J. Sargeant Reynolds Community College
Course Content Summary

Course Prefix and Number: MTH 120   **Credits:** 3

Course Title: Introduction to Mathematics

Course Description (including lecture hours, lab hours, total contacts)
Introduces number systems, logic, basic algebra, and descriptive statistics. Prerequisite: placement recommendation for MTH 1220 or MTH 2 or equivalent. (Intended for occupational/technical programs.) Lecture 3 hours per week.

General Course Purpose
This course is intended for occupational/technical programs to introduce students to basic areas of mathematics.

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

Prerequisites: placement recommendation for MTH 120 and MTH 2 or equivalent.

Course Objectives (Each item should complete the following sentence.)
Upon completing the course, the student will be able to:
   a. Use symbolic logic to write word statements.
   b. Construct truth tables for compound statements.
   c. Determine whether an argument is valid.
   d. Compute and use measures of central tendency to describe a data set.
   e. Compute and use measures of dispersion to describe a data set.
   f. Construct frequency tables and histograms for a given set of data.
   g. Use the Empirical Rule
   h. Convert decimal numbers to binary, octal, or hexadecimal equivalents.
   i. Convert binary, octal, or hexadecimal numbers to decimal equivalents.
   j. Perform addition, subtraction, and multiplication of binary numbers.
   k. Convert binary numbers to octal or hexadecimal equivalents.
   l. Convert octal or hexadecimal numbers to binary equivalents.
   m. Solve linear equations and inequalities in one variable.
   n. Graph linear equations and inequalities in two variables.
   o. Understand the slope of a line.
   p. Find markups given certain information.
   q. Find markdowns given certain information.
   r. Compute simple and compound interest.
   s. Find rates, charges, and monthly payments for installment plans.
   t. Find monthly payments for different types of mortgages.

Major Topics to be Included
   a. Logic
   b. Systems of Numeration
   c. Introduction to Algebra
   d. Consumer Mathematics
   e. Statistics

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