

NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY
MTE 2 - OPERATIONS WITH POSITIVE DECIMALS AND PERCENTS (1 CR.)

Course Description

Includes operations and problem solving with positive decimals and percents. Emphasizes applications and includes U. S. customary and metric units of measure. Credit is not applicable toward graduation. Lecture 1 hour per week.

General Course Purpose

The purpose of this course is to develop competency in operations and problem solving with positive decimals and percents necessary to succeed in 100-level math courses.

Course Prerequisites/Co-requisites

Prerequisite: MTE 1 or qualifying placement score

Course Objectives

Upon completing the course, students will be able to:

- 2.1 Demonstrate the meaning of decimal numbers.**
 - 2.1.1 Convert decimals between standard notation and word notation.
 - 2.1.2 Identify place values in decimals.
- 2.2 Perform operations with decimals.**
 - 2.2.1 Add and Subtract decimals.
 - 2.2.2 Multiply decimals.
 - 2.2.3 Divide decimals.
 - 2.2.4 Simplify expressions using order of operations.
- 2.3 Estimate decimals.**
 - 2.3.1 Round decimals to a specific place value.
 - 2.3.2 Estimate sums, differences, products, and quotients with decimals.
- 2.4 Demonstrate the relationship among fractions, decimals, and percents.**
 - 2.4.1 Write parts of a whole using percent notation.
 - 2.4.2 Convert among fractions, decimals and percents.
 - 2.4.3 Order a list of fractions and decimals from smallest to largest.
- 2.5 Solve basic percent problems.**
 - 2.5.1 Calculate all values in the basic percent problem (percent, amount /part, and base).
 - 2.5.2 Calculate percent increase and percent decrease.
 - 2.5.3 Calculate sales tax and commission.
 - 2.5.4 Calculate simple interest.
- 2.6 Read and interpret basic graphs.**
 - 2.6.1 Read and interpret information from a pie graph.
 - 2.6.2 Calculate the percentage denoted by a pie graph.
 - 2.6.3 Read and interpret information from a bar graph.
 - 2.6.4 Read and interpret information from a line graph.
- 2.7 Convert units of measure.**
 - 2.7.1 Convert within the U.S. system.
 - 2.7.2 Convert within the metric system.
 - 2.7.3 Convert between U.S. and metric units using conversion tables.
 - 2.7.4 Convert units of time.
 - 2.7.5 Convert between Fahrenheit and Celsius temperatures.
- 2.8 Solve application problems using U.S. customary and metric units of measurement.**

Major Topics to be Included

- 2.1 Demonstrate the meaning of decimal numbers.
- 2.2 Perform operations with decimals.
- 2.3 Estimate decimals.
- 2.4 Demonstrate the relationship among fractions, decimals, and percents.
- 2.5 Solve basic percent problems.
- 2.6 Read and interpret basic graphs.
- 2.7 Convert units of measure.
- 2.8 Solve application problems using U.S. customary and metric units of measurement.