

SYLLABUS  
PART I  
EDISON STATE COMMUNITY COLLEGE  
MTH 120S QUANTITATIVE REASONING  
3 CREDIT HOURS

**COURSE DESCRIPTION**

Math 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 a grade of “C” or better in MTH 093D. Lab fee.

**COURSE GOALS**

The student will:

Bloom's Level		Gen Ed Outcomes
2	1. Interpret mathematical information presented in various forms; for example, equations, graphs, diagrams, tables, words.	1, 3
2	2. Convert information, such as equations, graphs, diagrams, tables, and words, from one mathematical form to another.	1, 3
2	3. Perform arithmetical and mathematical calculations.	1, 3
3	4. Develop and evaluate important assumptions in estimation, modeling, and data analysis.	1, 3
4	5. Explain thoughts and processes in terms of what evidence is used, how it is organized, presented, and contextualized.	1, 3
4	6. Employ critical thinking skills, drawing upon prior knowledge when possible, to analyze and explore new and unfamiliar problems.	1, 3
2	7. Interpret percentages, fractions, and ratios as appropriate probabilities within a real world context.	1
4	8. Analyze a published study to determine validity of statistical details provided.	1
4	9. Analyze and interpret data, including calculating numerical summaries and constructing graphical representations, to propose possible implications.	1, 3, 5
1	10. Identify whether data or a scenario describes linear and exponential growth.	1
4	11. Analyze data found in a published article, determining model and type of trend, making predictions, and clearly communicating the method used.	1, 5
3	12. 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. 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. Mathematical Problem Solving
2. Critical Reading and Comprehension
3. Probability and Statistics
4. Growth Models
5. Finance