SYLLABUS
PART I
EDISON STATE COMMUNITY COLLEGE
MTH 120P SUPPORTED QUANTITATIVE REASONING
4 CREDIT HOURS

COURSE DESCRIPTION
Supported quantitative reasoning course **s**upplemented with basic math skills necessary to complete the course for non-STEMM majors designed to acquaint students with the nature of mathematics and problem solving using logical reasoning skills. Prerequisite: Satisfactory math assessment score, or grade of "C" or better in MTH 093D. Lab fee.

COURSE GOALS

The student will:

Bloom's Level		Gen Ed Outcomes
3	1. Use proper order of operations necessary to evaluate equations.	1, 3
3	2. Round decimal values to a specified place value based on proper rounding rules.	1, 3
2	3. Add, subtract, multiply, and divide fractions, decimals, and percentages in context of the applications.	1, 3
2	4. Convert between fractions, decimal values, and percentages.	1, 3
2	5. Interpret slope as a constant rate of change in context of the applications.	1, 3
4	6. Formulate linear equations in context of the applications.	1, 3
3	7. Develop critical reading skills required for proper evaluation of information given in word problems rooted in real-world applications.	1, 3
3	8. Develop mathematical experience imperative to grasping complex mathematical concepts.	1, 3
2	9. Interpret mathematical information presented in various forms; for example, equations, graphs, diagrams, tables, and words.	1, 3
2	10. Convert information, such as equations, graphs, diagrams, tables, and words from one mathematical form to another.	1, 3
2	11. Perform arithmetical and mathematical calculations.	1, 3
3	12. Develop and evaluate important assumptions in estimation, modeling, and data analysis.	1, 3
4	13. Explain thoughts and processes in terms of what evidence is used, how it is organized, presented, and contextualized.	1, 3
4	14. Employ critical thinking skills, drawing upon prior knowledge, when possible, to analyze and explore new and unfamiliar problems.	1, 3
2	15. Interpret percentages, fractions, and ratios as appropriate probabilities within a real-world context.	1
4	16. Analyze a published study to determine validity of statistical details provided.	1
4	17. Analyze and interpret data, including calculating numerical summaries and constructing graphical representations, to propose possible implications.	1, 3, 5
1	18. Identify whether data or a scenario describes linear and exponential growth.	1
4	19. Analyze data found in a published article, determining model and type of	1, 5

	trend, making predictions, and clearly communicating the method used.	
3	20. Develop financial literacy by means of various applications involving credit card offers, car and student loans, home mortgages, amortization charts, etc.	1, 3

CORE VALUES

The Core Values are a set of principles that guide in creating educational programs and environments at Edison State Community College. They include communication, ethics, critical thinking, human diversity, inquiry/respect for learning, and interpersonal skills/teamwork. The goals, objectives, and activities in this course will introduce/reinforce those Core Values whenever appropriate.

TOPIC OUTLINE

1. Order of Operations
2. Rounding Rules
3. Fractions
4. Linear Equations and Slope in One and Two Variables
5. Mathematical Problem Solving
6. Critical Reading and Comprehension
7. Probability and Statistics
8. Growth Models
9. Finance