LABETTE COMMUNITY COLLEGE BRIEF SYLLABUS

SPECIAL NOTE:
This brief syllabus is not intended to be a legal contract. A full syllabus will be distributed to students at the first class session.

TEXT AND SUPPLEMENTARY MATERIALS USED IN THE COURSE (if any):

Please check with the LCC bookstore, http://www.labette.edu/bookstore, for the required texts for this class.

COURSE NUMBER:	MATH 095
COURSE TITLE:	BEGINNING ALGEBRA WITH REVIEW
SEMESTER CREDIT HOURS:	4
DEPARTMENT:	Mathematics
DIVISION:	General Education
PREREQUISITE:	Placement test recommendation or previous enrollment in Math 088 Foundations of Math.
REVISION DATE:	8/2018

COURSE DESCRIPTION:
This course will build skills in basic algebra concepts, confidence, and skills to successfully master math classes, including strategies to reduce math anxiety improve test taking skills. Topics covered in the course will include the basic language and terms of algebra, rules for signed numbers, techniques for solving linear, quadratic, and literal equations rules and properties for exponents as applied to algebraic expressions and the graphing and solving of linear equations and linear systems in two unknowns. (Nontransferable)

COURSE OUTCOMES AND COMPETENCIES:
Students who successfully complete this course will be able to:

1. Perform arithmetic and algebraic manipulation of numerical and algebraic expressions.
   - Master basic arithmetic operations on whole numbers, fractions, and decimals without the use of a calculator.
   - Convert verbal models into mathematical problems.
   - Add, subtract, multiply, and divide signed numbers.
   - Apply properties of integer exponents to simplify numerical and algebraic expressions (including scientific notation).
   - Define and apply the concepts term, coefficient, and degree to expressions.
   - Evaluate the value of an expression by substitution of values for variables.
   - Apply the proper order of operations to simplify expressions.

- Perform addition, subtraction, multiplication, and division on polynomials.
- Factor expressions using common factors, grouping, special formulas, and trinomial techniques.
- Perform addition, subtraction, multiplication, and division on rational expressions.
- Evaluate and simplify numerical radicals (includes multiplicative, and quotient properties).

2. Solve various types of equations and inequalities.

- Apply properties of equality to solve linear equations.
- Solve linear inequalities and graph solutions on the number line.
- Solve literal equations for a specified variable.
- Develop and solve mathematical models including number, geometric, and percent applications.
- Solve quadratic equations ($ax^2 + bx + c = 0$) using factoring.
- Solve applied problems by translating verbal expressions into mathematical equations.
- Perform calculations and solve problems using percents and ratios.

3. Graph points and equations in the Cartesian coordinate system.

- Plot points on the appropriate quadrant or axis of the Cartesian Plane.
- Calculate the slope of a line through two points.
- Graph lines using:
    i. point plotting.
    ii. x – intercept and y – intercept.
    iii. point and slope.
- Identify the x – intercept, y – intercept, and slope of a line given its equation.
- Use two points or a given point and the slope to determine the equation of a line using point – slope and slope – intercept forms.

4. Demonstrate effective math study skills.

- Demonstrate knowledge of basic math vocabulary.
- Apply learning styles to math study skills.
- Develop memory building strategies.
- Identify characteristics, causes and misconceptions related to math anxiety.
- Identify strategies to overcome math and test anxiety.
- Design math sequence to complete program of study.