

# MATH 103

## Finite Mathematics Winter 2017

### DESCRIPTION

This course is designed primarily for students in business, economics, management, and the social sciences and life sciences. The course covers linear equations, systems of linear equations, inequalities, linear programming, functions, the mathematics of finance, matrices, permutations, combinations and probability.

INSTRUCTOR: Dr. David Buhl

CLASS: Online: all materials accessed via <http://www.coursecompass.com>

OFFICE HRS: JXJ 2220      M: 1:00 - 2:00  
   T: 10:00 - 11:00  
   W: 1:00 - 2:00  
   TH: 1:00 - 3:00  
   or by appointment

PHONE: 227-2089

EMAIL: [dbuhl@nmu.edu](mailto:dbuhl@nmu.edu)

### LEARNING OUTCOMES:

Upon successful completion of this course, students will be able to:

- Construct, solve and interpret appropriate linear models including systems of equations and inequalities and linear programming models.
- Solve systems of linear equations and inequalities by application of a. Algebraic techniques including Gauss-Jordan/echelon method b. Graphing techniques c. Matrix techniques.
- Apply finance formulas and interpret, in context, the output.
- Answer elementary probability questions by application of a. Venn diagrams and trees b. Permutations and combinations c. Appropriate theory and rules of probability including I. Defining a sample space II. Calculating probabilities within a defined sample space III. Distinguishing between independent and dependent events.

### GRADING (Percent)

Anticipated chapters to be covered include Chapters 1 through 7 and 10. Learning outcomes will be assessed by homework, quizzes, and exams. The percentage for the class is as follows:

100 - 90 A (-)  
89 - 80 B (+ or -)  
79 - 70 C (+ or -)  
69 - 60 D (+ or -)

**Deadlines**

**There are deadlines for completing each unit. These dates are clearly stated in the course materials located at <http://www.coursecompass.com>**

## DISABILITY SERVICES

If you have a need for disability-related accommodations or services, please inform the Coordinator of Disability Services in the Disability Services Office by: coming into the office at 2001 C. B. Hedgcock; calling 227-1700; or e-mailing [disserv@nmu.edu](mailto:disserv@nmu.edu).

Reasonable and effective accommodations and services will be provided to students if requests are made in a timely manner, with appropriate documentation, in accordance with federal, state, and University guidelines.

## LIBERAL STUDIES

This course satisfies the Foundation of Natural Science/Mathematics requirement.

Students who complete this course should be able to demonstrate a basic understanding of mathematical logic; use mathematics to solve scientific or mathematical problems in college classes; express relationships in the symbolic language of mathematics; and appreciate the role of mathematics in analyzing natural phenomena.