Northern Michigan University

Department of Mathematics/Computer Science

Syllabus

MA103 Finite Mathematics Syllabus

Winter 2009 Section 02

latest update: 12 January 2009

URL for course info: http://Ellerbruch.nmu.edu/classes/MA103w09/MA103.html

Seq #: 10623 9:00 - 9:50 am M T W Th Room NS 1205

Prerequisite: C in MA 100 or equivalent

Instructor Information:

Instructor: L. W. Ellerbruch
Office: NSF 1109
Telephone: 227-1597
Office Hours: As posted by office door but will include:

10:00 - 11:50 am M W Th
11:00 - 11:50 am F
2:00 - 2:50 pm M
Other hours by arrangement.

Text:

Berresford, G. C. and A. M. Rockett, *Finite Mathematics, second edition*, Houghton-Mifflin Company, Boston; 2005.

MA103 Course Description

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 probability and statistics in analyzing natural phenomena.

Basic Philosophy and content for the course:

The course will be built around the rule of "four"; as much as possible, that is, every topic should be presented concretely (geometrically/visually/hands-on), numerically, abstractly (algebraically) and have an emphais on communication. In-class work, homework, exams and quizzes will utilize all four components as much as is reasonably possible. Communication is important and individuals are encouraged to talk about mathematics with other members of the class AND other students. Cheating is defined as turning in someone else's work as your own. It is not cheating to work with others. Sharing the learning and teaching is an important part of this course.

Technology is an important component of classroom instruction and learning. Students will use calculators and computers. The internet will be used as much as possible.

MA 103 will cover selected material from chapters 1 - 5, and selected topics from chapters 6 - 8 as time permits. The topics will be covered in the following order:

- Finance
- Probability
- Systems

Calculators and Technology:
The laptop is to be used appropriately in the class.

Turn off cell phones. They are not to be used during class.
A complete and up-to-date syllabus, a list of assigned exercises from the text, a list of assignments other than text exercises, and other information related directly to the class will be available from a WWW page on the instructor's WWW server.

Some aspects of the visual (geometric/graphical/concrete) component of the course will be designed around the Texas Instruments TI-83 or TI-86 graphing capabilities, computer software, or the WWW. The numerical component of the course will be designed around the TI-83's or TI-86's computation and programming capabilities, or computer programs which allow for in-class demonstrations.

A FREE TI-83 emulator is available for the laptop. This is the minimum calculator for the course. If you have access to a handheld graphing calculator, use it for the class. It will be useful for homework, in-class exercises, quizzes and exams. You are responsible for learning how to use your specific calculator, although the TI-83 emulator or another TI will be demonstrated in class.

There may be exams and quizes where the laptop may not be used or even open during the exam.

Assignments:
In-class exercises and out-of-class exercises will be assigned on a regular basis. It is expected that students will complete all assigned exercises. Some homework sets may be collected. Some homework exercises may be marked. Some homework exercises may be used as quiz items.

Reading assignments will be made, and it is very important to complete them.

There will be in-class discussion and group work. Participation is expected and may influence your grade.

You are responsible for the appropriate material in the text even if it is not covered during class time. You will be tested on material from the class, from the text, and from other sources discussed in class.

Students will be responsible for instructional material placed on the WWW for them, or assigned to them.

Attendance:
Attendance is required. Major exams may be made up only if the absence is excused prior to the absence. Daily work or quizzes may not be made up!

If a student has perfect attendance the recorded grade for that student will be raised one step on the grading scale from the computed grade, *i.e.* if the computed grade is a "C+" it will be raised to a "B-" for recording. Perfect attendance means actually attending every scheduled class session with the allowance for missing classes which are officially cancelled by university officials.

Grading:
Exams
There will be three "hourly" exams and a "final" exam. Exams may include computation, problem solving, multiple choice questions, short answer or essay responses.

Quizzes
Quizes will usually be unannounced and will usually be of very short duration. There may be a quiz any day. Likely material for the quizes will include short answer or essay questions, homework problems, or material emphasized in class. Quiz scores will NOT be a part of the final grade computation.

Points
Points are cumulative for all class activities. There will be about:

points	category
300 - 400	hourly exams
200	Final Exam

Letter Grades

The following is the guaranteed scale for **final** grades.

GRADING SCALE

% score	GRADE
93 -	A
90 - 92.99	A-
87 - 89.99	B+

83 - 86.99	B
80 - 82.99	B-
77 - 79.99	C+
73 - 76.99	C
70 - 72.99	C-
67 - 69.99	D+
63 - 66.99	D
60 - 62.99	D-
0 - 59.99	F

However, the instructor reserves the right to adjust the curve downward slightly to allow for better breaks between letter grades. There may be some opportunity for bonus points.

Final

The final exam time will be a comprehensive final exam and all students will be required to take it. The final time will be the scheduled time (from 8:00 to 9:50 am Wednesday 29 April 2009 unless there is a change or correction in the university schedule) in NS 1205.

NOTES:

All material in the course is cumulative and once covered in class, or assigned, may be used on any test or quiz.

ADA Statement

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.Ê 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.