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.)
### 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

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**Date:** 10/20/2017