

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

Course Prefix and Number: MTH 151

Credits: 3

Course Title: Mathematics for the Liberal Arts I

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

Presents topics in sets, logic, numeration systems, geometric systems, and elementary computer concepts. Lecture 3 hours per week.

General Course Purpose

Covers an assortment of mathematical topics, many of which are not taught within the traditional sequence of algebra, geometry, and trigonometry.

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

Prerequisites: a placement recommendation for MTH 151 and Algebra I, Algebra II, and Geometry or equivalent.

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

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

- a. Use vocabulary of sets and use Venn diagrams to count.
- b. Use symbolic logic to test validity of arguments.
- c. Convert from one number base to another.
- d. Simplify expressions containing operations on rational numbers.
- e. Solve problems involving real numbers.
- f. Add and multiply numbers in modular systems.
- g. Use essential elements of geometry to apply a formula.
- h. Describe operations associated with computer use.

Major Topics to be Included

- a. Sets
- b. Logic
- c. Numeration and mathematical systems
- d. Number theory (designated as review material)
- e. The real number system
- f. Geometry (designated as review material)
- g. Computers

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