COURSE NUMBER: MAT200

COURSE TITLE: Precalculus

Faculty Name:

Contact Information:

Pre-Requisite: MAT121 with a minimum grade of C or college algebra equivalent

Text/Software:

Credits: 3

40 Hours of Structured Learning Activities

COURSE DESCRIPTION: This course provides an integrated review of intermediate algebra, analytic geometry, and basic trigonometry in order to prepare the student for calculus. Appropriate topics in algebra are reviewed. The concept of “function” is stressed. Various classes of functions and their respective graphs and applications will be covered. Specifically, the course will cover linear, quadratic, polynomial, rational, exponential, logarithmic, and trigonometric functions. Please note that a minimum grade of C is required in order for students to take Calculus I (MAT 310).

At the conclusion of this course students will be asked to evaluate the course based on the following objectives:

- Gain factual knowledge (terminology, classifications, methods, trends).
- Learn fundamental principles, generalizations or theories.
- Learn to apply course material (to improve thinking, problem solving and decisions).
COURSE GOALS

GOAL A: Analyze Functions

Learning Objectives: The student will:
A-1 Compare and graph inverse functions.
A-2 Simplify and graph polynomial functions, including linear and quadratic.
A-3 Simplify and graph rational functions.
A-4 Simplify and graph radical functions.
A-5 Simplify and graph exponential and logarithmic functions.
A-6 Simplify and graph trigonometric functions.
A-7 Verify trigonometric identities.
A-8 Evaluate trigonometric functions for any angle.

GOAL B: Solve Equations and Triangles

Learning Objectives: The student will:
B-1 Solve linear and quadratic equations.
B-2 Solve rational equations.
B-3 Solve radical equations.
B-4 Solve exponential and logarithmic equations.
B-5 Solve trigonometric equations.
B-6 Solve right triangles.
B-7 Solve triangles using Laws of Sine and Cosine.

GOAL C: Analyze vectors

Learning Objectives: The student will:
C-1 Use trigonometry to calculate sums of vectors algebraically and geometrically.
C-2 Use trigonometry to calculate magnitude and direction for vectors.

EVALUATION PROCEDURE AND GRADING POLICY:

LATE ASSIGNMENT POLICY:

CAS CLASSROOM STANDARDS: See Blackboard “Syllabus” area

COURSE SCHEDULE (all assignments/exams and due dates):