Math Tools for Economists I
ECON 1078-001

Instructor   Priti Kalsi
Class Meetings   MWF 12:00-12:50, HUMN 1B80
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 you email and resend it.

Office   ECON 306
Office Hours   Monday 1:00-2:00 pm, Wednesday 10:45-11:45 am, and by appointment.

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 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 to doing math well. I will assign homework daily. It is your responsibility to do all 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, 3rd edition, by Knut Sydsater, and Peter Hammond 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.

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, ex, n√ 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:
5%   Class Participation
20%   Quiz (Drop lowest quiz)
45%   2 Midterms (Each worth 22.5% of your grade)
30%   Final Exam (Cumulative)

Class Participation
I will take attendance on randomly selected days. Also, you are expected to participate in class discussion. In order to learn from each other, I expect everyone to discuss their answer by either writing it on the board or through discussion at some point during the semester. Attendance and class participation together will account for a total of 5% of your grade.

Quizzes
There will be approximately 5 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 (another reason why attendance will matter). Although no homework is graded, quizzes provide a chance to prove you have done and understood the homework. I will use at least 1 problem directly from the homework as a quiz problem. I will drop your lowest quiz grade. **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, October 17th

Midterm 2   Wednesday, November 14th

These exams will be held during the normal class time.

Final   Tuesday, December 18th 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 MAKEUPS EXAMS (see exception for the final below)!!! If you have conflict, you make 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 EXPCEPTIONS 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, October 5, 2012).**

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
Aug. 27th	1.1, 1.2, 1.3	Numbers, Powers, Rules of Algebra	
Sep. 5th	1.4, 1.5	Fractions	
Sep. 10th	1.6 1.7, 2.1	Inequalities, Intervals & Absolute Values, Simple Equations	
Sep. 17th	2.2, 2.3, 2.4	Equations continued	
Sep. 24th	2.5, 4.1, 4.2	Nonlinear equations, Functions	
Oct. 1st	4.3, 4.4, 4.5	Graphs of Functions, Linear Functions, Linear Models	
Oct. 3th	4.6, 4.7, 4.8	Quadratic Functions, Polynomials, Power Functions	

Oct. 8th	4.9, 4.10, 5.1	Exponential Functions, Logarithmic Functions, Shifting Graphs	
Oct. 15th	Midterm 1, 5.2	Midterm Review, New Functions from Old	Midterm 1-Oct. 17th
Oct. 22th	5.3, 5.4, 5.6	Inverse Functions, Graphing equations, General Functions	
Oct. 29th	3.1, 3.2	Summation Notation, Rules of Sums	
Nov. 5th	3.3, 3.4, 3.6	Double Sums, Logic, Set Theory	
Nov. 12th	Midterm 2, 15.1	Midterm Review, Systems of Linear Equations	Midterm 2-Nov. 14th
Nov. 19th	15.2, 15.3, 15.4	Matrix Operations, Matrix Multiplication, Rules for Matrix Multiplication	
Nov. 26th	-	No class (Fall Break)	-
Dec. 3rd	15.5, 15.6	The Transpose, Gaussian Elimination	
Dec. 10th	Final Review	Review for Final Exam	

Final Exam on Tuesday, December 18th 7:30 - 10:00 p.m.

Additional Notes:

<u>Students with Disabilities</u>

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. 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/.