



High School Math

Algebra I

Throughout this online course, students are guided through the basics of algebra with lessons that focus on functions, linear equations, compound inequalities, exponential expressions, radicals, monomials, trinomials, polynomials, and quadratics. Students are encouraged to use various types of reasoning to formulate and evaluate math problems and solutions. Rooted in fundamentals, this course prepares students for higher-level math concepts. The course units include text-based lessons, on and off-computer exercises, special projects, learning games, quizzes, and tests that appeal to today's digital generation and help teachers to evaluate progress and mastery of the materials. Algebra I enriches the educational experience for homeschool students and sparks a passion for learning.

Throughout the course, students will explore the following topics:

- Foundations of Algebra
- Variables and Equations
- Functions
- Inequalities
- Linear Systems
- Polynomials
- Exponential and Radical Functions
- Quadratics
- Rational Expressions
- Probability and Statistics

Geometry

Students enrolled in this online geometry course are guided by a teacher in lessons that discuss simple points, lines, and ultimately complex shapes. Study includes coordinate geometry and isometry. Students will be encouraged to look beyond the obvious and focus on visualization, spatial reasoning, and problem solving from a Christ-centered perspective. The course units include text-based lessons, on and off-computer exercises, special projects, learning games, quizzes, and tests that appeal to today's digital generation and help teachers to evaluate progress and mastery of the materials. Geometry enriches the educational experience for

homeschool students and sparks a passion for learning.

Throughout the course, students will explore the following topics:

- The Nature of Geometry
- Logic and Reasoning
- Angles and Parallels
- Triangles and Quadrilaterals
- Similar Polygons
- Circles and Spheres
- Area and Volume
- Coordinate Geometry
- Transformations

Algebra II

More exciting than a traditional textbook, this interactive course allows students to work at an individualized pace as they delve into the complexities of higher-level math. Students will learn to combine terms in algebraic expressions and explore compound sentences. Other topics include polynomial functions, data analysis, logarithms, function graphing, joint and combined variation, algorithms, conic sections, and probability. The course units include text-based lessons, on and off-computer exercises, special projects, learning games, quizzes, and tests that appeal to today's digital generation and help teachers to evaluate progress and mastery of the materials. Algebra II enriches the educational experience for homeschool students and sparks a passion for learning.

Throughout the course, students will explore the following topics:

Sets, Structure, and Function
Numbers, Sentences, and Problems
Linear Equations and Inequalities
Polynomials
Algebraic Fractions
Real and Imaginary Numbers
Quadratic Relations and Systems
Exponential Functions
Counting Principles and Outcomes

Pre-Calculus

With a clear, step-by-step delivery, this online course covers a wide range of mathematical concepts including an in-depth observation of math functions, quadratic inequalities, logarithms, probabilities, and permutation. Lessons are interactive to encourage retention of complex information and provide learning tools to clarify complicated mathematic operations. The course units include text-based lessons, on and off-computer exercises, special projects, learning games, quizzes, and tests that appeal to today's digital generation and help teachers to evaluate progress and mastery of the materials. Pre-Calculus enriches the educational experience for homeschool students and sparks a passion for learning.

Throughout the course, students will explore the following topics:

- Relations and Functions
- Special Functions
- Trigonometric Functions
- Circular Functions and Graphs
- Identities and Functions of Multiple Angles
- Application of Trigonometric Functions
- Inverse Trigonometric Functions and Polar Coordinates
- Quadratic Equations
- Probability
- Calculus Basics

Advanced Calculus Honors

Offer your students the solution for math college preparation with this advanced NFC Academy honors level Calculus course. Instruction begins with Fermat's method, graphs, models, and infinite limits, and takes students through the complex world of higher level calculus. Lessons also cover derivatives and differentiation, related rates, exponential functions, integrating trig functions, and inverse trig functions. The course units include text-based lessons, on and off-computer exercises, special projects, learning games, quizzes, and tests that appeal to today's digital generation and help teachers to evaluate progress and mastery of the materials. This advanced calculus course enriches the educational experience for homeschool students and sparks a passion for learning.

Throughout the course, students will explore the following topics:

- Graphs and Limits
- Derivatives
- Related Rates
- Derivative Tests

Integrals
Natural Logs and Functions
Area and Volume
Inverse Trig Functions

Consumer Math

High school students can build a sound foundation for future finances with this practical elective created to simplify personal money management and the math concepts that lie beneath the economy. With lessons on employment skills, budgeting in the home, running a home business, auto and home buying, recordkeeping, and retirement planning, this course helps clear up some of the complexities of economic life for your high school students. The course units include text-based lessons, on and off-computer exercises, special projects, learning games, quizzes, and tests that appeal to today's digital generation and help teachers to evaluate progress and mastery of the materials. This elective enriches the educational experience for homeschool students and sparks a passion for learning.

Throughout the course, students will explore the following topics:

Basic Math Review
Personal Finance
Statistics
Taxes and Insurance
Banking Services and Investments
Banking and Credit Costs
Purchase and Sale of Goods
Leisure, Travel, and Retirement
Job Related Services

Integrated Math

Give your students a broad view of the practical implications of math with this interactive course *created for Christian high school students. Beginning with an introduction to algebra, the course* leads students through the study of variables and expressions, radicals, exponents, geometry, functions, linear and quadratic equations, graphing, probability, and statistics. The course units include text-based lessons, on and off-computer exercises, special projects, learning games, quizzes, and tests that appeal to today's digital generation and help teachers to evaluate progress and mastery of the materials. Integrated Math I enriches the educational experience for homeschool students and sparks a passion for learning.

Throughout the course, students will explore the following topics:

Foundations of Algebra
The Language of Algebra
Geometry
Coordinate Geometry
Linear Systems
Equations and Inequalities
Probability and Statistics

Trigonometry

Give your students a jumpstart on college math with this high level trigonometry elective for students who have successfully completed Algebra II. The course teaches students to develop trigonometric formulas and use them to solve real-world problems. Topics include right angle trigonometry, sines and cosines, vectors, polar coordinates, graphing, and complex numbers.

The course units include text-based lessons, on and off-computer exercises, special projects, learning games, quizzes, and tests that appeal to today's digital generation and help teachers to evaluate progress and mastery of the materials. Trigonometry enriches the educational experience for homeschool students and sparks a passion for learning.

Throughout the course, students will explore the following topics:

Right Triangle Trigonometry
Graphing and Inverse Functions
Analytic Trigonometry
Trigonometric Applications
Polar Coordinates

Essentials of Math

Skills-based and concept driven, this elective course for students in grades 8-12 provides a practical review of math foundations. This elective is filled with multimedia-rich lessons that help students remember key ideas in less time than required by complete re-teaching. With Essentials of Math, students are better prepared for end of instruction assessment and learn the skills to succeed in higher level mathematics. The course units include text-based lessons, on and off-computer exercises, special projects, learning games, quizzes, and tests that appeal to today's digital generation and help teachers to evaluate progress and mastery of the materials. This elective enriches the educational experience for homeschool students and sparks a passion

for learning.

Throughout the course, students will explore the following topics:

- Number Sense
- Statistics, Data, Analysis, and Probability
- Algebra and Functions
- Measurement and Geometry
- Mathematical Reasoning
- Algebra I