

SYLLABUS FOR MA 103, FINITE MATHEMATICS

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Office Hours: 8:00 – 8:50 A.M., Monday through Thursday;

11:00 – 11:50 A.M., Monday, Wednesday, Thursday;

And by appointment.

Text: Finite Mathematics by Frank C. Wilson

Course Description and Overview:

This course is designed primarily for students in business and the social sciences and psychology. MA 103 builds on algebraic skills learned in MA 100 or equivalent courses. There are three main components to the course: linear programming (Chapter 4); theory of interest (Chapter 6); and probability (Chapters 7 and 8). We do not have time in this course to cover each of these topics in depth. Therefore, the course consists of a brief introduction to each of these subjects. More advanced courses cover each of these topics in greater detail.

Systems of linear equations and matrix algebra are important topics for linear programming. Students who take courses in linear programming beyond MA 103 would be expected to know a little about matrix algebra. Matrices are used in a variety of other places as well. Therefore, in our unit on linear programming, we will study matrix algebra. Here is our unit on linear programming.

Linear Programming:

Chapter 1. (brief coverage; this material is covered in MA 100).

Chapter 2, Sections 2.1 and 2.2.

Chapter 3, Sections 3.1 – 3.3.

Chapter 4, Sections 4.1 – 4.3.

Chapter 5 is a prerequisite for Chapter 6. Chapter 6 is a brief introduction to the theory of interest, which theory is important in the mathematics of finance. And so, Chapters 5 and 6 together constitute our unit on the theory of interest.

Theory of Interest:

Chapter 5, Sections 5.1 – 5.4.

Chapter 6, Sections 6.1 – 6.4.

Many students in MA 103 will eventually take a course in statistics. An understanding of statistics is founded upon an understanding of probability. Chapters 7 and 8 constitute a brief introduction to the theory of probability.

Theory of Probability:

Chapter 7, Sections 7.1 – 7.5.

Chapter 8, Sections 8.1 – 8.4.

Tentative Exam Schedule, (Fairly definite, but subject to change):

Exam 1, Tuesday, 09/12, Sections 2.1, 2.2, 3.1 – 3.3.

Exam 2, Wednesday, 09/27, Sections 4.1 – 4.3.

Exam 3, Thursday, 10/12, Sections 5.1 – 5.4, 6.1.
Exam 4, Monday, 10/30, Sections 6.2 – 6.4.
Exam 5, Tuesday, 11/14, Sections 7.1 – 7.5.
Exam 6, Wednesday, 12/06, Sections 8.1 – 8.4.

Grading: A letter grade will be given for the combined results of Exams 1 and 2. Also, a letter grade will be given for the combined results of Exams 3 and 4. A letter grade will be given for the combined results of Exams 5 and 6. The course grade will be based on an “average” of the three letter grades. The final exam period will be used as a time for recapitulating the course.

Laptop Policy: The use of laptops and other electronic devices, except for hand held calculators, will not be permitted during exams.

Note:

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 probability and statistics in analyzing natural phenomena.

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 at 2001 C.B. Hedgcock (227-1700; TTY 227-1543). 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.