Trigonometry

Textbook: Trigonometry , 7th Edition

Charles P. Mc Keague; Mark Turner

Email Address: mmurphy@accountax.us

Course Description:

This course is an advanced math course that teaches trigonometry functions, identities and equations with practical application. The course is expanded to include analytic geometry, complex numbers, and exponential and logarithmic functions and equations.

Attendance login requirements: Students must log into class at the scheduled class time and remain until class ends. Student must attend class 165 days per year.

Homework: Homework assignments will be given at the discretion of the instructor.

Class Participation: All class participation will be online. Instructor will give written feedback on progress and acceptable work directly to student online.

Course Grade Policy:

90-100 average = A

80-89 average = B

70-79 average = c

60-69 average =D

Below 60 = F

Quizzes/Exams: There will be a quiz after each unit of study. You will have two opportunities to pass the test with a grade of 60. Mid-Term and Final Exams will be counted twice in grade averaging.

Semester I

Chapter 1 The Six Trignonmetric Functions

Section 1.1 Angles, Degrees, and Special Triangles

Section 1.2 The Rectangular Coordinate System

Section 1.3 Definition I: Trigonometric Functions

Section 1.4 Introduction to Identities

Section 1.5 More on Identities

Chapter 2 Right Triangle Trigonometry

Section 2.1 Definition II: Right Triangle Trigonometry

Section 2.2 Calculators and Trigonometric Functions of an Acute Angle

Section 2.3 Solving Right Triangles

Section 2.4 Applications

Section 2.5 Vectors: A Geometric Approach

Chapter 3 Radian Measurement

Section 3.1 Reference Angle

Section 3.2 Radians and Degrees

Section 3.3 Definition III: Circular Functions

Section 3.4 Arc Length and Area of a Sector

Section 3.5 Velocities

Chapter 4 Graphing and Inverse Functions

Section 4.1 Basic Graphs

Section 4.2 Amplitude, Reflection, and Period

Section 4.3 Vertical and Horizontal Translations

Section 4.4 The Other Trigonometric Functions

Section 4.5 Finding an Equation from Its Graph

Section 4.6 Graphing Combinations of Functions

Section 4.7 Inverse Trigonometric Functions

Chapter 5 Identities and Formulas

Section 5.1 Providing Identities

Section 5.2 Sum and Difference Formulas

Section 5.3 Double-Angle Formulas

Section 5.4 Half-Angle Formulas

Section 5.5 Additional Identities

Chapter 6 Equations

Section 6.1 Solving Trigonometric Equations

Section 6.2 More on Trigonometric Equations

Section 6.3 Trigonometric Equations Involving Multiple Angles

Section 6.4 Parametric Equations and Further Graphing

Chapter 7 Triangles

Section 7.1 The Law of Section 7.2 Sines

Section 7.2The Law of Cosines

Section 7.3 The Ambiguous Case

Section 7.4 The Area of a Triangle

Section 7.5 Vectors: An Algebraic Approach

Section 7.6 Vectors: The Dot Product

Chapter 8 Complex Numbers and Polar Coordinate

Section 8.1 Complex Numbers

Section 8.2 Trigonometric Form for Complex Numbers

Section 8.3 Products and Quotients in Trigonometric Form

Section 8.4 Roots of a Complex Number

Section 8.5 Polar Coordinates

Section 8.6 Equations in Polar Coordinates and Their Graphs