

## Syllabus for MA 111, College Algebra Winter 2017

**Instructor:** Qinghong Zhang

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**Office Hours:** 10:00—12:00, MTWR, and by appointments

**Class Time:** 12:00-12:50 MWRF

This course satisfies the Foundations 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.

Upon successful completion of this course, a student should be able to:

- manipulate and solve different equations including linear, quadratic, polynomial, exponential, and logarithmic equations.
- graph polynomial, rational, exponential, and logarithmic functions.
- apply exponential and logarithmic functions to real-world problems.
- solve systems of linear equations by elimination or substitution.

Evaluation of these learning outcomes will be done through assignments, tests, and exams.

**Course Description:** Algebra of real and complex numbers. Algebra of polynomials. The function concepts. Linear, quadratic, polynomial functions. Inverse functions, exponential and logarithmic functions. Polynomial, exponential and logarithmic equations. System of equations. Matrices and determinants.

**Prerequisite:** A grade of **B-** or better in MA100, or satisfactory score on the Math Placement Exam.

**Textbook:** An access to Connect Math for “College Algebra 3<sup>rd</sup> edition by John Coburn, Jeremy Coffelt,” which can be purchased on the publisher’s website or through NMU’s bookstore. A hard copy of the textbook is not required.

**Attendance:** Students are expected to attend all the classes. Attendance will be taken at the beginning of the class.

**Homework, Quizzes and Tests:** Two homework assignments will be given each week. Quizzes will be given on Fridays. There will be four tests tentatively scheduled for 02/01/17, 02/24/17, 03/24/14 and 04/14/17, and a two-hour final exam during the final exam week. I will drop the lowest test score. Each test counts 15% toward the final grade. The final exam counts 25%. Homework will be 10% of the final grade. Quizzes will be 15% toward the final grade. The remaining 5% is assigned based on your attendance. It is important to take the quizzes and exams at the scheduled time. Generally, no make-ups will be given.

**Grading:** Grading: 90%—100%, A/A-; 80%—89%, B+/B/B-; 70%-79%, C+/C/C-; 60%-69%, D+/D/D-; 0%-59%, F.

**Disability Services** If you have a need for disability-related accommodations or services, please inform the Coordinator of Disability Services in the Dean of Students Office at 2001 C. B. Hedgcock Building (227-1700 or [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.