

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:**

1. Students will utilize multiple problem-solving techniques.
2. Students will apply fundamental logic principles to analyze deductive arguments.
3. Students will interpret quantitative information in real-world situations.
4. Students will solve problems relating the mathematics of finance to their everyday life.
5. Students will apply counting principles and probability.
6. Students will identify basic statistics concepts.
7. Students will 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