

## **Pre-Calculus 1<sup>st</sup> six weeks -- Cothran**

Objectives to be covered:

- Angle and Degree Measure
- Trigonometric Ratios in Right Triangles
- Trigonometric Functions on the Unit Circle
- Applying Trigonometric Functions
- Solve Right Triangles
- The Law of Sines
- The Ambiguous Cases for the Law of Sines
- The Law of Cosines
- Angles and Radian Measure
- Linear and Angular Velocity
- Graphing Sine and Cosine Functions
- Translations of Sine and Cosine Functions
- Modeling Real-World Data with Sinusoidal Functions
- Graphing Other Trigonometric Functions
- Trigonometric Inverses and their graphs

Vocabulary:

vertex, initial side, terminal side, degree, minutes, co terminal, angles, quadrantal angles, hypotenuse, legs side adjacent, side opposite, trigonometric ratio, sine, cosine, tangent, cotangent, secant, cosecant, unit circle, sine, cosine, tangent, cotangent secant, cosecant, circular, functions, trigonometric functions, angle of elevation, angle of depression, inverse, arcsine relation, arccosine relation, arctangent relation, solve a triangle, Law of Sines, ambiguous case, Law of Cosine. radian, circular arc, central angle, sector, angular displacement, angular velocity, dimensional analysis, linear velocity, periodic, period, amplitude, frequency, phase shift, vertical translation, midline, compound functions, sinusoidal function, principal values