Mathematics 103, Intermediate Algebra – *Fall 2012*   Section # 52976

Instructor: Scott Endler   **Class Times:** TTh 6:00pm - 8:25pm, FEM-4

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Required Text: Elementary and Intermediate Algebra
3rd Edition, George Woodbury

Prerequisite: Math 101 or placement test

Catalog Description: This course will deal with many algebraic concepts including: equations and inequalities in two variables, rational exponents and roots, quadratic functions, exponential and logarithmic functions, and conic sections.

Grading:			**Grading Scale:**		
60%	Chapter Tests			90-100%	A
15 %	Final Exam			80-89.9%	B
15%	Classwork/Homework			70-79.9%	C
10%	Quizzes			60-69.9%	D
				<60%	F

Chapter Tests: Six tests will be given during the term. These will mostly include material from the most recent chapter but may also include some previous material as well. Tests must be completed within time allowed during class. **There are no make-ups for missed quizzes or tests.**

Final Exam: The material in this course is used in many courses that follow in both math and science. Because of this, it is not acceptable to just forget everything once you take a chapter test. So, a comprehensive final exam will be given during final exam week.

Classwork/Homework: "Practice makes perfect" is particularly true in mathematics. Generally, assignments will be collected during class or at the beginning of the next class. Each assignment will be checked for completeness, neatness, and effort. Certain specific problems will be marked in depth. **Problems should be written out, all work must be shown, and answers boxed or underlined.** All assignments should have your name, the date, the assignment (chapter, section, and page number), and be in order.

Late Work and Make-up Assignments: Homework should be submitted on time. Being absent does not extend the due date for an assignment. Late homework will not be given full credit. Occasionally, optional make-up assignments may be given for extra credit homework points.

Required materials: Textbook, binder, 8.5" x 11" college ruled binder paper, pencils, scientific calculator, ruler, and graph paper.

Attendance and participation: It is important that you come to class every day and *participate actively*. Arrive on time and stay until the end of class. Late students not only miss important material but also distract the rest of the class. **Two tardies will be counted as an absence.** If you leave early, it may be counted as an absence. Learning mathematics is not a passive activity. As we progress through topics, students will be given problems in class to practice new skills. During this time, all students are expected to have paper out and to be actively working on these math problems with the rest of the class.

A student may be dropped due to excessive absences (5 or more) prior to February 12th. (However, if you decide to drop the course, it is **your** responsibility to make the drop official in the Administrations and Records Office or else possibly receive a grade of F.)

Cheating and/or plagiarism: Cheating and/or plagiarism will not be tolerated. A student will receive no credit for the assignment, quiz, or test if in the opinion of the instructor the individual has cheated.

Accommodations for Students with Disabilities:
If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act, please contact me as soon as possible.

Expected behavior: Please turn off cell phones before the start of every class period. **Do not use cell phones as calculators.** No one appreciates the distractions! Anyone that is disrespectful or disruptive to other students or the instructor may be removed from class for the day, and it will be considered an absence, or may be dropped from the class if the behavior is extreme enough.

Important Dates:

Add Date:	Friday, August 31	Last day to add a course
Drop Date:	Friday, August 31	Last day to drop this course to avoid a "W" for Fall 2012 (in person)
Drop Date:	Monday, September 3	Last day to drop this course to avoid a "W" for Fall 2012 (WebAdvisor)
Holiday:	Monday, September 3	Labor Day (no classes, campus closed)
	Friday, September 14	Last day to opt for Pass/No Pass
	Friday, October 12	Last day to drop this course (letter grades assigned after this date)
Holiday:	Monday, November 12	Veterans Day (no classes, campus open)
Holiday:	Th-F, November 22 - 23	Thanksgiving Holiday (no classes, campus closed)
Final Exam:	Monday, December 10	6:00-8:25 pm

Course Outline:

			(Tentative)
Unit A:	Review of Math 101	Parts of Chapters 1-7	Weeks 1-2
Unit B:	A Transition	Chapter 8	Weeks 2-5
Unit C:	Radical Expressions and Equations	Chapter 9	Weeks 5-8
Unit D:	Quadratic Equations	Chapter 10	Weeks 8-11
Unit E:	Functions	Chapter 11	Weeks 11-14
Unit F:	Logarithmic and Exponential Functions	Chapter 12	Weeks 14-17
Unit G:	Conic Sections, Sequences, and Final Exam Review	Chap. 13 & 14	Weeks 17-18

Course Outcomes:

Upon completion of this course, students will be able to:

A)   create a linear equation given a slope and a point or two points; graph linear equations and inequalities and use function notation to find the value of expressions.

B)   add, subtract, multiply, and divide radical expressions and use exponent properties and conjugate properties to simplify and solve radical expressions.

C)   complete the square of a quadratic equation and use the quadratic formula to solve any quadratic equation; graph quadratic equations using translations.

D)   solve exponential and logarithmic equations by using equivalent expressions; use exponential and logarithmic properties to convert between common logarithms, natural logarithms and other bases.

E)   expand binomial expressions using Pascal's triangle and the binomial coefficient formula; find the nth term of a sequence of numbers.

F)   graph each of the conic sections by translations; put conic equations and inequalities into the standard form.

Course Objectives:

In the process of completing this course, students will:

A)   use function notation and the properties of lines and linear inequalities.

B)   simplify radical expressions and perform operations on radical expressions.

C)   graph parabolas and solve quadratic equations.

D)   use the properties of exponents and logarithmic functions to change the base of a logarithm.

E)   generalize arithmetic and geometric sequences and find the k^{h} term of a binomial expansion.

F)   manipulate and graph equations of conic sections.