

Math 120 Quantitative Literacy**Credit Hours:** 3**Scheduled hours per week**

Lecture: 3

Lab: 0

Other: 0

Catalog Course Description: A mathematics survey course. Topics will include logic, problem solving, quantitative information in everyday life, probability, statistics, and mathematical modeling.**Pre-requisites:** Students must score 19 or above on ACT or score 3 or above on the High School Summative Exam to enroll in this course.**Co-requisites:** Students who score below 19 on ACT or score a 1 or 2 on the High School Summative Exam must take the co-requisite course Math 120E.**Course Learning Outcomes:**

- A. Students will demonstrate the ability to use multiple problem solving techniques.
- B. Students will demonstrate understanding of fundamental logic principles.
- C. Students will demonstrate the ability to understand quantitative information in everyday situations.
- D. Students will demonstrate understanding of mathematics of finances.
- E. Students will demonstrate understanding of counting principles and probability.
- F. Students will demonstrate understanding of basic statistic concepts.
- G. Students will demonstrate ability to build mathematical models.

Topics to be studied:

mathematical modeling and problem solving
probability – odds for and against, law of large numbers, and counting techniques
sets – notation, operations, Venn diagrams
propositions and truth tables
fractions
percentages
histograms, bar graphs, pie charts
measures of central tendency
measures of dispersion
normal distribution
managing money – compound interest and personal finances
scientific notation
correlation and causality
U.S. customary and Metric system and conversions between the two
basics of Euclidean geometry – point, line, plane, angle, polygons, polyhedrons
perimeter, area, and volume
problem solving using geometry

Relationship of Course to Program or Discipline Learning Outcomes:

(What program outcomes are being met by this course?)

For general education courses, a listing of the general education competencies that are met.)

Relationship of Course to Mathematics (MATH) Student Learning Outcomes:	
Demonstrate understanding of the language of mathematics, by their use of symbols, definitions, word phrases, and representations.	X
Display proficiency in mathematical computations.	X
Implement mathematical techniques to solve applied problems.	X
Employ appropriate technology to demonstrate knowledge of mathematical concepts.	X
Exhibit mastery of core course competencies.	X
10/20/2017	

Relationship of Course to General Education Learning Outcomes:	
Composition and Rhetoric Students illustrate a fundamental understanding of the best practices of communicating in English and meet the writing standards of their college or program-based communication requirements.	
Science & Technology Students successfully apply systematic methods of analysis to the natural and physical world, understand scientific knowledge as empirical, and refer to data as a basis for conclusions.	
Mathematics & Quantitative Skills Students effectively use quantitative techniques and the practical application of numerical, symbolic, or spatial concepts.	X
Society, Diversity, & Connections Students demonstrate understanding of and a logical ability to successfully analyze human behavior, societal and political organization, or communication.	
Human Inquiry & the Past Students interpret historical events or philosophical perspectives by identifying patterns, applying analytical reasoning, employing methods of critical inquiry, or expanding problem-solving skills.	
The Arts & Creativity Students successfully articulate and apply methods and principles of critical and creative inquiry to the production or analysis of works of art.	
5/3/2016	

Special requirements of the course: None**Additional information:** None**Prepared by:** Katie Life**Date:** 10/20/2017