

NFC ACADEMY



COURSE OVERVIEW

Trigonometry is a five-unit elective course for high school students who have successfully completed Algebra I, Geometry, and Algebra II. The materials cover a development of trigonometry from right triangle trigonometry to oblique triangles and the polar plane. Throughout the course, students will develop trigonometric formulas and use them in real-world applications, evaluate trigonometric proofs using complex trigonometric identities and solving trigonometric equations with regard to the unit circle.

OBJECTIVES

The course seeks to help students expand their knowledge and skills so that they may achieve the following goals:

- Use trigonometry as a tool for indirect measurement.
- Model natural phenomenon with trigonometric functions.
- Perform operations with complex numbers using trigonometry.
- Use trigonometric identities to evaluate trigonometric proofs and solve trigonometric equations with regard to the unit circle.
- Solve for unknown sides and angles of right and oblique triangles using right triangle trigonometry, law of sines and law of cosines.

In attaining these goals, students will begin to see the "big picture" of mathematics and understand how numeric, algebraic, and geometric concepts are woven together to build a foundation for higher mathematical thinking.

COURSE CONTENT

- **UNIT - RIGHT TRIANGLE TRIGONOMETRY**
- **UNIT 2 - GRAPHING AND INVERSE FUNCTIONS**
- **UNIT 3 - ANALYTIC TRIGONOMETRY**
- **UNIT 4 - TRIGONOMETRIC APPLICATIONS**
- **UNIT 5 - POLAR COORDINATES**
- **UNIT 6 - COURSE REVIEW AND EXAM**

REQUIRED RESOURCES

Some assignments in this course require the use of resources that must be supplied by the user. These outside resources are listed by assignment.

TRIGONOMETRY		
Unit	Assignment Title	Supply List
All	All Assignments	<ul style="list-style-type: none">• Scratch Paper/Notebook• Scientific or Graphing Calculator
2,3	Various Assignments	<ul style="list-style-type: none">• Printer

GRADING INFORMATION

GRADING COMPONENTS

Lessons	40%
Quizzes	30%
Tests	30%

GRADING SCALE

100-90	A
89-80	B
79-70	C
69-60	D
Below 60	F

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