

Pre-Calculus
Fall Semester Syllabus
(Syllabus is subject to change)

St. Augustine High School
Room C-116

Charles A. Whitfield
Mathematics Teacher
charles_whitfield@st-augustine.org

Textbook
Precalculus with Limits
A Graphing Approach
Larson, Hostetler, Edwards
Second Edition

In Precalculus, students continue to build on the K-8, Algebra I, Algebra II, and Geometry foundations as they expand their understanding through other mathematical experiences. Students use symbolic reasoning and analytical methods to represent mathematical situations, to express generalizations, and to study mathematical concepts and the relationships among them. Students use functions, equations, and limits as useful tools for expressing generalizations and as means for analyzing and understanding a broad variety of mathematical relationships. Students also use functions as well as symbolic reasoning to represent and connect ideas in geometry, probability, statistics, trigonometry, and calculus and to model physical situations. Students use a variety of representations (concrete, numerical, algorithmic, graphical), tools, and technology to model functions and equations and solve real-life problems.

Date	Topics
August 15-17	Introductions, rules, procedures, expectations, etc
August 20-24	The Cartesian Plane Graphs and Graphing Utilities Quiz
August 27-31	Review Test Lines in a Plane Solving Equations Algebraically and Graphically

September 3-7	Solving Equations Algebraically and Graphically Quiz
September 10-14	Review Test Solving Inequalities Algebraically and Graphically Functions
September 17-21	Quiz Graphs of Functions Shifting, Reflecting, and Stretching Graphs Combinations of Functions
September 24-28	Review Test Combination of Functions Inverse Functions
October 1-5	Quadratic Functions Quiz Polynomial Functions of Higher Degree Real Zeros of Polynomial Functions
October 8-12	Quiz Real Zeros of Polynomial Functions Complex Numbers
October 15-19	Review Test The Fundamental Theorem of Algebra Rational Functions and Asymptotes
October 22-26	Graphs of Rational Functions Exponential Functions and Their Graphs Quiz
October 29-Nov. 2	Logarithmic Functions and Their Graphs Quiz Properties of Logarithms

November 5-9	Review Test Properties of Logarithms Solving Exponential and Logarithmic Equations
November 12-16	Exponential and Logarithmic Models Radian and Degree Measures Quiz
November 19-21	Review Test Trigonometric Functions: The Unit Circle
November 26-30	Trigonometric Functions: The Unit Circle Right Triangle Trigonometry Quiz
December 3-7	Right Triangle Trigonometry Quiz
December 10-14	Review Test Review for Semester Exams
December 17-21	Semester Exams

Spring Semester Syllabus

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Date	Topics
January 7-11	Trigonometric Functions of any Angle Graphs of Sine and Cosine Functions Quiz
January 14-18	Review Test Graphs of Other Trigonometric Functions Inverse Trigonometric Functions
January 21-25	Applications and Models Using Fundamental Identities Quiz
Jan. 28-Feb. 1	Review Test Verifying Trigonometric Identities Solving Trigonometric Equations
February 4-8	Sum and Difference Formulas Multiple-Angle and Product-Sum Formulas Quiz
February 11-15	Review Test Law of Sines
February 18-22	Law of Cosines Vectors in a Plane Quiz
February 25-29	Review Test Vectors and Dot Products Solving Systems of Equations

March 3-7	Systems of Linear Equations in Two Variables Quiz Multivariable Linear Systems
March 10-14	Review Test Sequences and Series Arithmetic Sequences
March 24-28	Quiz Geometric Sequences The Binomial Theorem
March 31-April 4	Counting Principal Quiz
April 8-11	Probability Measures of Central Tendency
April 14-18	Review Test Matrices and Systems of Equations Operations with Matrices
April 21-25	The Inverse of a Square Matrix The Determinant of a Square Matrix Quiz
April 28-May 2	Review Test Applications of Matrices and Determinants Introductions to Conics: Parabolas
May 5-9	Ellipses Hyperbolas
May 12-16	Review Test Review for Final Exams
May 19-23	Final Exams

Daily assignments will count for 10% of the grade.

Quizzes will count for 30% of the grade.

Tests will count for 60% of the grade.

Missed assignments, quizzes, or tests should be made up within three school days.

Arrangements need to be made with the teacher about when this can be done.

Students should have a TI 83 or TI 84 graphing calculator available for all class periods and for assignments.

Students needing more help outside the class time should make arrangements with the teacher either from 7:30-7:55 AM or 3:15-4:00 PM.