

Troy High School Course Profile

Course Title: Pre-Calculus Honors

Course Prerequisites: Refer To Registration Presentation

Course Description:

Pre-Calculus Honors is designed to prepare a student for college-level calculus. Topics include polynomial and rational functions and their graphs, exponential and logarithmic functions and their graphs, trigonometric functions and their graphs, the fundamental identities, proving identities, solving trig equations inverse trigonometric functions and equations, polar equations and their graphs, triangle trigonometry, vectors, systems of equations and inequalities, matrices, sequences and series. Topics are presented with an emphasis on mathematical rigor and real-life applications.

Students entering this course should already have a mastery of the following concepts and possess the following skills:

- Excellent critical thinking and reasoning skills
- Excellent problem solving skills
- Ability to understand concepts quickly
- Ability to think conceptually
- Be able to connect concepts to applications
- Be able to connect concepts from previous learning to current concepts
- Excellent in factoring
- Simplifying complex fractions
- Be able to solve all first and second degree equations
- Have a solid grasp of function notation (camp)
- Know how to rationalize the denominator

Workload Expectations for this course (list typical amount of homework, projects, presentations, papers, etc.):

- There is daily homework which will take from 45 minutes to 90 minutes.
- All answers to problems must be supported and justified with work thoroughly shown.
- Students are expected to review and study notes on a daily basis.
- There are unit tests, quizzes, and a final each semester.