



2022-2023 COURSE SYLLABUS

COURSE NUMBER, TITLE, UNITS AND PRINCIPAL/DEPARTMENT APPROVED DESCRIPTION

Pre-Calculus (Two semesters; 5 units each semester; 10 units total)

GENERAL INFORMATION

Term and year: Fall 2022 - Spring 2023

Instructor: Mr. Dennis Plotts

Class Room: B 15

Phone number: (916) 395-5090

E-mail address: dennis-plotts@scusd.edu Plotts

TEXTBOOKS AND/OR RECOMMENDED OR REQUIRED READINGS

Precalculus: 6th Edition, by Larson, Blitzer

GENERAL OVERVIEW

This class is designed to prepare students for college level calculus. Concepts are presented and explored algebraically from graphical and numerical perspectives. Students are expected to participate actively in the development of all concepts. This course is about algebraic and geometric concepts that are important prerequisites for calculus success. In addition, this course is also about algebraic (and trigonometric) mechanics and problem solving to develop the skills and stamina necessary to solve lengthy, multi-step problems, involving a variety of pre-calculus mathematical concepts. Topics covered in this class include the study of functions (polynomial, power, exponential, logarithmic, logistic, rational, irrational, and trigonometric), extensive coverage of trigonometric applications, conic sections, polar coordinates, parametric equations, complex numbers, vectors, matrices, and limits.

COURSE OBJECTIVES

Students will acquire and demonstrate knowledge of the concepts, definitions and properties required to meet the precalculus mathematics standards. Students will develop critical thinking and decision-making skills by connecting concepts to practical applications needed to be productive members of society. All students are expected to demonstrate the following objectives:

- Students should be able to work with functions represented in a variety of ways: graphical, numerical, analytical, or verbal. Students should understand the connections among these representations.
- Students should be able to communicate mathematics both orally and in well-written sentences and should be able to explain solutions to problems.
- Students should be able to model a written description of a physical situation with a function.
- Students should be able to use technology (graphing calculators and graphing software) to help solve problems, experiment, interpret results, and verify conclusions.
- Students should be able to determine the reasonableness of solutions, including sign, size, relative accuracy, and units of measurement.
- Students should develop an appreciation of mathematics as an integrated coherent body of knowledge and as a human accomplishment.



2022-2023 COURSE SYLLABUS

COURSE REQUIREMENTS, ATTENDANCE AND SPECIFIC GRADING POLICY

Grades are based on demonstrated mastery of concepts and development of skills, not effort or potential. *A major component of your grade is determined by your results on exams and quizzes.* Progress reports are available on the District Web site in Infinite Campus. Student overall performance is determined by exams, projects, quizzes as well as assignments, which comprises homework – both traditional and online. Assignments are a guide as to what is most important and what will be tested. *Students not actively engaged in assignments and study will most likely fail the class.*

The math dept. complies with district protocol, viewable at www.scusd.edu. Make-up work/tests are student's responsibility and may not be allowed without a valid excused absence.

DESCRIPTION OF MAJOR ACTIVITIES/EXERCISES/PROJECTS

Instructional Strategies and Activities Include:

- Lecture on concepts and techniques
- Presentation/modeling of examples and strategies
- Large and small group discussions and explorations
- Reading and writing assignments
- Practice and learning through classwork and homework assignments
- Applications to demonstrate relevance and extend learning
- Active student engagement in group work and discussions
- Quizzes, and tests to encourage and monitor learning

GENERAL STATEMENTS

Students are expected to be familiar with and adhere to policies in the JFKHS Student Handbook. The student handbook identifies student rights, responsibilities, discipline rules and consequences, behavior, and other information for academic and social success.

All material submitted might be retained by the instructor. The Principal reserves the right to modify and/or change the course syllabus as needed during the course. The teacher has the right to adjust assessments, daily assignments and due dates as necessary.

COURSE REQUIREMENTS, ATTENDANCE AND GRADING POLICY

Grading Scale:

89.5% - 100%	A
79.5% - 89.49%	B
69.5% - 79.49%	C
59.5% - 69.49%	D
0 % - 59.49%	F

85% Tests, Projects and Quizzes
15% Assignments



2022-2023 COURSE SYLLABUS

HOMEWORK AND STUDY: Homework and student study is an essential part of your education. Any student expecting to do well in this course should carefully do all the assigned work. Some assignments require students to complete activities from the Khan Academy Website and the Desmos Website. Instructors will provide access to computer as much as possible. Additionally, the student have access to the library computers to complete assignments if need be.

TESTS/EXAMS: A comprehensive test to measure students' mastery of skills and concepts will be given, as a minimum, at the end of each chapter/unit; mid-unit tests and quizzes will also be given based on chapter content. Students will be informed of the comprehensive unit test date at least a week in advance. Unexcused absences before the test date do not excuse a student from taking the test as scheduled.

CHARACTERISTICS OF QUALITY WORK: Using the following guidelines will help you master the Integrated Mathematics II objectives. Quality work has the following characteristics.

- Is complete with full solution. That is, all problems are completed or at least attempted.
- The supporting work for each problem is shown completely using proper algebraic conventions and notations.
- The work is done neatly.
- The work is done accurately.
- Work is corrected.

ACADEMIC DISHONESTY: Academic dishonesty is considered a serious offense in my class. Students cheating will face serious consequences. I encourage collaboration on all assignments but we expect the work you hand in (assignments, exam/quiz, etc.) to be your own. Students suspected of academic dishonesty will have their assignment/ test held by the instructor and be summoned to meeting that may include parents and administration.