Master Syllabus

MATH 1105 – College Algebra

Revision Date: August 14, 2018

Previous Revision Dates (list all): 2/22/2017

Course Credit Value: 3

    If taught in a 15 week semester, students spend the following clock hours, each week in:

        Lecture: 3
        Laboratory: 0
        Clinical Experience/Internship/Workplace experience: 0

Pre and/or Co Requisites:

Pre-Requisite(s):	ACT score of 19 or better, SLCC placement, or a grade of C or better in MATH 0083
Concurrency:	None
Co- Requisite(s):	None
Equivalency SLCC:	NA
Equivalency BOR:	CMAT 1213

Course Description: In-depth treatment of solving equations and inequalities; function properties and graphs; inverse functions; linear, quadratic, polynomial, rational, exponential and logarithmic functions with applications; systems of equations. A graphing calculator is required. Only one of the following algebra courses may be applied toward a degree: MATH 1100 or 1105.

Student learning Outcomes:

As a result of successful completion of this course the student will be able to:

1. Analyze linear, absolute value, quadratic, polynomial, rational, and root functions that are represented numerically, graphically, or analytically
2. Solve systems of linear equations
3. Demonstrate the ability to manipulate exponential and logarithmic expressions and solve exponential and logarithmic equations.
4. Analyze problems using critical thinking

Course Content:

NOTE: The intention of this master course syllabus is to provide you with an overview of the contents of this course, as specified by the faculty of South Louisiana Community College. Please note: individual course syllabi will reflect the diversity of individual approaches to course material and assessment.
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I. Graphs, Functions and Models
    A. Introduction to Graphing
    B. Functions and Their Graphs
    C. Linear Functions, Slope and Applications
    D. Equations of Lines and Modeling
    E. Linear Equations, Functions, Zeros and Applications
    F. Solving Linear Inequalities
    G. Systems of Linear Equations

II. More on Functions
    A. Increasing, Decreasing and Piecewise Functions and Applications
    B. The Algebra of Functions
    C. The Composition of Functions
    D. Symmetry and Transformations

III. Quadratic Functions and Equations and Inequalities
    A. Quadratic Equations, Functions, Zeros and Models
    B. Analyzing Graphs of Quadratic Functions
    C. Solving Rational Equations and Radical Equations
    D. Solving Equations and Inequalities with Absolute Value

IV. Polynomial Functions and Rational Functions
    A. Polynomial Functions and Models
    B. Graphing Polynomial Functions
    C. Polynomial Division; The Remainder Theorem and the Factor Theorem
    D. Rational Functions

V. Exponential Functions and Logarithmic Functions
    A. Inverse Functions
    B. Exponential Functions
    C. Logarithmic Functions
    D. Properties of Logarithmic Functions
    E. Solving Exponential and Logarithmic Equations

Methods of Delivery: Lecture

Assessment: There could be three or four tests and a comprehensive final exam. Instructors may also use additional assessment such as graded homework, quizzes, projects, reports and other writing assignments, group activities, and portfolios. The grading scale is as follows: A: 90-100; B: 80-89; C: 70-79; D: 60-69; F: 0-59.

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