Subject:	MATH
Course Number:	501
Descriptive Title:	Math Essentials II: Algebraic Expressions
Division:	Mathematical Sciences
Department:	Mathematics
Course Disciplines:	Mathematics
Catalog Description:	This noncredit course bridges the gap between arithmetic and formal algebra, developing number sense and operation sense, in order to formulate and simplify algebraic expressions with integers, fractions, and percent. Algebraic principles are applied to problems from a variety of fields. Other topics include: proportional reasoning, spatial reasoning, informal geometry and measurement.
Prerequisite:	
Co-requisite:	
Recommended Preparation:	
Enrollment Limitation:	
Hours Lecture (per week):	.22
Hours Laboratory (per week):	0
Outside Study Hours:	.44
Total Course Hours:	4
Course Units:	0
Grading Method:	Pass/No Pass/SP
Credit Status:	Noncredit
Transfer CSU:	No
Effective Date:	
Transfer UC:	No
Effective Date:	
General Education ECC:	
Term:	
Other:	
CSU GE:	
Term:	
Other:	
IGETC:	
Term:	
Other:	

Student Learning Outcomes:	Upon completion of this course, students will be able to: 1. recognize the underlying mathematical concepts in order to successfully evaluate expressions and formulas in a given context (word problems, data, diagrams, etc.) and apply those concepts correctly in authentic, real-world application problems. 2. use visual or graphical methods to simplify linear expressions and solve problems involving geometry and measurement. 3. articulate (orally and/or in written form) the mathematical reasoning they used to express a numeric or linear problem or analyze a numeric or linear situation.
Course Objectives:	1. Perform various operations (addition, subtraction, multiplication, division, and exponentiation) on different sets of numbers (whole, integer, and rational) and recognize equivalence when it occurs, particularly with fractions, decimals and percent. 2. Formulate mathematical representations of real-world applications including the recognition of proportional relationships. 3. Recognize and apply the concepts of variable, expression, and equation. 4. Find perimeters, areas, and volumes of various geometrical shapes and use in applications.
Major Topics:	I. Exponents and polynomials II. Combining like terms III. Operations A. Adding B. Subtracting C. Multiplying
Total Lecture Hours:	4
Total Laboratory Hours:	0
Total Hours:	4
Primary Method of Evaluation:	2) Problem solving demonstrations (computational or non-computational)
Typical Assignment Using Primary Method of Evaluation:	Find the sum, difference and product of $948x+348$ and $-740x2-1140x$.
Critical Thinking Assignment 1:	A restaurant in Hollywood produced 30 pounds of garbage in 1-1/3 days. How many pounds of garbage do they produce in two weeks?
Critical Thinking Assignment 2:	An NBA basketball court has a length that is 44 ft longer than the width. (a) Write an expression for the perimeter and area the NBA court described above. (b) Find the perimeter and area of the NBA court given a width of 50 ft.

Other Evaluation Methods:	Homework Problems, Objective Exam, Quizzes
If Other:	
Instructional Methods:	Demonstration, Discussion, Group Activities, Lecture, Multimedia presentations
If other:	
Work Outside of Class:	Answer questions, Problem solving activity, Skill practice, Study
If Other:	
Up-To-Date Representative Texts:	Teacher-generated materials
Alternative Texts:	
Required Supplementary Readings:	
Other Required Materials:	
Requisite	
Category	
Requisite course:	
Requisite and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s).	
Requisite Skill:	
Requisite Skill and Matching skill(s): Bold the requisite skill(s). if applicable	
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Enrollment Limitations and Category:	

Enrollment Limitations Impact:	
Course Created by:	Matthew Kline
Date:	04/29/2024
Original Board Approval Date:	04/28/2025
Effective Term:	FA 2026