## MATHEMATICAL TOOLS FOR ECONOMICS ECON 1078-003 – SPRING 2010

Instructor:	Hakon Skjenstad
Class Time:	M, W, F, 12:00-12:50
Classroom:	ENVD 120
Email:	hakon.skjenstad@colorado.edu
<b>Course Website:</b>	CULearn
Office:	ECON 401 (North Tower Office in Econ Building)
Office Hours:	M, W 13:00-15:00
Textbook:	Essential Mathematics for Economic Analysis 3rd ed. by K.
	Sydsaeter and P. Hammond.
Final Exam:	Monday May 2 <sup>nd</sup> from 4:30pm to 7:00pm in the normal
	classroom
Midterm 1:	TBD
Midterm 2:	TBD

## **TEXTBOOK (REQUIRED)**

*Essential Mathematics for Economic Analysis* 3rd ed. by K. Sydsaeter and P. Hammond; publisher Prentice Hall.

The book is available from the CU book store or online, for example at Amazon or eBay. Your cheapest option is probably half.com: <u>http://product.half.ebay.com/\_W0QQprZ70918426</u> but be sure to read the reviews on the sellers if you get it from there since you are buying it from individual sellers but not a big online store (like Amazon is).

## **COURSE DESCRIPTION**

This is the first Mathematical course for many of you at the college level. You will find that the topics are covered much faster and that the problems you are required to solve are more difficult than compared to upper level classes in high school. It is important to adopt a way of learning the math even if you do not perfectly understand the material at first look. My goal with this course is to teach you how to learn math! Yes I think it is a special skill to learn math and think mathematically. It is a skill that is not only useful for learning mathematics but one that helps you with any sort of reasoning and scientific pursuit.

The topics covered fall into three categories; basic functional analysis (pre-calculus), discrete mathematics and some basic concepts from calculus (differentiation). With these topics we will do a myriad of applied problems and applications that will help you understand the topics of each chapter and how it can be applied.

## **COURSE LEVEL & PREREQUISITES**

This course is an introductory mathematics course at the COLLEGE LEVEL. This means that even if no prerequisites are required this course will be very difficult for you if you have not had any higher level mathematics courses before on the high school or college level. People in the class will have very different levels of preparation so if you have very little math background you should realize you are taking tests with people that are much more trained in mathematics than you are. This is not meant to scare you off, but to make you understand that a lot of work is required if you have not seen any of the topics covered before.

## HOW TO STUDY FOR THIS COURSE

Read each chapter before coming to class to get more out of the lectures. We will go quickly over topics in the lectures and there will not be a lot of time to digest new material during lecture. Therefore I recommend reading the textbook before each lecture on the relevant material and again when you are doing the assigned problems from the book. Learning mathematics is all about giving yourself enough time to understand the concepts and most importantly by practicing a lot! That is, by studying and solving lots of problems.

Remember: "He who asks a question looks stupid for 5 minutes. He who doesn't ask a question remains stupid forever".

## GRADING

This course is graded on the basis of your performance in two areas: Problem sets and examinations. Here is the breakdown for your final grade calculation:

Problem Sets:	30%
Midterm I:	20%
Midterm II:	20%
Final:	30%

Problem sets are weighted heavily in your final grade because the only way to really learn mathematics skills is to practice them, and being engaged in your learning. Simply attending lecture and tests will not suffice! There are *absolutely no* makeup exams—if you miss Midterm I or Midterm II, your total exam grade will be based off just the one midterm you took and the Final— note—this means that the final will be weighted more heavily in your final grade breakdown, worth **50%** of your final grade, so take this seriously and try not to miss any exams. There are no make-ups for the final. Period. If you have a conflict (3 or more finals on the same day, let me know as soon as possible, no less than a month before the final exam, so I can make arrangements for a different time for you. **There will be no early exams or make-up exams for the midterms except for the final**, since they are difficult to make comparable and this system does not penalize you for missing one exam in any event.

## EXAMS

All exams will be held during class time in our regular classroom. Exams may be taken only on the specified exam date and time. Your grade on the final exam will not be dropped for any reason.

Midterm exams will not be cumulative. I will announce before each exam the topics that will be included. Exam material will be based on the lecture notes and book materials. All exams will be held in the usual classroom.

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. **Graphing calculators and cell-phones are not allowed in any test.** 

## **TENTATIVE COURSE SCHEDULE**

#### TBD

# OTHER INFORMATION

#### **Disability Policy:**

If you qualify for accommodations because of a disability, please submit a letter from Disability Services to me 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 <u>http://www.Colorado.EDU/disabilityservices</u>.

## **Religious Observance Policy:**

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. If you have a conflict, please contact me at the beginning of the semester so we can make proper arrangements.

## **Classroom Behavior Policy:**

Students and faculty each have responsibility for maintaining an appropriate learning environment. Students who fail to adhere to such behavioral standards may be subject to discipline. Faculty have the professional responsibility to treat all students with understanding, dignity and respect, to guide classroom discussion and to set reasonable limits on the manner in which they and their students express opinions. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender variance, 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.

## 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). See http://www.colorado.edu/policies/honor.html http://www.colorado.edu/academics/honorcode.

## **Discrimination & Harassment Policy:**

The University of Colorado at Boulder policy on Discrimination and Harassment (http://www.colorado.edu/policies/discrimination.html, the University of Colorado policy on Sexual Harassment and the University of Colorado policy on Amorous Relationships applies to all students, staff and faculty. Any student, staff or faculty member who believes s/he has been the subject of discrimination or harassment based upon race, color, national origin, sex, age, disability, religion, sexual orientation, or veteran status should contact the

Office of Discrimination and Harassment (ODH) at 303-492-2127 or the Office of Judicial Affairs at 303-492-5550. Information about the ODH and the campus resources available to assist individuals regarding discrimination or harassment can be obtained at http://www.colorado.edu/odh.