MOHAWK VALLEY COMMUNITY COLLEGE

UTICA and ROME, NEW YORK

COURSE OUTLINE

MA 099 Introduction to Elementary Algebra

Prepared July 2014

Reviewed May 2016

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COURSE OUTLINE

Title: Introduction to Elementary Algebra

Catalog Number: MA 099

Contact Hours: 1

Practicum Hours: 0

Credit Hours: 0

Prerequisite: MA 090

Catalog

Description: This course provides the skills necessary for the transition from MA090 for MA115 or MA171. Operation properties, multi-step equations, polynomials, and graphing lines are covered.

**Major Topics:**

For each of the following topics the student will:

**Topic 1. Algebraic Expressions and Linear Equations**

* 1. Simplify algebraic expressions using the operations of addition and subtraction and distribution of a constant over an expression.
  2. Evaluate algebraic expressions.
  3. Evaluate formulas, including when the desired variable is not isolated.
  4. Determine solutions to first degree equations by applying the addition and multiplication properties of equations.
  5. Translate given verbal sentences into equations and solve the resulting equations.

**Topic 2. Lines**

2.1 Graph ordered pairs on a rectangular coordinate system.

2.2 Determine solutions of given linear equations in two variables.

2.3 Graph solutions of given linear equations in two variables on a rectangular coordinate system.

2.4 Recognize and graph horizontal and vertical lines from given equations.

2.5 Determine the x and y-intercepts of given linear equations in two variables.

2.6 Determine and interpret the slopes of lines given two points on the line and/or given the equation of the line.

2.7 Determine an equation of a line given a point and the slope and/or given the graph of a linear equation.

**Topic 3. Polynomials**

3.1 Use the Rules of Exponents to simplify an expression.

3.2 Add and subtract polynomials

3.3 Multiply a monomial by a polynomial, a binomial by a binomial, and divide a polynomial by a monomial.

3.4 Factor the Greatest Common Factor from a polynomial.