**MATH 1112 College Trigonometry (3 credit hours)**

Catalog Description: This course is an in-depth study of the properties of trigonometric functions and their inverses. Topics include circular functions, special angles, solutions of triangles, trigonometric identities and equations, graphs of trigonometric functions, inverse trigonometric functions and their graphs, Law of Sines, Law of Cosines, and vectors.

**A.** Review Topics: Upon entering Trigonometry a student should have complete understanding and mastery of College Algebra.   No review topics.

B. Uniform Requirements: 80% to 90% of the class time will be spent on these topics.

1.  Degree and radian measures
2. Right triangle trigonometry
3. Unit Circle trigonometry
4. Graphs of Trigonometric functions (period, amplitude, etc.)
5. Inverse trigonometric functions
6. Identities including Sum and Difference, double and half angle; proving identities
7. Solving trigonometric equations
8. Applications
     - Law of Sines/Cosines
     - Vectors

C. Additional Topics: 10% to 20% of the time in this class may be spent on the following topics.

1. Conic Sections
2. Non-linear systems of equations
3. Rational Functions
4. Polar Coordinates / DeMoivre's Theorem