2016-2017 Algebra II with Trigonometry
Trigonometry Unit Objectives

13-1

- ☐ Evaluate the three basic trigonometric functions and their reciprocals for an angle in a right triangle
- ☐ Find the side lengths of special right triangles using the relationships of sides
- ☐ Solve application problems using trigonometric functions and angles of depression/elevation

13-2

- ☐ Draw any angle in standard position
- ☐ Find coterminal angles
- ☐ Determine the reference angle for any given angle
- ☐ Evaluate the three basic trigonometric functions and their reciprocals for an angle through a given point

13-3

- ☐ Convert angle measures from degrees to radians OR radians to degrees
- ☐ Use the unit circle to evaluate the trigonometric functions for an angle given in degrees or radians
- ☐ **Determine the length of an arc using the arc length formula $s = r\theta$

13-4

- ☐ Evaluate an inverse trigonometric function for *all possible* solutions
- ☐ Evaluate an inverse trigonometric function in the restricted domain
- ☐ Use inverse trigonometric functions to solve application problems

13-5

- ☐ Use the Law of Sines to solve triangles
- ☐ Demonstrate your ability to check for and solve all triangles given an ambiguous case

13-6

- ☐ Use the Law of Cosines to solve triangles

14-1

- ☐ Identify the following transformations of sine or cosine functions:
  - Amplitude
  - Period
  - Phase Shift
  - Vertical Shift
- ☐ Graph sine or cosine functions that have
  - Amplitude change
  - Period change
  - vertical shift
  - phase shift (Phase shift and period change WILL NOT happen together)