J. Sargeant Reynolds Community College
Course Content Summary

Course Prefix and Number: MTE 2 **Credits:** 1

Course Title: Operations with Positive Decimals and Percents

Course Description: Includes operations and problem solving with positive decimals and percents. Emphasizes applications and includes U.S. customary and metric units of measure. Credits not applicable toward graduation. Prerequisite: Placement recommendation or MTE 1. Lecture 4 hours per week for ¼ semester.

General Course Purpose: This course is designed to provide understanding and practice in decimals and operations on decimals, to provide understanding and practice using percents and units of measurement.

Course Prerequisites and Co-requisites:
Prerequisite: Placement recommendation or MTE 1

Student Learning Outcomes:
Upon completing the course, the student will be able to:
a. Convert decimals between standard notation and word notation;
b. Identify place values in decimals;
c. Add and subtract decimals;
d. Multiply decimals;
e. Divide decimals;
f. Simplify expressions using order of operations;
g. Round decimals to a specific place value;
h. Estimate sums, differences, products, and quotients with decimals;
i. Write parts of a whole using percent notation;
j. Convert among fractions, decimals, and percents;
k. Order a list of fractions and decimals from smallest to largest;
l. Calculate all values in the basic percent problem;
m. Calculate percent increase and percent decrease;
n. Calculate sales tax and commission;
o. Calculate simple interest;
p. Read and interpret information from a pie graph;
q. Calculate the percentage denoted by a pie graph;
r. Read and interpret information from a bar graph;
s. Read and interpret information from a line graph;
t. Convert within the U.S. system;
u. Convert within the metric system;
v. Convert between U.S. and metric units using conversion tables;
w. Convert units of time;
x. Convert between Fahrenheit and Celsius temperatures; and
y. Solve application problems using U.S. and metric units of measurement.

Major Topics to Be Included:

a. The meaning of decimal numbers
b. Operations with decimals
c. Estimating decimals
d. Relationship among fractions, decimals, and percents
e. Basic percent problems
f. Basic graphs
g. Units of measurement

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