COURSE NUMBER: MAT110

COURSE TITLE: Math Essentials

Faculty Name:

Contact Information:

Pre-requisites: Pass math skills assessment or successful completion of MAT095

Text/Software:

Credits: 3

40 Hours of Structured Learning Activities

COURSE DESCRIPTION: This course provides a basic introduction to algebra. Topics covered include: real numbers and their properties, algebraic expression and exponents, solving first-degree equations in one variable, solving and graphing inequalities, graphing linear equations, using slope and y-intercept in graphing, solving linear systems, polynomials and polynomial operations. Solving quadratic equations will be introduced. Applications of algebra and the use of formulas will be covered. Credit for this course applies toward graduation as an elective. (Please note: the minimum passing grade is a “C”, or 77%.)

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

IDEA – 1 Gain factual knowledge (terminology, classifications, methods, trends).
IDEA – 2 Learn fundamental principles, generalizations or theories.
IDEA – 3 Learn to apply course material (to improve thinking, problem solving and decisions).
COURSE GOALS

GOAL A:
Solve linear equations and inequalities.

Learning Objectives: The student will:
A-1 Simplify expressions using the order of operations.
A-2 Solve multi-step linear equations.
A-3 Solve applications of percent.
A-4 Solve multi-step linear inequalities.
A-5 Use linear equations and inequalities to model and solve problems in a real-life context.
A-6 Solve systems of equations using the substitution and elimination methods.

GOAL B:
Graph linear equations and inequalities.

Learning Objectives: The student will:
B-1 Determine slope of a line given specific information.
B-2 Interpret slope, in context, as rate of change.
B-3 Graph equations of lines.
B-4 Compare and contrast parallel and perpendicular lines.
B-5 Graph linear inequalities on a number line (one variable) and on a plane (2 variables.)

GOAL C:
Demonstrate an understanding of polynomials.

Learning Objectives: The student will:
C-1 Identify types of polynomials.
C-2 Perform operations with polynomials.
C-3 Factor trinomials.
C-4 Solve quadratic equations by factoring.
C-5 Solve quadratic equation by the quadratic formula.

EVALUATION PROCEDURE AND GRADING POLICY:

LATE ASSIGNMENT POLICY:
CAS CLASSROOM STANDARDS: See Blackboard “Syllabus” area

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