Sinclair Community College
444 E. Third St.
Dayton, OH 45402

Master Syllabus

MAT 1370 - Intermediate Algebra

Division: Science, Mathematics and Engineering

Department: Mathematics

Credit Hour Total: 5.0 **Lecture Hrs:** 5.0

Prerequisite(s): MAT 1270

Other Prerequisite(s): AND Other With a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

Date Revised: February 2014

Course Description:

Factoring; operations with polynomials and rational expressions; solving second-degree equations by factoring; operations with rational exponents, radical expressions and complex numbers; relations and functions; simplifying radical expressions; solving equations with rational expressions, equations with radical expressions, quadratic equations by completing the square and the quadratic formula, equations quadratic in form; quadratic functions; variation. Traditional testing (proctored or in Testing Center) is used in all online sections.

General Education Outcomes:

- Critical Thinking/Problem Solving

Course Outcomes:

Perform Operations
Demonstrate the ability to add, subtract, multiply and divide polynomial expressions, rational expressions, radical expressions and complex numbers.

Assessment Method: Locally developed exams
Performance Criteria: Passing Grade with a score of 70% or better on exams

Simplify Algebraic Expressions
Demonstrate the ability to simplify polynomial, rational and radical expressions and expressions involving complex numbers.

Assessment Method: Locally developed exams
Performance Criteria: Passing Grade with a score of 70% or better on exams

Factor Polynomials
Demonstrate the ability to factor polynomials having one, two, three or four terms.

Assessment Method: Locally developed exams
Performance Criteria: Score of 70% or better on exams

Solve Algebraic Equations
Demonstrate the ability to solve equations, formulas and applications involving quadratic, rational and radical expressions.

Assessment Method: Locally developed exams
Performance Criteria: Passing Grade with a score of 70% or better on exams

Outline:

Simplify exponential, rational and radical expressions Perform arithmetic operations on polynomials, rational and radical expressionsFactor polynomialsSolve quadratic, rational and radical equations and applied problemsDetermine whether a relation is a functionGraph quadratic functions