

Mrs. Sevilla

School Year \_\_\_\_\_



Honors Pre-Calculus Syllabus

# OHS Mission Statement and ESLRs

Okkodo High School provides a respectful environment for quality learning that builds knowledge and skills to succeed in the 21<sup>st</sup> century.

E<sup>4</sup> = Excellence by Choice



Effectively communicate with others



Excellence in academics,



Embrace cultural diversity



Environmentally respectful

## MA 405H Course Description

After completing this course students will be able to demonstrate the understanding of linear and quadratic equations verbally, numerically, and analytically. Students will have a foundation in algebra that will help them to become successful in dealing with the advance mathematical topics of limits, derivatives, and integrals which comprise the materials for AP Calculus.

Length: Two semesters

Prerequisite: MA203 with a grade of B or better

## Course Objectives and Outline

First Semester: Elementary Functions

Second Semester: Trigonometry

Students will be able to Analyze and interpret the behavior and nature of functions including polynomial, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions. Specifically:

1. Find the domain and range of a function.
2. Find the maximum or minimum value of a quadratic function.
3. Find the inverse of a function.
4. Graph a polynomial function.
5. Find all zeros of a polynomial function.
6. Use the change of base formula to evaluate a logarithm.
7. Solve exponential and logarithmic

Students will be able to study the measures of angles, properties of graphs of trigonometric functions, fundamental identities, addition and half-angle formulas, inverse trigonometric functions, solutions of trigonometric equations, complex numbers and properties of triangle solution. Specifically:

1. Find trigonometric functions of  $\pi/4$ ,  $\pi/3$ , and  $\pi/6$ .
2. Demonstrate an understanding of the trigonometric ratios of a right triangle.
3. Use the laws of sines and cosines to solve a triangle.
4. Solve a trigonometric equation.
5. Multiply and divide complex numbers in trigonometric form.

## Required Text

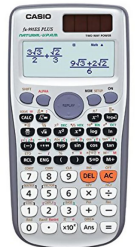


We will be using Precalculus Curriculum from All Things Algebra and the Blitzer Precalculus book, 4<sup>th</sup> edition as a resource, however, everything is online in our class website. Please be prepared to go online to do homework. If this is a problem, then please provide a flash drive to transfer the files.

## Materials

The student is required to supply the following items:

- Binder with loose-leaf paper
- Scientific/Graphing Calculator,
- Dividers
- Kleenex tissue
- Pencil
- Graph Paper
- highlighter

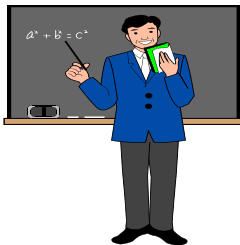


This syllabus has been approved by the principal of Okkodo High School. \_\_\_\_\_

# Teaching Strategy

Class periods will be conducted in the following manner:

- Attendance at the beginning of the class
- cover new material in lecture type
- Exploratory chalkboard examples
- Discussion
- Assignment
- Quizzes
- Reviews
- Test/Exam



Attendance is very important in the learning process. Punctuality is equally important. In order for the class to operate smoothly, each student should adhere to the attendance/ tardy policy. However, should you be **absent**, it is your responsibility to do any missed work. You have until the next class meeting to complete any make-ups, unless an agreement between the student and teacher is decided. Failure to do so will result in an F for that particular quiz or test. Make up quizzes and tests will be done during first half of lunch upon students return.

Mathematics is a very abstract course. In order to reach your full potential in class, it is vital to take notes on new material and chalkboard examples. Problems that will be assigned will be similar to the examples. Therefore, it is mandatory to take notes. Notes are provided online. Please print before lessons are taught. This will be part of a portfolio requirement.

After a lesson has been taught, practice problems will be given. On the next class meeting, we will go over any questions on problems assigned. However, class assignments will not be collected and graded. It is your responsibility to complete it as problems in quizzes and tests may be taken out of the assignments. Completion of class assignments will be checked in your portfolio.

Quizzes are assigned after every section or two. Please prepare yourself for the class with that in mind. Retakes- you can only retake a quiz **once**, on the day it is given, usually during lunch, if you are not happy with your grade. However, you must show that you did the hw before you retake a quiz. If you opt not to retake the quiz, grade stands as is.

A test will be given after every chapter or mid- chapter. There will be no retakes for tests (unless you are absent.) Quarter exams will be equivalent to two test grades.

Agendas are posted on the chalkboard and it is your responsibility to copy it down in a calendar format and keep it up to date. At the end of each week calendars are to be signed by a parent or guardian, which serves as a weekly parent contact. Grades on quizzes and tests should be reflected on the calendar. Calendars will be part of the portfolio grade.

Portfolios will be checked every quarter. They will be evaluated based on the following: calendar, copy of a progress report, all class assignments, notes, and quizzes. Organization is important in a notebook. Dividers are essential in that regard. Portfolios will count as a minor quiz grade.

A project may be assigned in Pre-Calculus. Projects are done individually or in pairs with sufficient time to be completed. Projects will be discussed in further detail as we complete a chapter.

Service Learning- Students will be afforded at least 5 hours of SL this school year. SL activities may include going to feeder schools to drop off student made worksheets or tutoring after school, i-recycle events, special Olympics, and so on. SL activities will be discussed in further detail each quarter. Student will need to get approval from teacher before participating from an SL activity.

## Evaluation



Final grades will be determined based on the following criteria:

- Quizzes/ Project 40%
- Mid and Chapter Tests 60%

Teacher will notify parents of child's progress via mid quarter progress reports and online grades. Parents are required to sign the progress report and have their child return it to their teacher. Parent teacher conference will be held every first and third quarters; parents are encouraged to attend.



*Parental involvement plays an important role in their child's education. Please be involved. If you have any questions you can call 300-1870 and leave a message or you can message me in the class webpage or through my email address.*

Class Web Page: [sevillaj.weebly.com](http://sevillaj.weebly.com)  
Email address: [jasevilla@gdoe.net](mailto:jasevilla@gdoe.net)  
To check your grades online: [www.powerschool.com](http://www.powerschool.com)

## Standard Distribution of Grades

110% - 100%	A
99% - 90%	B
89% - 80%	C
79% - 70%	D
69% - below	F

Semester grade will be the average of both quarters.

