# Math Tools for Economists I ECON 1078-003, Fall 2013

Instructor Class Meetings Email	Priti Kalsi MWF, 10:00-10:50am. Room ECCR 245 <u>kalsi@colorado.edu</u>
Office Office Hours	ECON 313 Monday 11:30-12:30 pm Wednesday 1:00 pm- 2:00 pm
Course Website	The course website is accessed through Desire2Learn where you will find all related course materials. <u>https://learn.colorado.edu</u>

#### **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.

#### Textbook

Essential Mathematics for Economic Analysis, 4<sup>th</sup> 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.

## **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, exp,  $\sqrt{}$  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 assignments, **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.

## Seating

While there is no assigned seating, the room is too big for the class size. Except for when we take exams, please **DO NOT SIT IN THE LAST TWO ROWS**.

## Grading

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

Your grade will come from the following breakdown:

- 20% Quizzes and In-class Assignments (Drop Lowest)
- 10% Problem Sets
- 40% 3 Midterms (Drop lowest, 20% each)
- 30% Final Exam (Cumulative)

# Quizzes

There will be a few quizzes throughout the course. These will not be long and you will be given 20-25 minutes to complete the quiz. The date of the quiz will be announced at least 2 class days in advance.

# **Problem Sets**

Throughout the course, I will suggest a list of problems. While some of these problems will be directly from the book, others will not. These problem sets should be handed before starting of the class of due date. Please be on time. There are no makeup problem sets. You should show all of your work to get the answer for each problem. **I WILL NOT GRADE ANSWERS WITH NO WORK.** You are allowed to work in groups of at most 3 people. Please only turn in one copy per group.

#### Exams

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

- Midterm 1 Friday, September 27
- Midterm 2 Friday, October 25
- Midterm 3 Friday, November 22
- Final Monday, December 16

# THE EXAM DATES ARE FIXED. THERE ARE NO MAKEUP EXAMS!! If you miss a midterm, then it is dropped.

## **Tentative Schedule**

Dates	Book	Торіс	
8/26-	Ch 1	Algebra Basics	
8/30		Ingebra Dastes	
9/02	NO CLASS: LABOR DAY		
9/04-	Ch 1	Algebra Basics	
9/06			
9/09-	Ch 2	Equations, Set Theory	
9/23	Section 3.6		
9/25	MIDTERM 1: REVIEW		
9/27	MIDTERM 1		
9/30-	Ch 4	Functions	
10/21			
10/23	MIDTERM 2: REVIEW		
10/25	MIDTERM 2		
10/28-	Ch 5	Graphs	
11/08		-	
11/11-	Ch 3	Summation, Logic	
11/18			
11/20	MIDTERM 3: REVIEW		
11/22	MIDTERM 3		
11/25-	NO CLASS: FALL BREAK		
11/29			
12/02-	Ch 15	Matrix Algebra	
12/11			
12/13	FINAL EXAM REVIEW		
12/16	FINAL EXA	M: 4:30 PM-7:00 PM	

# 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 <u>http://disabilityservices.colorado.edu/general-information/temporary-injuries</u>

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 <u>http://disabilityservices.colorado.edu</u>

# **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 <a href="http://www.colorado.edu/policies/fac\_relig.html">http://www.colorado.edu/policies/fac\_relig.html</a>

# **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 www.colorado.edu/policies/classbehavior.html

# **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 <a href="http://www.colorado.edu/odh">http://www.colorado.edu/odh</a>

# 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