

**J. Sargeant Reynolds Community College
Course Content Summary**

Course Prefix and Number: MTH 2

Credits: 4

Course Title: Arithmetic

Course Description (including lecture hours, lab hours, total contacts)

Covers arithmetic principles and computations including whole numbers, fractions, decimals, percents, measurement, graph interpretation, geometric forms, and applications and some pre-algebra topics. Develops the mathematical proficiency necessary for selected curriculum entrance. Credits are not applicable toward graduation. Lecture 4 hours per week.

General Course Purpose

MTH 2 is the most basic mathematics course offered at JSRCC. In order to begin with a higher level mathematics course students must provide documentation in keeping with Policy 2-12, Placement Testing and Developmental Course Recommendations. Most students will need to take the Mathematics Placement Test in one of the Testing Centers to attempt to place into a higher level course.

Upon successful completion of MTH 2, students will take either MTH 3 or MTH 120 depending on the requirements of their curriculum.

The College Placement Policy requires that students successfully complete recommended developmental courses before entry into higher level courses. It is hoped (and students should set this goal) that students will complete MTH 2 successfully in one semester. However, a second enrollment is permitted under the college placement policy, and a third enrollment may be allowed with permission from the school dean.

Course Prerequisites/Corequisites (*Entry-level competencies **required** for enrollment*)

Prerequisite is a Level 1 on the Compass Placement Test.

Course Objectives (Each item should complete the following sentence.)

Upon completing the course, the student will be able to:

- a. Determine and use basic operations involving whole numbers.
- b. Evaluate and simplify introductory algebraic expressions using the order of operations.
- c. Perform indicated arithmetic operations with integers.
- d. Solve variable equations and use appropriate formulas to solve word problems.
- e. Add, subtract, multiply, and divide fractions and write answers in lowest terms.
- f. Solve linear expressions containing fractions.
- g. Analyze the relationship between fractions and decimals and simplify expressions involving combinations of operations on decimals.
- h. Solve equations containing decimals.
- i. Read statistical graphs and graph given linear equations.
- j. Find the average, median and mode of a given set of numbers.
- k. Write ratios as fractions in lowest terms and solve proportions involving systems of measurements.
- l. Write percents as fractions and as decimals and vice versa.

- m. Solve problems relating to interest rates, sales tax, discounts, and other real-life situations by writing percent equations.

Major Topics to be Included

- Whole Numbers
- Integers
- Solving Equations and Problem Solving
- Fractions
- Decimals
- Ratio, Proportion, and Triangle Applications
- Percent
- Graphing and Introduction to Statistics
- Geometry and Measurement

Effective Date of Course Content Summary (Month, Date Year): August 16, 2007