

**Math 141 Finite Mathematics**

**Credit Hours:** 3

**Scheduled hours per week**

Lecture: 3

Lab: 0

Other: 0

**Catalog Course Description:** Logic, sets, counting principles, vectors, matrices, probability theory, linear programming, applications

**Pre-requisites:** C or better in Math 126

**Corequisites:** None

**Course learning Outcomes:**

- A. Students will demonstrate the ability to build mathematical models involving business applications and situations.
- B. Students will demonstrate understanding of matrices and basic matrix operations.
- C. Students will demonstrate the ability to use linear programming for optimization problems.
- D. Students will demonstrate understanding of combinatorics and probability.
- E. Students will demonstrate understanding of basic symbolic logic.

**Topics to be studied:**

mathematical modeling  
matrices  
linear programming  
basic counting principles  
symbolic logic probability

**Relationship of course to program outcomes:**

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

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

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

<b>Relationship of Course to General Education Learning Outcomes:</b>	
<b>Composition and Rhetoric</b> 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.	
<b>Science &amp; Technology</b> 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.	
<b>Mathematics &amp; Quantitative Skills</b> Students effectively use quantitative techniques and the practical application of numerical, symbolic, or spatial concepts.	x
<b>Society, Diversity, &amp; Connections</b> Students demonstrate understanding of and a logical ability to successfully analyze human behavior, societal and political organization, or communication.	
<b>Human Inquiry &amp; the Past</b> Students interpret historical events or philosophical perspectives by identifying patterns, applying analytical reasoning, employing methods of critical inquiry, or expanding problem-solving skills.	
<b>The Arts &amp; Creativity</b> Students successfully articulate and apply methods and principles of critical and creative inquiry to the production or analysis of works of art.	
<b>5/3/2016</b>	

**Special requirements of the course:** None

**Additional information:** None

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