College Algebra for Calculus Preparation
MA 111 – WINTER 14

CLASS ID: MA 111 – 1, M W R F, 1:00 – 1:50 P.M., WS 1705
MA 111 – 2, M W R F, 11:00 – 11:50 A.M., WS 3803

CALL NUMBER: 11111 & 11112
CREDITS: 4
INSTRUCTOR: Dr. Truong, Bao
New Science 1135

OFFICE HOURS: 10:00 – 11:00, 12:00 – 1:00 and 3:00 – 4:00 M W R F.
Appointments must be made via email
btruong@nmu.edu in advance; other hours available.

PREREQUISITES: MA 100 or satisfactory score on Math Placement Exam.

TEXT:

College Algebra

COURSE DESCRIPTION: This course involves the continued development of students' abilities to manipulate algebraic statements and solve problems. Topics, applications and pace are tailored for those students intending to take calculus.

Chapter 0: Prerequisites
Chapter 1: Equations and Inequalities
Chapter 2: Coordinates and Graphs
Chapter 3: Functions
Chapter 4: Polynomial and Rational Functions
Chapter 5: Exponential and Logarithmic functions
Chapter 6: Systems of Equations and Inequalities

This course satisfies the Foundation of Natural sciences/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.

LEARNING OBJECTIVES: By the end of the course students will be able to:

- recognize and avoid common algebra mistakes.
- manipulate and work successfully with functions including polynomial, rational, exponential and logarithmic functions.
- understand the characteristics of various mathematical functions (linear, exponential, logarithmic, logistic, trigonometric, quadratic, power functions).
- sketch a graph of a function based on zeros and asymptotes.

Evaluation of these learning outcomes will be done through homework assignments, quizzes and exams.
**ATTENDANCE:** Class attendance is mandatory. Although I do not have a rigid cut policy, I will take attendance most days, and anyone who has missed lots of classes and is doing poorly in the course should not expect much sympathy from me. If you do miss a class, it is your responsibility to make up the material and make sure your homework is turned in on time. For “Each day you miss, it takes one day longer to be good”.—Ben Hogan, Golfer.

**HOMEWORK:** There are two media for Homework in College Algebra.

There will be weekly online assignments administered through the online homework software WeBWorK, which is free of charge. WeBWorK problems are computational in nature and assess the techniques introduced in class. Many of these problems will resemble examples in the textbook or from class. You will get immediate feedback on your progress and will get several chances to ensure it. Webwork is accessed directly through the course’s EduCat™ website [https://educat.nmu.edu/](https://educat.nmu.edu/) or at [http://gauss.nmu.edu/webwork2/MA111](http://gauss.nmu.edu/webwork2/MA111)

There will also regular offline assignments which you need to write up on paper. These problems will require more than just procedure, might connect two or more things together, and will typically be the most difficult exercises you will work on over the semester. I will collect several offline homework assignments. The schedule for graded homework assignments and others such as extra credit assignments, projects, etc. will be determined by your instructor and will be notified in advance.

Homework should be neatly handwritten or typed. Skip a line between each problem. Copy the problem in its original form from the book; this includes word problems. Provide the solution to the problem. If you are having difficulty with a problem, make sure you get help before the due date. If you still can’t complete the problem, do as much as you can, as you may receive partial credit.

**TESTS AND QUIZZES:** There will be 9 quizzes and 3 exams in this course, plus a final exam. You will be expected to take all three exams in order to get a passing grade. Only in the event of an unavoidable emergency will a make-up test be considered. For example, you may approve out-of-sequence exams and missed quizzes in the following reasons:

1. A documented medical excuse.
2. A University sponsored event such as an athletic tournament, a play, or a musical performance.
3. A religious holiday.
4. Extreme hardship such as a family emergency.

Make-up tests will be more difficult than the original exam. You may drop the lowest quiz grade. If you are absent for a quiz, the missed quiz becomes your dropped grade.

If you require additional accommodation as determined by the Disability Service Office, please let your instructor know as soon as possible.

**FINAL EXAM:** A comprehensive final exam will be given on

- **Monday, April 28, 12:00 – 1:50** for MA 111-1 (class meeting day at 1:00 pm.)
- **Tuesday, April 29, 10:00 – 11:50** for MA111-2 (class meeting day at 11:00 am.)

**GRADES:**

<table>
<thead>
<tr>
<th>Weighted percentage:</th>
<th>Tests</th>
<th>40%</th>
<th>Quizzes</th>
<th>20%</th>
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<tbody>
<tr>
<td></td>
<td>HW &amp; Others</td>
<td>15%</td>
<td>Final</td>
<td>25%</td>
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Grading Scale (approximate)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>93% up</td>
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<tr>
<td>A–</td>
<td>90 – 92.9%</td>
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<tr>
<td>B+</td>
<td>87 – 89.9%</td>
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<tr>
<td>B</td>
<td>83 – 86.9%</td>
</tr>
<tr>
<td>C+</td>
<td>77 – 79.9%</td>
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<tr>
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<tr>
<td>D</td>
<td>60 – 66.9%</td>
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<tr>
<td>F</td>
<td>below 60%</td>
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You must get at least 80% on online Homework in order to pass this course.

**IMPORTANT DATES:**

First official day of classes - Monday, January 13, 2014

No classes on Friday, January 17, 2014

Martin Luther King Day observance – no classes – Monday, January 20, 2014

Mid-semester recess begins at 5:00 p.m. Saturday, March 1, 2014

Classes resume March 10, 2014

Last day of classes - Saturday, April 26, 2014

Friday, January 24 - Quiz 1
Friday, January 31 - Quiz 2
Friday, February 7 - Quiz 3

**Friday, February 14 – Test 1**

Friday, February 21 - Quiz 4
Friday, February 24 - Quiz 5
Friday, March 14 - Quiz 6

**Friday, March 21 – Test 2**

Friday, March 28 - Quiz 7
Friday, April 4 - Quiz 8
Friday, April 11 - Quiz 9

**Friday, April 18 – Test 3**

**EXTRA HELP:**

- **My office:** during regular office hours or by appointments.
- **Mathematics Tutor Lab:** West Science 3810. Mathematics Tutor Lab is open M–R 9:00 am – 4:00 pm and F 9:00 am – 3:00 pm.
- **All Campus Tutoring:** Learning Resource Center 111H. All Campus Tutoring is open S–W 2:00 pm – 10:00 pm.
- **Disability Service Office:** If you have a need for disability-related accommodations or service, please inform the Coordinator of Disability Service in the Disability Service Office by either coming into the office at 2001 C.S. Hedgcock, or calling 227 – 1700, 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.
**CALCULATOR:** TI Interactive graphic software can be loaded to your ThinkPad for free at the Help Desk in LRC. Many of you have probably used graphing calculators in the past and you may already have your own calculator. If you have a graphing calculator, you should bring it to class since it is much more convenient than a laptop.

**CODE OF CONDUCT:** Since every student is entitled to full participation in class without interruption, all students are expected to be in class and prepared to begin on time. If for some emergency reason you are late, you must quietly enter the classroom and find a seat at the back row. All pagers, wireless phones or other devices that make noise must be turned off when you enter the classroom. Disruption of class, whether by talking, noisy devices, eating in class or other inconsiderate behavior, will not be tolerated. **Students who violate these rules will be asked to leave the classroom and will not be allowed to return until they have spoken privately with the instructor.**

**ADDITIONAL EXPECTATIONS:** Students will arrive for every class with necessary tools: text, notebook, pencil, and calculator. Cell phones and other electronic devices will be out of sight and on silent; speak to the professor if you anticipate receiving an emergency call during class.

**OTHER NOTES:** Keeping up with the homework assignments is essential to learning Mathematics. No one is able to learn mathematics without working problems. You should expect to spend 8 – 12 hours a week working homework problems, reading the text, and going over your class notes. I urge you to work together in groups.

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**Math is Not a Spectator Sport**  
Work to Understand the Principles  
Mathematics is Cumulative

“A student who has merely done mathematical exercises but has never solved a mathematical problem may be likened to a person who has learned the moves of the chess pieces but has never played a game of chess. **The real thing in mathematics is to play the game.**”

Stephen J. Turner