |
| **Main Topics**  **(What main ideas/concepts are covered):**   * Functions and their Graphs * Polynomial and Rational Functions * Exponential and Ratioanal Functions * Trigonometric Functions * Vectors * Conic Sections * Sequences and Series * Introduction to Limits | **Rationale**  **(Why a student should take this course):** A student should take this course to further their understanding of advanced mathematical concepts that will lead to taking a course in Calculus, whether is be an AP Calculus course or a Calculus course in a community college/university setting. | **Reading**  **(Text, document, etc.):**   * Reviewing daily notes from class * Occasional reading from textbook | **Written**  **(Terms, questions, outlines, free response, etc.):**   * Daily assignments are given to reinforce the topics that have been presented in class * Students are expected to study independently in preparation for quizzes and tests. |
| **Grade Composition**  **(How grades are determined):**   * Daily assignments * Classwork * Quizzes * Tests | **Skill Development**  **(Skills developed in this course and how):**  The skills that are developed in the course are upper level Algebra skills with an emphasis on higher order functions and Trigonometric skills which will be beneficial for studying a course in Calculus. These skills will be developed throughout the Precalculus course. | **Sample Textbook Excerpt:**   1. Use the Law of Cosines to Solve a Triangle (SAS): a = 13, c = 6, and θ = . 2. Graph: 3. The equation used to convert from degrees Celsius to degrees Fahrenheit is Determine the inverse function What does the inverse function represent? 4. Simplify: 5. Graph the hyperbola 6. Graph the curve defined by the parametric equations   . | |
| **Required Skills**  **(Skills necessary to be successful in this course)**   * Analytical Thinking * Strong work ethic * Foundational skills in Algebra and Geometry |