NORTHERN NEW MEXICO COLLEGE

Course Number Course Name	Math 100NL Fundamentals of Mathematics and Lab
Credit Value (Breakdown of theory and lab credits)	4 Theory, 1 Lab
Catalog Course Description	This course will cover basic operations (addition, subtraction, multiplication and division) with numbers in addition to all the topics listed in MATH 100N. Students will also spend additional time in a computer lab. Grades are awarded on a CR/NC basis. (5, 4T+1L)
Student Learning Outcomes/Objectives /Competencies of the Course	**Student Learning Outcomes:** At the end of this course the student will be able to: 1. Addition, subtraction, multiplication, and division of numbers 2. Add, subtract, multiply, and divide fractions 3. Add, subtract, multiply, and divide decimals. 4. Convert between fractions, decimals, and percents. 5. Apply and extend previous understandings of numbers to the system of real numbers. a. Classify sets of numbers. b. Recognize that nonterminating, nonrepeating decimals are irrational numbers. c. Graph sets of numbers on the number line. d. Order and compare signed numbers. e. Define absolute value of numbers. f. Illustrate the relationships among natural numbers, whole numbers, integers, rational and irrational numbers, and real numbers. 6. Apply and extend previous understanding of arithmetic operations with real numbers (e.g. fractions, integers). a. Review the arithmetic of fractions. b. Perform arithmetic of signed numbers. c. Apply the order of operations to simplify numerical expressions. d. Evaluate simple expressions. 7. Write and interpret the structures of algebraic expressions. a. Identify terms and coefficients of terms. b. Translate English phrases into algebraic expressions. 8. Use properties of operations to generate equivalent expressions to solve problems. a. Evaluate algebraic expressions. b. Apply the properties of operations to simplify algebraic expressions (e.g. distributive property). 9. Reason about and solve linear equations and inequalities in one variable. a. Use the fundamental properties of equality to find the solutions of equations and inequalities. b. Apply properties of equality to solve for formulas for specified

	variables. c. Graph solutions of linear equations and inequalities on a number line. 10. Approximate and interpret rates of change from an equation as well as from graphical and numerical data. a. Determine the slope of a line. b. Put a line in slope-intercept form. c. Find the equation of a line. d. Graph a line.
College-Wide Student Learning Outcomes	Math 100NL learning objectives align with the following NNMC College Wide Goal: *Critical thought:* • *Students are required to analyze and synthesize information and draw reasoned conclusions.*