

Math Tools for Economists I

ECON 1078-001, Spring 2013

Instructor	Priti Kalsi
Class Meetings	MWF 12:00-12:50, RAMY N1B23
Email	priti.kalsi@colorado.edu This is the best way to contact me. If you do not get a reply within 24 hours, please assume I did not get your email and resend it.
Office	ECON 306
Office Hours	Monday 1:00-2:00 pm, Thursday 10:00-11:00 am.
Course Website	The course website is accessed through Desire2Learn where you will find all related course materials.

Course Description and Objectives

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

Expectations

You can expect me to do my best to help you succeed in this course. I will try my best to answer all questions, provide practice material, provide applications of the material and encourage active thought in the classroom. You may expect me to be respectful and professional at all times by arriving on time, silencing my phone, reserving personal conversation for before and after class, and being courteous with everyone.

I expect you to take the class seriously and to ask questions when something is unclear and actively participate to help us all understand the material better. I also expect you to be respectful and professional at all times by arriving on time, silencing your phone, reserving personal conversation for before and after class, and being courteous with everyone.

Succeeding in a Math class

Math is learned and mastered through practice. Anyone who practices math is capable of doing math well. I will assign homework daily. It is your responsibility to do all of the homework problems to make sure you are getting sufficient practice with the material. To encourage practice and completion of homework assignments, there will be several quizzes and tests in this course.

Textbook

Essential Mathematics for Economic Analysis, 4th edition, by Knut Sydsater, and Peter Hammond with Arne Strom is required. 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. For my class, you may choose to use the 3rd edition of this textbook and I will try to post HW for both editions, but realize that the following class uses the 4th edition.

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 , $n\sqrt{}$ and $x!$). Any basic scientific calculator will perform these functions. Although you may find using a graphing calculator useful in doing some of the homework problems, **NO GRAPHING CALCULATORS OR CELL PHONES WILL BE ALLOWED DURING EXAMS.**

Laptop Note

Nothing works better than good old fashion paper and pencil for taking notes in a math class, so it is hard to imagine why anyone would need a computer in this class. In general, **NO OPEN LAPTOPS ALLOWED** during lecture.

Grading

Your grade will come from the following breakdown:

- 20% Class Participation
- 25% Quiz (Drop lowest quiz)
- 50% 2 Midterms (Drop lowest of Total Quiz grade, Midterm 1 grade or Midterm 2 grade)
- 30% Final Exam (Cumulative)

NOTE that the grades add up to a total of 125%, but you get to drop the lowest of the two midterms or quiz grades giving a total of 100%.

Class Participation

We will use clickers in this class. Your class participation grade will come from clicker participation. Each clicker question will be worth 2 points. You will earn 1 point for answering the question and 1 point answering the question correctly.

Quizzes

There will be approximately 4 quizzes throughout the semester. These will not be long and you will be given 20-25 minutes to complete the quiz. I will announce quiz dates in advance during lectures. Although no homework is graded, quizzes provide a chance to prove you have done and understood the homework. Quizzes will be questions directly from homework or slight modifications of questions from homework. **THERE ARE NO MAKE UP QUIZZES. If you miss a quiz, then it will simply be your lowest score and it will be dropped.**

Exams

We will take a total of three exams in this course: two midterms and the final exam.

Midterms Midterm 1 Wednesday, March 13th

Midterm 2 Wednesday, April 17th

These exams will be held during the normal class time.

Final Saturday, May 4th 7:30 - 10:00 p.m.

The final exam will be cumulative and cannot be dropped for any reason.

THE EXAM DATES ARE FIXED. THERE ARE NO MAKEUP EXAMS (see exception for the final below)!!! If you miss a midterm, then it will be the dropped grade from the three grades of midterm 1, midterm 2 and quizzes. Flexible drops are designed to ensure that I will not need to provide a make up.

If you have conflict with the dates above, you may contact me immediately, but I would most likely suggest that you reschedule whatever else it is you have got going on or that you drop the course. NO EXCEPTIONS TO THIS POLICY!

If you have three or more final exams scheduled on the same day, you are entitled to arrange an alternative exam time for the last exam or exams scheduled on that day. To qualify for rescheduling final exam times, you must provide evidence that you have three or more exams on the same day, and arrangements must be made with me no later than the end of the sixth week of the semester (**Friday, February 22, 2013**).

Homework

For each chapter, I will suggest a list of problems from the book that will be good practice for the exams and quizzes. **Homework is NOT graded, but note that doing your homework will most definitely improve your quiz grade and your overall grade.**

Tentative Schedule

Week of	Course Material	Topics	Exams
Jan 14 th	1.1, 1.2, 1.3	Numbers, Powers, Rules of Algebra	
Jan 23 st	1.4, 1.5	No School Jan 21 st , Fractions	
Jan 28 th	1.6, 1.7, 2.1	Inequalities, Intervals & Absolute Values, Simple Equations	

Feb 4 th	2.2, 2.3, 2.4	Equations continued	
Feb 11 th	2.5, 3.6, 4.1	Nonlinear equations, Set Theory, Functions	
Feb 18 th	4.2, 4.3, 4.4	Graphs of Functions, Linear Functions	
Feb 25 th	4.5, 4.6, 4.7	Linear Models, Quadratic Functions, Polynomials	
Mar 4 th	4.8, 4.9, 4.10	Power Functions, Exponential Functions, Logarithmic Functions	
Mar 11 th	Midterm 1, 5.1	Midterm Review, Shifting Graphs	Midterm 1-Mar 13 th
Mar 18 th	5.2, 5.3, 5.4	New Functions from Old, Inverse Functions, Graphing equations	
Mar 25 th	--	Spring Break	
Apr 1 st	5.5, 5.6, 3.1	Distance in Plane, General Functions Summation Notation	
Apr 8 th	3.2, 3.3, 3.4	Rules of Sums, Double Sums, Logic	
Apr 15 th	Midterm 2, 15.1	Midterm Review, Systems of Linear Equations	Midterm 2-Apr 17 th
Apr 22 nd	15.2, 15.3, 15.4	Matrix Operations, Matrix Multiplication, Rules for Matrix Multiplication	15.2, 15.3, 15.4
Apr 29 th	15.5, 15.6	The Transpose, Gaussian Elimination, Final Review	

Final Exam on Saturday, May 4th 7:30 - 10:00 p.m.

Additional Notes:

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. 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.

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/>.