MA 104 College Algebra with applications in science and technologies Winter 2013

Class time: Mon., Wed. 7:00 pm - 8:40 pm
Place: WSB 3803
Instructor: Zosia Eppensteiner
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Office hours: by appointment Mon., Wed. 5 pm – 7 pm

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

Prerequisite: MA 100 (C- or better) or satisfactory score on math placement exam.

Course Overview and Objective: 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.

The following is a list of minimum outcomes for this class. Students should be able to:
1. Graph, compute with and solve problems with real numbers, solve and model using equations and inequalities.
2. Analyze and graph functions, their transformations and inverses,
3. Use multiple methods to find zeros of polynomial functions.
4. Analyze and graph rational, exponential and logarithmic functions.
5. Solve systems of equations and inequalities.
6. Define, evaluate and interpret trigonometric functions.

Course Description: The course aims to further develop students' abilities to manipulate algebraic statements and solve problems. It includes the study of functions, graphing, equation solving techniques, exponents and logarithms, systems of equations and basic trigonometry. Emphasis is placed on the application of algebra to the applied sciences.

Text: *Algebra and Trigonometry,* Ron Larson, Eighth Edition

Supplies: A graphing calculator or laptop equipped with TI-Interactive which is a program that simulates the TI-83. Notebook, graph paper, pencil and straight edge will be required.

Grading: Homework will be assigned for each class, 11 quizzes will be given, I will drop the lowest quiz and lowest homework score. There will be five tests tentatively scheduled for 2/4, 3/8, 3/29, 4/10 and 4/29. Generally, no make-ups will be given. The cumulative total for the course is 700 pts. Tests are 100 pts each, homework 10 pts each and quizzes 10 pts each. 90%—100% is an A. 80%—89% is a B, etc.

Course policies and tips: Students are expected to attend all the classes. Attendance will be taken at the beginning of the class. Excessive absence will influence your grade. Most importantly in order to succeed in this course you have to be present, focused and ready to devote time and effort into doing the math, not just observing and listening to the lecture. Take notes, ask questions and keep up with your homework. Please do not use your cell phones in class and be respectful of your fellow students. Please contact me via email with any questions or concerns.

Disabilities: 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. 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.