MA-104 College Algebra with applications in the Science and Technologies (W, 06)
West Science 3607, T Th 7:00 – 8:40 pm
Course Description

Instructor: William Ellerbruch
Email: w@ellerbruch.nmu.edu or wellerbr@nmu.edu
Office: NSF 1013, Office hours will be after class, or before class by appt.
Office Phone: 227-1479, Cell Phone: 361-2455

Text: College Algebra 2nd ed., Gareth and Williams

Prerequisite: C- in MA-100 or Math Placement Recommendation

Course Content: This course will cover the chapters R-6, part of chapter 9, and some right triangle trigonometry.

General Outline:

1. Review of Algebra
2. Algebra and Geometry
3. Solving Equations and Inequalities
4. Functions
5. Exponents and Logarithms
6. Systems of Equations and Matrices
7. Introduction to Probability
8. Introduction to Right Triangle Trigonometry

Graded Materials:

Exercise	Projects	Quizzes	Tests	Exam
Number	0-3	0-5	4-6	1
Points	0-150	0-75	400-600	200

- All tests and quizzes are comprehensive, but will mainly cover the most recent material.

- Comprehensive Final Exam: Will either be the Tuesday or Thursday evening of exam week during the normal class time.

A graphing calculator or your laptop will be required on all graded materials. If the laptop is used for graded exercises in place of a calculator the screens will be watched closely and any attempt to collaborate or misuse the laptop will result in a zero on the exercise and a report of cheating filed.

Academic Expectations: I expect the average student to do about one to two hours of outside preparation for each hour of class time. Experience has shown that it is beneficial to form study groups to discuss the material and work on problems together. The **Math Lab** (WS-3810) is a special room that has been set aside as a mathematics study room. There will be a tutor there to answer questions. I will help you with problems and answer questions during class, after class, and during my office hours. You may also email or telephone me. You should do all (or most) of the assigned problems though these will not be collected. Brief answers to odd-numbered problems are in the back of the text.

Grade Cutoffs:

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
93	90	87	83	80	77	73	70	67	63	60	<60%

Attendance: Attendance is required in this course. For students who have **perfect** attendance, their final grade will be raised one half of a letter grade. You must complete all graded materials at their scheduled times. Makeups will only be allowed in the case of extreme circumstances. In such a case, you must notify me before the test/quiz/exam that you will be missing (A cell phone message is best.)

Calculators: A graphing calculator is highly recommended for this course. I recommend a Texas Instruments TI-83 or TI-84 plus calculator but any calculator will do if it has graphical and table functions, the more the calculator will do the less you will need your laptop. If you need help with your calculator, bring it and the instruction manual to my office or to the Math Lab. TI Interactive, which has been provided by the University and should be installed on your laptop, may be used instead of a calculator for homework and graded exercises. However, the laptop is much more cumbersome to use than a handheld graphing calculator. If you don't have a calculator, you will have to bring your laptop to class each day and have TI Interactive ready to use during the class period. We also may occasionally use a spreadsheet in class.

Useful Websites:
http://www.ticalc.org/
http://mathematics.brookscole.com

Further Notes: Bring your text, calculator and notebook (for your class notes and homework solutions) to every class and your laptop as needed.

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.