Econ 1078 – Math Tools for Economists I
Spring 2014 – Section 002
MWF 2:00 - 2:50 – HUMN 135

Instructor: Tim Larsen

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Office: Econ 309A (3rd floor of the Econ Building)

Office Hours: Tuesday 10:30-11:30, Wednesday 3:00-4:00 and by appointment

Website: learn.colorado.edu (D2L)

Course Description

Economics is an extremely mathematical discipline. This course and the following course (ECON 1088) are designed to acquaint students with mathematical tools necessary for success in economics courses. See tentative schedule for topics covered in this course.

Succeeding in a Math Class

Math is learned and mastered through practice. Anyone who practices math is capable to doing math well. I will assign homework daily. It is your responsibility to make sure you are getting sufficient practice with the material, both in and out of class. Note that this may require work outside of the assigned problem sets.

Textbook

Essential Mathematics for Economic Analysis (4th edition) by Knut Sydsaeter, Peter Hammond, and Arne Strom. Economics 1088 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.

Grading

- **Lecture (Attendance, Quizzes, Participation) – 20%**
- **Problem Sets/Other Assignments – 20%**
- **Midterm 1 – 20%**
- **Midterm 2 – 20%**
- **Midterm 3 – 20%**
- **Final – 20%**

The lowest grade of the above categories will be dropped

Lecture (Attendance, Participation, Quizzes) – 20%

I will take attendance randomly throughout the semester—this is simply intended to give points to students that are making an effort in the class. I reserve the right to take points away from those not participating in the lecture, however. Quizzes will be given throughout the semester but will not be graded for accuracy unless announced ahead of time.

Problem Sets/Other Assignments – 20%

You may work in groups for these, but each person should turn in their own assignment. I will grade these for completion, but I will also check 1-2 problems for accuracy. Longer problem sets will be weighted more heavily. Due dates are listed on the schedule, but problems and sections covered will be announced during the course.

Midterms – 20% each – February 14th, March 14th, April 18th (All Fridays)

All tests will be in class. Try to show up a little early these days. Make-up exams will only be given under extenuating circumstances, and you should notify me of these ahead of time, though in most cases I will ask you to simply drop that exam from your course grade.

Final – 20% – Monday, May 5th, 1:30 – 4:00 p.m.

The final will mainly cover the sections we discuss after Midterm 3. A few topics from earlier in the course will also be included and will be announced ahead of time.

Grades

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

Calculators

You will need a *scientific* calculator that can do basic mathematical functions including exponentials, logarithms, and radicals (log, ln, e^x, $x\sqrt{}$). Although you may find using a graphing calculator useful in doing some of the homework problems, no graphing calculators will be allowed during exams.

Late Work

I will take of 20 percentage points from your grade for each day an assignment is late. Assignments due on Fridays must be turned in first thing (before 9:00) on the following Monday to be considered 1 day late.

Grade Policy

I cannot discuss grades over email. Come by my office hours with any questions.

Students with Disabilities

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 be addressed. Disability Services determines accommodations based on documented disabilities. Contact: 303-492-8671, Center for Community N200, and http://www.Colorado.EDU/disabilityservices.
If you have a temporary medical condition or injury, see guidelines at http://www.colorado.edu/disabilityservices/go.cgi?select=temporary.html.
Disability Services' letters for students with disabilities indicate legally mandated reasonable accommodations. The syllabus statements and answers to Frequently Asked Questions can be found at http://www.colorado.edu/disabilityservices.

Religious Observance Policy

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, If you have a conflict, please contact me at the beginning of the term so that we can make proper arrangements. See full details at http://www.colorado.edu/policies/fac_relig.html.

Classroom Behavior Policy

Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, color, culture, religion, creed, politics, veteran's status, sexual orientation, gender, gender identity, and gender expression, age, disability, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. See policies at http://www.colorado.edu/policies/classbehavior.html and at http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code.

Discrimination and Harassment Policy

The University of Colorado at Boulder Discrimination and Harassment Policy and Procedures, the University of Colorado Sexual Harassment Policy and Procedures, and the University of Colorado Conflict of Interest in Cases of Amorous Relationships Policy apply to all students, staff, and faculty. Any student, staff, or faculty member who believes s/he has been the subject of sexual harassment or discrimination or harassment based upon race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression or veteran status should contact the Office of Discrimination and Harassment (ODH) at 303-492-2127, or the Office of Student Conduct (OSC) at 303-492-5550. Information about the ODH, the above referenced policies, and the campus resources available to assist individuals regarding discrimination or harassment can be obtained at http://www.colorado.edu/odh.

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; 303-735-2273). 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/

Tentative Course Schedule

(Due dates will not change, but topics subject to change—see D2L)

Date	Course Material	Topics	Assignments
1/13-1/17	1.1, 1.2, 1.3	Numbers, Powers, Rules of Alg.	Read article for Weds. 1/15
1/22-1/24	Holiday, 1.4, 1.5	Fractions, Fractional Powers	PS 1 due Fri. 1/24
1/27-1/31	1.6, 1.7, 2.1	Inequalities, Intervals & Abs. Value, Simple Equations	
2/3-2/7	2.2, 2.3, 2.4	Equations	PS 2 due Weds. 2/5
2/10-2/14	2.5, Review	Nonlinear Equations	PS 3 due Weds. 2/12
		Exam 1, Friday. 2/14	
2/17-2/21	4.1, 4.2, 4.3	Functions, Graphing	
2/24-2/28	4.4, 4.5, 4.6	Linear Functions, Quadratic Functions	PS 4 due Fri. 2/28
3/3-3/7	4.7, 4.8, 4.9	Polynomials, Power & Exponential Functions	
3/10-3/14	4.10, Review, Exam 2	Logarithms	PS 5 due Weds. 3/12
		Exam 2, Friday 3/14	
3/17-3/21	5.1, 5.2, 5.3	Shifting Graphs, New Functions from Old, Inverse Functions	
3/24-3/28	Spring Break		
3/31-4/4	5.4, 5.5, 3.1	Graphing equations, Distance, Summation Notation	PS 6 due Fri. 4/4
4/7-4/11	3.2, 3.3, 3.4	Summation, Logic	
4/14-4/18	3.5, Review, Exam 3	Proofs	PS 7 due Weds. 4/16
		Exam 3, Friday 4/18	
4/21-4/25	10.1 (1.2, 4.9), 10.2 (4.10), 10.3	Interest	
4/28-5/2	15.1, 15.2, Review	Systems of Linear Equations, Matrices and Matrix Operations	PS 8 due Fri. 5/2

Final Exam, Monday 5/5, 1:30-4:00 p.m.