

**Course Code:** MAT 059

**Course Title:** Enhanced Pre-Algebra Skills

**Department:** Mathematics

**Effective Date:** Summer 2026

**PCS Code:** 1.4 - Remedial Education

**CIP Code:** 32.0104

**Repeatability:** 0

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## Credit Hours

**Catalog Notation:** 5-0-5

**Credit Hour Distribution:**

Lecture: 5

Lab: 0

Clinical: 0

**Total: 5**

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## General Course Information

### Catalog Description

Extended review of pre-requisite skills, signed numbers, order of operations, word phrases, basic word problems, equations, area, perimeter, formulas, ratio, proportion, percent, conversion of units, basic exponent laws.

### General Course Objectives

Students will develop numeracy and algebraic skills in whole numbers, integers, decimals, and fractions. Students will compute and apply ratios, proportions, percentages, and conversions factors to real life problems.

### Minimum Placement Levels

English	Reading	Math
None	None	Placement into MAT 059

### Prerequisites

None

### Methods of Evaluation

4-5 exams, 8-30 quizzes and/or assignments, and a cumulative final exam.

### Instructional Materials and Additional Supplies

ALEKS 360 Inclusive Access Online Access (18 weeks) for Prealgebra, Miller/O'Neill/Hyde; PreAlgebra; 3rd edition. ISBN 978-1-2642-4122-4 - Online Content with e-book

MAT 059 and 060 Course Packet, Cost \$10-\$12.

Sharp model EL 501X scientific calculator; \$9.99.

## Course Content

### General Learning Outcomes (GLOs)

- Reasoning and Inquiry: Students will demonstrate the ability to solve problems using deductive reasoning and logic, quantitative reasoning, or the scientific method.

### Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Arithmetic Review	1. Perform calculations involving addition, subtraction, multiplication, and division of whole numbers.	5	0	0
Whole Numbers and Whole Number Concepts	1. Apply rounding rules to whole numbers. 2. Identify and make use of the properties of whole numbers. 3. Interpret and solve application problems.	2	0	0
Signed Numbers	1. Transfer signed numbers to the number line. 2. Perform the four basic operations with signed numbers and use the correct order of operations. 3. Simplify signed number expressions that include exponents. 4. Evaluate algebraic expressions involving signed numbers.	9	0	0
Simplifying Algebraic Expressions and Solving Linear Equations	1. Simplify algebraic expressions and write algebraic phrases. 2. Solve algebraic equations involving more than one property. 3. Set up and solve basic word problems.	4	0	0
Fractions and Mixed Numbers	1. Perform basic operations involving fractions and mixed numbers as well as interpret and solve application problems involving fractions. 2. Solve algebraic equations involving fractions.	14	0	0
Decimals	1. Perform basic operations involving decimals including exponents and roots. 2. Convert from fractions to decimals and vice versa. 3. Interpret and solve application problems involving decimals. 4. Solve algebraic equations involving decimals.	6	0	0
Geometry	1. Identify shapes of geometric objects. 2. State the formulas for perimeter, area, and volume of geometric objects. 3. Calculate the perimeter and area of a compound figure. 4. Measure real life objects and compare those measurements to those obtained using the appropriate formula.	5	0	0
Statistics	1. Calculate the mean, median, mode, and range of a given set of data. 2. Calculate GPA.	2	0	0
Ratios, Rates, and Proportions	1. Use the concepts of ratios, rates, and proportions. 2. Interpret and solve word problems using proportions.	4	0	0
Percents	1. Convert percentages to fractions and/or decimals and vice versa, and solve application problems involving percentages.	7	0	0
Measurement	1. Convert between the English and the metric system of measurement. 2. Solve application problems in the English and the metric system.	8	0	0
Reviews and Exams	1. Earn at least a 70% on each exam, including the cumulative final exam.	9	0	0

#### Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
75	0	0