

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

Course Prefix and Number: MTH 126

Credits: 3

Course Title: Mathematics for Allied Health

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

Presents topics in scientific notation, precision and accuracy, decimals and percents, ratio and proportion, variation, simple equations, techniques of graphing, use of charts and tables, logarithms, and the metric system. Lecture 3 hours per week.

General Course Purpose

Mathematics for Allied Health will focus on the calculation of medications. The course is designed to enable the student to calculate drug dosages using ratios and proportions. It also focuses on developing the skills to solve math problems using the metric and household systems of measurement. Students will become familiar with medical abbreviations and select the appropriate equipment to administer medications. Additional topics needed for science classes are included.

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

Students need a placement recommendation for MTH 126 and one unit of high school mathematics or equivalent.

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

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

- a. Convert within and among the metric and household systems of measurement.
- b. Utilize math skills and apply problem-solving methods to calculate dosages accurately for the administration of medications using ratios and proportions.
- c. Identify commonly used medical abbreviations and select the appropriate equipment for dispensing the medication.
- d. Solve problems involving scientific notation, variation and logarithms.
- e. Read and construct charts and graphs.

Major Topics to be Included

- a. Metric and household systems of measurement
- b. Ratios and proportions
- c. Calculating dosages of medicines – one-step and two-step problems
- d. Calculating dosages with medications that need to be reconstituted from powders and crystal
- e. Measuring dosages of insulin and anticoagulants
- f. Calculations required for pediatric medications
- g. Scientific notation
- h. Variation
- i. Techniques of graphing
- j. Introduction to logarithms

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