Course and Number: MATH 1099 ~ Bridge to College Math

CREDITS: 3  CLASS HOURS PER WEEK: 6 (6 lab)

PREREQUISITE: Based on placement into DEV 0114, MATH 1050 or MATH 1075.

DESCRIPTION OF THE COURSE:
The topics contained in DEV 0114, MATH 1050, and MATH 1075 (or MATH 1060) will be delivered in a self-paced format using technology, allowing students to begin at the appropriate level based on course placement and allowing them to move through as many topics, and courses, as they can within the time limits of the semester. Students will be assessed regularly in order to determine their level of mastery. Emphasis will be placed on individualized pace with a greater time period of active learning. At the end of the course, based on proficiency of the topics in one or more courses, students will earn a grade of “S” for satisfactory progress and gain permission to enter subsequent courses in their plan of study.

LEARNING OUTCOMES:
Whole number operations (DEV 0114)
Rounding and estimating (DEV 0114)
Perimeter and area (DEV 0114)
Integer operations (DEV 0114)
Order of operations and algebraic expressions (DEV 0114)
Solve linear equations (DEV 0114)
Fractions and mixed number operations (DEV 0114)
Decimal operations (DEV 0114)
Applications and problem solving including ratio, proportion, and percent (DEV 0114)
The Real Number system (MATH 1050)
Linear equations and inequalities in one variable (MATH 1050)
The coordinate plane; Overview of graphing equations in two variables (MATH 1050)
Linear equations and inequalities in two variables (MATH 1050)
Systems of linear equations and inequalities in two variables (MATH 1050)
Exponents and polynomials: Add, Sub, Multiply, Divide; Scientific notation (MATH 1050)
Factoring polynomials and solving polynomial equations (MATH 1050)
Recognize Rational and Radical Expressions (MATH 1060)
Recognize Rational, Radical, and Quadratic Equations (MATH 1060)
Manipulate Rational and Radical Expressions using Algebra (MATH 1060)
Solve Equations Involving Rational and Radical Expressions (MATH 1060)
Solve Quadratic Equations using Algebra (MATH 1060)
Solve Applied Problems Involving Rational Expressions and Quadratic Equations (MATH 1060)
Rational expressions and equations (MATH 1075)
Graphs, relations, and functions (MATH 1075)
Compound inequalities; Absolute value equations and inequalities (MATH 1075)
Radical expressions, functions, and equations (MATH 1075)
Complex numbers; Quadratic equations and inequalities (MATH 1075)
Quadratic functions (MATH 1075)
Distance and midpoint formulas; Circles (MATH 1075)

COURSE MATERIALS REQUIRED:
• ALEKS 360 Access Code. This access code is available for purchase only at the CSCC bookstore.
• Calculator

GENERAL INSTRUCTIONAL METHODS:
Each student will have a pacing guide based on completion goals. Each topic will be presented online using technology that allows students to move at an individualized pace. Students complete practice problems that contain a variety of instructional opportunities. Instructional resources include video lectures, online explanations, an eBook, and interactive animations. The instructor will provide individualized assistance in addition to the online resources. The ALEKS program will periodically assess students to make sure they remember what they have practiced and will reroute students back to any topics they did not master.