



Concept Guide to Foundational MAT 051 thru MAT 053 and MAT 055 thru MAT057 Course Series

The following information is provided to help you understand what concepts are covered in the 1-credit, 5-week developmental mathematics course(s). These concepts are foundational for college-level mathematics courses.

MAT051 Number Sense I (1 credit) **covers the following:**

- Place Value, Rounding, and Graphing Integers on a Number Line
- Four operations using the Order of Operations on Integers
- Factors, Multiples, Roots
- Perimeter, Area, Volume

MAT052 Number Sense II (1 credit) **covers the following:**

- Graphing Fractions and Decimals on a Number Line
- Comparing Equivalent Fractions
- Addition and Subtraction of Fractions and Decimals
- Converting Fractions to Decimals and Decimals to Fractions

MAT053 Multiplicative and Proportional Reasoning (1 credit) **covers the following:**

- Fraction Multiplication using "Copies of" language
- Fraction Division as Fair Sharing or Number of Copies of
- Multiplication and Division of Decimals
- Similarity using Proportional Reasoning

MAT055 Algebraic Structures (1 credit) **covers the following:**

- Defining and Working with Variables
- Distribution Property and Combining Like Terms
- Construction and Deconstruction of Equations and Inequalities
- Single Variable Solving of Equations and Inequalities

MAT056 Functions I (1 credit) **covers the following:**

- Co-Variation of Two Variables
- Visualizing Continuous and Discrete Data
- Utilizing four different Function Representations
- Graphically Evaluating and Solving Functions using Function Notation

MAT057 Functions II (1 credit) **covers the following:**

- Calculating "Changes in" Two Quantities
- Rate of Change and Constant Rate of Change
- Equations of Linear Functions Algebraically and Graphically Evaluating and Solving Linear Functions

