

OHHS Mathematics Department

Course Syllabus



Course Name: Honors Precalculus A
Course Code: MAO2HE

Course Description:

Honors Precalculus is designed to develop both the concepts and the procedural skills in advanced algebra that will prepare you for the study of Calculus. You need to already have a proficiency in a range of math skills, including linear and quadratic functions, which will be built upon during the course. There will be problem solving, analysis, and communication required in addition to algebraic, graphical, and numerical approaches to the patterns we study. When you finish, you will have proficiency with functions in general, including operations, compositions, and graphs. You also will have mastery of the specific features and applications of linear, quadratic, exponential, logarithmic, polynomial, rational, and trigonometric functions. You will also have an introduction to vectors and polar coordinates

Prerequisites

Successful completion of Algebra 2 with a B or higher AND instructor recommendation.

Course Resources

Precalculus with Limits 4e: (Cengage Learning 2018)

- o Calculator Texas Instrument Graphing calculators will be used regularly in class. OHHS has classroom sets of TI 84 Plus calculators for student use in class.

If students would like one for home use the Math department strongly encourages students have their own and available to them throughout their math career at OHHS.

- o Internet Resources

- o Additional supplemental resources

Course Fees

None

Course Outline/Instructional Units

- 1.1 Rectangular Coordinates
- 1.2 Graphs of Equations
- 1.3 Linear Equations in 2 Variables
- 1.4 Functions
- 1.5 Analyzing Graphs of Functions
- 1.6 Library of Parent Functions
- 1.7 Transformations of Functions
- 1.8 Combinations of Functions
- 1.9 Inverse Functions
- 1.10 Mathematical Modeling and Variation
- 2.1 Quadratic Functions and Models
- 2.2 Polynomial Functions of Higher Degree
- 2.3 Polynomial and Synthetic Division
- 2.4 Complex Numbers
- 2.5 Zeros of Polynomial Functions
- 2.6 Rational Functions
- 2.7 Nonlinear Inequalities
- 3.1 Exponential Functions and Their Graphs
- 3.2 Logarithmic Functions and Their Graphs
- 3.3 Properties of Logarithms
- 3.4 Exponential and Logarithmic Equations
- 3.5 Exponential and Logarithmic Models

Major Assessments

Major Assessments will include some mid-chapter quizzes and end of unit exams for each unit of study. Additionally, students will be given End of Trimester exams over topics from the entire trimester.

Extra Help

Teachers will provide information regarding tutoring in classroom procedures. Students are encouraged to take advantage of tutoring opportunities and assistance will be offered in class.

RE-DO POLICY:

OHHS is an effort based school where we believe all students can learn. We also know that students learn at different rates. Thus, we are implementing a re-do policy that recognizes the needs of individual learners.

- 100% Re-do

- o Assessments (with exception of the Final Trimester exam)
 - o Homework/classwork is seen as work advancing a student towards mastery and is used as a *formative* assessment and is graded *primarily* for completion and growth. Individual plans may be made for students regarding with length of assignments. Assignments may be turned in for full credit during the current unit of study.
- Assessments: Teachers will
 - o Allow students to complete brief supportive assignments/practice (or study guide) to assist them in attaining mastery in either the complete assessment or areas of an assessment on which they were deficient to be completed either after school, outside of school or in the classroom depending upon availability time of the student and teacher
 - o Once the student has been given the opportunity to work on skills needed for mastery; students will be given the opportunity to retake parts or the entirety of the assessment for full credit with a general two week timeline to complete once the original assessment is scored. Dates of availability to obtain this opportunity will be provided by the teacher (flexibility will be provided to meet student and teacher schedules). Students who miss these opportunities waive their rights to redo the exam.
 - o Once the deadline has passed students will be given the higher of the two grades on the Assessment or Redo for up to 100% (this could include a 0% on the assessment). Extenuating circumstances such as illness can allow the teacher to extend the deadline.

Weighted Categories

Category	Percentage of Overall Grade
Classwork/Homework	10%
Assessments	70%
Trimester Final	20%

Grading Scale:

Regular Scale	
Letter Grade	Percentage
A	93% and Above
A -	90%-92.99%
B+	87%-89.99%
B	83%-86.99%
B-	80-82.99%
C+	77%-79.99%
C	73-76.99%
C-	70-72.99%
D+	67%-69.99%
D	60%-66.99%
F	59.99% and Below

OHHS PLAGIARISM POLICY:

Any student, who knowingly turns in any work that has been done by someone other than himself or herself, and fraudulently represents it as his/her own, shall be considered to have cheated. Cheating also includes: aiding someone else in cheating, the use or preparation of written, pictorial, electronic or other materials not authorized by the instructor during a test or assignment, the use of testing materials obtained previous to the test date, or plagiarism of any kind. Students found cheating will also be subject to an office referral, which could result in a suspension. As an effort based school, students who have plagiarized/cheated must still demonstrate their learning. Thus, students will be given the opportunity to complete the work. This will fall under the “Late Work Policy” of the teacher where total possible points may be reduced.