COURSE NUMBER: MAT205

COURSE TITLE: Introductory Survey of Mathematics

Faculty Name:

Contact Information:

Pre-Requisite: Pass math skills assessment or MAT110 with minimum grade of C or better.

Text/Software:

Credits: 3

40 Hours of Structured Learning Activities

COURSE DESCRIPTION: This course provides an introduction to a broad range of areas in mathematics, including algebra, probability, and statistics. Topics in algebra include solving and graphing linear, quadratic, and exponential functions in context. Topics in probability include counting principles, combination, permutations, compound and independent events. The statistics portion of the course covers measure of central tendency, measures of dispersion and the normal curve. Please note that the minimum passing grade for this course is “C.”

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:**
Quantitative Analysis of Functions

Learning Objectives: The student will:
A-1 Solve linear, quadratic, and exponential equations.
A-2 Solve linear and quadratic inequalities.
A-2 Graph linear, quadratic, and exponential functions.
A-3 Demonstrate an understanding of data relationships, functions and functional notation.
A-4 Apply functions in the context of average rate of change, parabolic motions and growth and decay models.
A-5 Compute simple and compound interest.

**GOAL B:**
Quantitative Analysis for Probability

Learning Objectives: The student will:
B-1 Use counting principles.
B-2 Calculate combinations and permutations.
B-3 Calculate probability and odds for simple events.
B-4 Calculate probability for compound and independent events.
B-5 Calculate expected value.

**GOAL C:**
Quantitative Analysis for Statistics

Learning Objectives: The student will:
C-1 Create appropriate visual displays of data.
C-2 Calculate and compares measures of central tendency.
C-3 Calculate and interpret measures of dispersion.
C-4 Calculate and interpret measures of position.
C-5 Calculate and interpret z-scores and normal distribution probabilities.

**EVALUATION PROCEDURE AND GRADING POLICY:**

**LATE ASSIGNMENT POLICY:**

**CAS CLASSROOM STANDARDS:** See Blackboard “Syllabus” area

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