Econ 1078 - Math Tools for Economists I

Instructor:
Dan Hickman

Class Meeting Times:
MWF 12:00 PM - 12:50 PM, RAMY N1B23

Final Exam
Tuesday, May 6th 7:30-10:00 a.m., RAMY N1B23

Office Location:
Econ 313 (3rd Floor of the Economics Building)

Email:
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Class Websites:
http://webfiles.colorado.edu/hickmand
Material Relevant to the course will be posted here.

http://www.colorado.edu/economics/courses/ECON1078/1078home.html
This is the web page developed by all Econ 1078 instructors. You can find homework and exam problems from previous semesters here.

Office Hours:
Mondays and Wednesdays 10:00-11:30 a.m., and by appointment.

Office hours are held for your benefit. You are highly encouraged to come to my office hours with prepared questions.

Course Description and Objectives:
The goal of this class is to provide students with the mathematical tools needed for future courses in business and economics. We will cover polynomials, functions, present and future values, solving systems of equations, logic, probability, and differentiation.

Textbook:
Essential Mathematics for Economic Analysis, 2nd edition, by Knut Sydsater, and Peter Hammond is required. 1088 (Math Tools II) uses the same textbook. This is a very good reference book, which you may use in the future to refresh your knowledge of algebra and calculus.
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Calculator Note:
As this is a course designed to teach mathematical techniques you will need a calculator that can do basic mathematical functions. These include exponentials, logarithms, radicals, and factorials (log, ln, e^x, $\sqrt[n]{}$ and x!). Any basic scientific calculator will perform these functions. While a graphing calculator may be useful in doing some of the homework problems, **you cannot use a graphing calculator on exams or quizzes.**

Grading:
The scores for the course will be based on the standard scale:

93-100%	A	73-76%	C
90-92%	A-	70-72%	C-
87-89%	B+	67-69%	D+
83-86%	B	63-66%	D
80-82%	B-	60-62%	D-
77-79%	C+	below 60%	F

Your grade will come from the following breakdown:

15% - Quizzes (Top 4 out of 5 scores)
5% - In-Class Assignments
25% - Midterm 1 (February 13th)
25% - Midterm 2 (April 2nd)
30% - Final (May 6th, 7:30-10:00 a.m.)

Quizzes
There will be a total of five quizzes given during the semester. The lowest of your quiz scores will be dropped. *There will be no makeup quizzes given*.

In-Class Assignments
Randomly throughout the semester I will assign problems for you to work on in class, which you will hand in to me before you leave.   These problems are intended to provide practice and will be similar to problems you will see on quizzes and exams. As with the quizzes, the lowest of your in-class assignment scores will be automatically dropped. *There will be no makeup assignments given*.

Exams
We will take a total of three exams in this course. The midterm exams will be held on Wednesday February 13th and Wednesday April 2nd.   These exams will be held during the normal class time. If you miss a midterm exam, the weight of that exam will carry over onto the final. The final exam will be held on Tuesday May 6th from 7:30 to 10:00 a.m. in our normal classroom RAMY N1B23. The final exam will be cumulative. If you have three final exams scheduled for this day, and this is the last of your exams, you can take the final on another day. This is not possible since our exam is at 7:30 a.m.

Tentative Course Schedule:

Week of	Course Material	Topics	Quiz/Exam
1/14	1.1, 1.2, 1.3, 1.4	Algebra Basics	
1/21	1.5,1.6	Fractions and Inequalities	Quiz 1 (Friday 1/25)
1/28	1.7, 2.1, 2.2	Simple Equations	
2/4	2,3, 2.4, 2.5	Radicals, Equations in One Variable	Quiz 2 (Friday 2/8)
2/11	Midterm 1	Midterm Review	Midterm 1 (Wednesday 2/13)
2/18	3.1, 3.2, 3.4, 3.5	Summation, Logic	
2/25	3.6, 3.7, 4.1	Set Theory, Induction, Functions of One Variable	Quiz 3 (Friday 2/29)
3/3	4.2, 11.1, 4.3, 4.4	Linear Function, Functions of Two Variables	
3/10	4.5, 4.6, 4.7	Quadratic and Polynomial Functions	Quiz 4 (Friday 3/14)
3/17	4.8, 4.9, 4.10	Power, Exponential, Logarithmic Functions	
3/24	-	No Class (Spring Break)	
3/31	Midterm 2	Midterm Review	Midterm 2 (Wednesday 4/2)
4/7	5.1, 5.2, 5.3	Shifting Graphs, Inverse Functions	
4/14	5.4, 5.5, 5.6	Graphs, Distance, General Function	
4/21	6.1, 6.2, 6.3	Slope of Curves, Derivative	Quiz 5 (Friday 4/25)
4/28	Final Review	Review for Final Exam	
Final Exam on Tuesday May 6th 7:30-10:00 a.m.			

Honor Code:

All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council (honor@colorado.edu; 303-725-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non academic sanctions (including but not limited to university probation, suspension, or expulsion). Other information on the Honor Code can be found at http://www.colorado.edu/policies/honor.html and at http://www.colorado.edu/academics/honorcode/

Expectations of Classroom Behavior:

Students and faculty each have responsibility for maintaining an appropriate learning environment. Students who fail to adhere to behavioral standards may be subject to discipline. Faculty have the professional responsibility to treat students with understanding, dignity and respect, to guide classroom discussion and to set reasonable limits on the manner in which students express opinions.
See polices at
http://www.colorado.edu/policies/classbehavior.html and at
http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code

Absences:

Campus policy regarding religious observances requires that faculty make every effort to reasonably and fairly deal with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. Please notify me as soon as possible so that the proper arrangements can be made. Students can see full details at http://www.colorado.edu/policies/fac_relig.html

Disabilities Statement:

If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services in a timely manner so that your needs may be addressed. Disability Services determines accommodations based on documented disabilities. Contact: 303-492-8671, Willard 322, and http://www.Colorado.EDU/disabilityservices. Time extensions for exams must be approved by me prior to the exam. If you have not talked to me personally prior to the exam you will not be granted an extension.

Disability Services' letters for students with disabilities indicate legally mandated reasonable accommodations. Other letters/requests you may receive from agencies such as the Wardenburg Student Health Center, or other health providers, such as physicians or counselors, are recommendations you may choose to follow to assist students but are not necessarily legal mandates. The syllabus statements and answers to Frequently Asked Questions can be found at
http://www.colorado.edu/disabilityservices