MA 104 – College Algebra with Applications in the Sciences and Technologies  
Fall 2013  Course Syllabus

Class ID: MA 104  Section 55: call # 82310  Meeting Times: Online

Testing Room: WS 3602  Credits: 4

Instructor: JoAnn Buhl  
Office: NSF 1125  e-mail: jbuhl@nmu.edu

Office Hours: 12-2, M W Th. Other times are available by appointment. It is usually a good idea to drop me an e-mail or set up the appointment before or after class, just to confirm that I will be available.

Prerequisites: MA 100 or satisfactory score on the math placement exam.

Course Access: All course material and course instructions can be accessed through the EduCat website at NMU.  https://educat.nmu.edu/

Text: The online e-book  Algebra and Trigonometry, 9th Edition, by Ron Larson. We will also be using the online homework package through the company WebAssign. www.webassign.net

Course Description: Select portions of Chapters 1-9. This includes a review of basic algebra, solving equations and inequalities, functions and graphing, linear, quadratic, polynomial, and rational functions, exponential and logarithmic functions. Right triangle trigonometry will be briefly covered, along with the Laws of Sines and Cosines. The semester will end with solving systems of equations.

Attendance: You are expected to be a self-motivated learner, and are responsible for the material assigned each day. It is VERY important in this course that you keep up with the material. We move fast!

Homework: Will be assigned on a daily basis. The best way to learn mathematics is by doing it yourself, and that requires steady, consistent effort. For each hour of lecture or video, you should expect an equal amount of time spent on the homework problems. Your hard work will pay off on the tests! Homework is online. HOWEVER, I highly recommend you work out the problems with paper and pencil in a notebook. The paper notebooks will help if for some reason the computer is giving you problems on a
particular assignment. In a pinch, you can scan your notebook to prove you did the work!

**Tests and the Final:** There will be four tests. The Final will be considered the fourth test, and will cover material only since the last test.

Test Dates: Because tests are PROCTORED (someone physically verifies that you are the person taking the test) **you will need to be present on campus four times during the semester for the tests, unless you arrange for an off-site proctor (see next paragraph).** The test times are given below. If you have a conflict (work, etc.) you must let the instructor know at least 1 week in advance so that alternate testing arrangements may be made. Otherwise, a zero will be assigned for that test grade.

**Test Dates:**

Test 1  
Friday, Sept 20, 2:00-5:00 pm  
WS 3602

Test 2  
Friday, October 18, 2:00-5:00 pm  
WS 3602

Test 3  
Friday, Nov 15, 2:00-5:00 pm  
WS 3602

Test 4 (Final)  
Friday, Dec 13, 2:00-3:50 pm  
WS 3602

**Mark these dates on your calendar!** You must bring a picture ID, your laptop, a calculator, a pencil, and a single “cheat sheet” of any formulas, directions, or examples you think may be helpful. Cell phones are NOT allowed.

**Off-Site Proctors:** Because it is understood that some students taking this online class may live too far away to physically show up for the tests, proctoring arrangements can be made to take the test at an off-campus site. The student is responsible for finding a qualified proctor, and the proctor is required to fill out paperwork verifying his or her identity. **Anyone requesting an off-site proctor MUST fill out the proper paperwork within the first two weeks of class.**

**Calculator:** This course will use a graphing calculator (most students purchase a TI-84 plus/silver). The Instructor will be using a Texas Instruments graphing calculator, but any good graphing calculator with trigonometric functions will work (Casio also makes a nice one). **You are EXPECTED to use the calculator on all homework and tests.**
Computers: Obviously, you will need a computer to access the on-line e-book, videos, and homework. Tests will be online as well, but are password protected, so you will need to go to a proctored testing site to access them.

Grades: Your grade will be based on the percentage you achieve of the following scores:

<table>
<thead>
<tr>
<th>Test</th>
<th>Points</th>
<th>Grading Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test 1</td>
<td>100 pts</td>
<td>90% and up</td>
</tr>
<tr>
<td>Test 2</td>
<td>100 pts</td>
<td>80% - 89%</td>
</tr>
<tr>
<td>Test 3</td>
<td>100 pts</td>
<td>70% - 79%</td>
</tr>
<tr>
<td>Final</td>
<td>100 pts</td>
<td>60% - 69%</td>
</tr>
<tr>
<td>Homework</td>
<td>100 pts</td>
<td>Below 60 %</td>
</tr>
<tr>
<td>TOTAL POINTS</td>
<td>500 pts</td>
<td></td>
</tr>
</tbody>
</table>

Grading Scale:

- A’s: 90% and up
- B’s: 80% - 89%
- C’s: 70% - 79%
- D’s: 60% - 69%
- F: Below 60 %

Tests may only be made up with a documented, validated excuse.

Extra Help: Be sure to take advantage of the following FREE Tutoring Centers!

- **Math Tutor Lab.** West Science 3810.
  - M – TH 9 - 4 and F 9 – 3
- **All Campus Tutoring.** Learning Resource Center 111H.
  - S – W 2 – 10:00 p.m.

[www.calcchat.com/](http://www.calcchat.com/) is an online source connected with our book that works through all the ODD problems in our textbook (the homework consists mainly of EVEN problems, but usually problems occur in pairs and you may get some valuable insight viewing the solution to a similar problem). Also, a new website [www.LarsonPrecalculus.com](http://www.LarsonPrecalculus.com) has videos and worked out problems as well.

Foundation of Natural Sciences/Mathematics Requirement: 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.
**Student Learning Outcomes**

*Upon successful completion of this course the student will be able to:*

Understand and apply the rules of linear, quadratic, polynomial, exponential, and logarithmic relations to solve equations.

Understand and apply the concepts and properties of a function to model real-world situations, and use both algebraic and graphical methods to solve scenarios involving these functions.

Apply trigonometry to solve scenarios involving triangle relationships.

Solve problems involving systems of equations.

*Student achievement of these learning outcomes will be measured through:*

Performance on homework and exams.