



El Camino College
COURSE OUTLINE OF RECORD – Official

Subject:	PASS
Course Number:	537
Descriptive Title:	Fundamental Math Skills
Division:	Library and Learning Resources
Department:	Pathways to Academic Success
Course Disciplines:	Academic Strategies, Mathematics
Catalog Description:	This noncredit course introduces students to fundamental arithmetic skills needed for success in school, work, and daily life. Topics include operations with whole numbers, fractions, decimals, and percentages, as well as an introduction to signed numbers. The course is designed for adults seeking to build or review essential math skills. Instruction emphasizes understanding concepts, developing problem-solving strategies, and applying math to real-life situations. This supportive course is intended to prepare students for further study and increase their confidence in using mathematics.
Prerequisite:	
Co-requisite:	
Recommended Preparation:	
Enrollment Limitation:	
Hours Lecture (per week):	1.7 to 3.5
Hours Laboratory (per week):	0
Outside Study Hours:	3.5 to 7.1
Total Course Hours:	32 to 64
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:	
CalGETC:	
Term:	
Other:	
Student Learning Outcomes:	Upon completion of the course, students will be able to: 1. perform arithmetic operations with whole numbers, fractions, decimals, and percentages to solve routine mathematical problems. 2. apply mathematical reasoning to real-life situations, such as calculating totals, comparing quantities, and interpreting numerical information. 3. demonstrate confidence and accuracy in using fundamental math skills as preparation for more advanced coursework or practical applications.
Course Objectives:	1. Add, subtract, multiply, and divide whole numbers with and without regrouping. 2. Identify place value and apply it when working with whole numbers and decimals. 3. Simplify, compare, and perform operations with fractions, including mixed numbers. 4. Convert between fractions, decimals, and percentages to solve practical problems. 5. Apply order of operations when solving multi-step arithmetic problems. 6. Solve basic problems involving signed numbers in real-world contexts. 7. Apply math skills to everyday applications such as budgeting, shopping, and measurement.
Major Topics:	I. Whole Numbers (lecture) A. Place value and number sense B. Operations: addition, subtraction, multiplication, and division II. Fractions (lecture) A. Simplifying and comparing fractions B. Operations with fractions and mixed numbers III. Decimals (lecture) A. Reading, writing, and comparing decimals B. Operations with decimals IV. Percentages (lecture) A. Converting between fractions, decimals, and percentages B. Solving percentage problems (e.g., discounts, tax, and tips) V. Introduction to Signed Numbers (lecture) A. Understanding positive and negative numbers B. Addition and subtraction of signed numbers VI. Problem Solving and Applications (lecture) A. Applying math to everyday situations (budgeting, shopping, measurement) B. Multi-step word problems using fractions, decimals, and percentages

Total Lecture Hours:	32 to 64
Total Laboratory Hours:	0
Total Hours:	32 to 64
A.1. Primary Methods of Evaluation (Part 1 - CCN courses only):	
Primary Method of Evaluation:	3) Skills demonstration
Typical Assignment Using Primary Method of Evaluation:	Working with Fractions 1. Write $\frac{3}{4}$ as a decimal and as a percentage. 2. Add: $\frac{2}{3} + \frac{1}{4}$ 3. Subtract: $1\frac{1}{2} - \frac{3}{4}$ 4. A recipe calls for $2\frac{1}{2}$ cups of flour, but you want to make half the recipe. How much flour will you need?
Critical Thinking Assignment 1:	Grocery Budgeting with Decimals and Percentages You have \$50 to spend at the grocery store. The items you want to buy are: • Bread: \$2.49 • Milk: \$3.59 • Chicken: \$12.75 • Apples: \$4.25 • Rice: \$8.99 1. Add the total cost of all items. 2. If the store has a 10% discount on chicken, recalculate the total. 3. Do you have enough money to buy everything? If not, which item(s) could you leave out to stay under \$50?
Critical Thinking Assignment 2:	Signed Numbers in Real Life The temperature in the morning was 6 degrees. By the afternoon it dropped 12 degrees. 1. Write the afternoon temperature as a signed number. 2. If the temperature rises 5 degrees in the evening, what is the new temperature? 3. Write a short explanation of how you used signed numbers to find your answer.
Other Evaluation Methods:	Homework Problems, Multiple Choice, 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:	Lippman, David. <i>Arithmetic for College Students</i> . Creative Commons Attribution license. Open Text. (CC BY) accessed online, 2025 (readily available).
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	
Requisite course:	
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Requisite Skill and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s). if applicable	
Enrollment Limitations and Category:	
Enrollment Limitations Impact:	
Course Created by:	Matthew Kline
Date:	09/04/2025
Original Board Approval Date:	12/16/2025
Effective Term:	FA 2026