MATH C001N: MATHEMATICS FOR THE WORKFORCE 1

Item	Value
Curriculum Committee Approval Date	02/23/2024
Top Code	170200 - Mathematics Skills
Units	0 Total Units
Hours	36 Total Hours (Lecture Hours 36)
Total Outside of Class Hours	0
Course Credit Status	Noncredit (N)
Material Fee	No
Basic Skills	Basic Skills (B)
Repeatable	Yes; Repeat Limit 99
Grading Policy	P/NP/SP Non-Credit (D)

Course Description

MATH C001N is for students who seek to improve or refresh their mathematics reasoning and developmental computation skills for the workforce. Topics include study skills, affective domain, operations in arithmetic with whole numbers , fractions, decimal numbers, and conversions among fractions, decimals, and percents. Noncredit. NOT DEGREE APPLICABLE. Not Transferable.

Course Level Student Learning Outcome(s)

1. Demonstrate numerical literacy and quantitative reasoning skills in arithmetic.

Course Objectives

- 1. Build mathematics basic skills for greater success in their next math course.
- 2. Demonstrate improved numerical literacy and quantitative reasoning skills necessary for future progression in math courses.
- 3. Perform problem solving in arithmetic and its application problems.

Lecture Content

Module 1: Whole Numbers Operations Addition Subtraction Multiplication Division Order of Operations Long Division Module 2: Integers Operations Addition Subtraction Multiplication Division Order of Operations Module 3: Rational Numbers Operations Addition Subtraction Multiplication Division Order of Operations Module 4: Fractions, Decimals Operations Addition Subtraction Multiplication Division Order of Operations Conversions between Fractions and Decimals Module 5: Affective Domains, Study Skills, and Tips for Taking Math Tests

Method(s) of Instruction

- Enhanced NC Lect (NC1)
- Online Enhanced NC Lect (NC5)
- Live Online Enhanced NC Lect (NC9)
- DE Delayed Enhanced NC Lect (NCD)

Instructional Techniques

All the methods of instruction use the following technologies: Computer, math software, calculator, videos, and PowerPoint Presentations.

Reading Assignments

Reading a textbook and supplementary OER materials

Writing Assignments

Observe real-world problems and translate into mathematical notations and symbols. Practice with homework exercises and quizzes.

Out-of-class Assignments

Reading texts, practicing with homework exercises, and taking online quizzes Written assignments

Demonstration of Critical Thinking

Apply mathematics concepts, choose specific formulas to solve real world application problems, and explain the reasoning to present the results on the quizzes and final exam. Written assignments include a variety of problems to reinforce the understanding and achievement of all SLOs. Quizzes will be multiple-choice or free-response; content will be from a recent lecture, reading assignment, or homework assignment. Final examination will be free-response, open-ended, show your work for partial credit. Objective Examination may be separate assessment or part of an exam, will cover any of the SLOs. Apply mathematics concepts to solve real world application problems, explain the reasoning, and present the results.

Required Writing, Problem Solving, Skills Demonstration

Included as homework assignments, classroom discussions, quizzes, and final examination. Students are required to explain solutions and justify reasoning verbally on their writing, that can be included in classroom discussions. Students must select the correct math formulas, follow the order of operations to solve the problems and write out the final solutions through homework assignments, quizzes, or final examination, where students demonstrate their mastery of the learning objectives and their ability to devise, organize and present complete solutions to problems.

Eligible Disciplines

Mathematics: Masters degree in mathematics or applied mathematics OR bachelors degree in either of the above AND masters degree in statistics, physics, or mathematics education OR the equivalent. Masters degree required.

Textbooks Resources

1. Required Marecek, L.; Anthony-Smith, M.; Mathis, A.H. Prealgebra, 2nd ed. Houston: OpenStax Rice University, 2020

Other Resources

1. OER textbooks, files, and other free resources 2. Coastline Library