MATH C099: SUPPORT FOR LIBERAL ARTS MATHEMATICS

Item	Value
Curriculum Committee Approval Date	10/27/2023
Top Code	170100 - Mathematics, General
Units	2 Total Units
Hours	36 Total Hours (Lecture Hours 36)
Total Outside of Class Hours	0
Course Credit Status	Credit: Support Course - Non-Degree Applicable (S)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Pass/No Pass (B)

Course Description

A concurrent support course for MATH C100, Liberal Arts Mathematics, designed to review prerequisite skills necessary for success. Topics include operations with real numbers; conversion between decimals, percents, and fractions; selected algebraic topics essential to Liberal Arts Mathematics; the graph of a line; and problem-solving strategies. COREQUISITE: MATH C100. NOT DEGREE APPLICABLE. Not Transferable.

Course Level Student Learning Outcome(s)

1. Solve scenario-based problems involving linear graphing, numerical conversion, and basic statistical measures.

Course Objectives

- 1. Address the affective domain of learning in order to provide skills necessary to be successful in a transfer-level math course.
- 2. Perform operations with real numbers.
- 3. Convert between decimal, percent, and fraction.
- 4. Evaluate algebraic expressions.
- 5. Solve linear equations and systems of equations.
- 6. Graph linear equations and inequalities.
- 7. Solve word problems related to statistics.

Lecture Content

Learning skills Study skills Time management Math anxiety Test-taking skills Affective domain Operations with Real numbers Rounding Addition, subtraction, multiplication, and division of real numbers Order of operations Computations with a calculator Percents Percents as decimals and fractions Selected algebraic topics Evaluating algebraic expressions Solving linear equations Solving systems of two linear equations in two variables Introduction to graphing lines The Cartesian coordinate system Finding intercepts and slopes of lines Graphing linear equations Interpreting the graph of a linear equation Graphing linear inequalities in two variables Skills for solving word problems in statistics Identify the question to be answered Setting up appropriate notation Setting up an appropriate equation/inequality Clearly communicating the correct answer

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)
- DE Online Lecture (02X)

Instructional Techniques

The instructor shall deliver lectures of course content; assign homework and quizzes; deal with math anxiety by establishing a friendly, student-centered learning environment; relate material in the course to real life and the outside world; involve active learning; and require participation and regular, substantive interaction (RSI), including student-to-student and student-to-instructor interaction through the use of individual, small-group and whole-class discussion; apply and include technology to increase motivation such as graphing calculators, the Internet, and computer software; and include appropriate methods of summative assessment including midterm and final exams.

Reading Assignments

1 hour/week Textbook chapters and supplements

Writing Assignments

1 hour/week Short-answer questions. Essay questions. Group and/or individual projects

Out-of-class Assignments

2 hours/week Practice problem sets requiring application of course material Preparation assignments that require students to answer and discuss in the next class meeting

Demonstration of Critical Thinking

Group work, quizzes or written tests, and application of skills in support of Liberal Arts Mathematics

Required Writing, Problem Solving, Skills Demonstration

Group work, quizzes, or written tests

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 Bennet, J.; Briggs, W. Using Understanding Mathematics, 7th ed. Pearson, 2019

Other Resources

1. Coastline Library