ECON 1088-200 Syllabus

Econ 1088: Math Tools for Economists II

Summer 2006

Instructor: Lei Yang
Class Hours: MTWRF 11:00-12:35
Class location: ECON 119
Office: Econ 309 B
Office Hours: MW 12:35-2:00 p.m. and by appointment
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The web page is the most important resource for this class. All notes, homework, answer keys are going to be posted on this site.

Course Description:
This course is a continuation of Econ 1078. Basically, it consists of two parts: derivatives and integrals (chapters 9-11 of the text). These tools will help you to better understand the mathematical framework on which economic models are based.

Prerequisite:
Econ 1078 or equivalent.

Textbooks:
Required: Raymond A. Barnett and Michael R. Ziegler, "Essentials of College Mathematics", 10th edition.
Recommended: Student solution manual for Essentials of College Mathematics.
Recommended: A scientific calculator.

Homework:
Homework will be assigned during each class. It is a vital part of learning to use math tools and its applications. They will be collected daily and I will grade part of them at random. You are allowed to miss one homework assignment throughout the semester. You are encouraged to work together, but your answers must be written individually to be sure that you understand, and get credit for your homework. Homework, exams and solutions will be posted on the course web site. Some class time will be set aside to go over homework assignments. *No late homework will be accepted.* In addition to the assigned homework, the Student Solution Manual to accompany the textbook provides solutions to every odd numbered problem. You are recommended to practice

them.

Exam Schedule:

	Date
Exam1(In-class)	July 21, 2006
Exam2(In-class)	July 28, 2006
Exam3(In-class)	August 4, 2006
Final Exam(In-class)	August 11, 2006

Grading:
Homework: 15 points
In-class Exam1: 25 points
In-class Exam2: 25 points
In-class Exam3: 25 points
Final Exam: 35 points

1) Each in-class midterm is worth 25 points (I will drop the lowest in-class midterm grade). There will be **no make-ups**.

2) The Final is **compulsory** and **cumulative**. The final is worth 35 points. It cannot be replaced with any other exam under any circumstances. You can only rearrange your final if you have **three or more** finals on the same day.

Topics covered in the course include (Tentative Course Outline):
Chapter 9 The Derivative:
9-1 Introduction to Limits
9-2 Continuity
9-3 The Derivative
9-4 Power Rule and Basic Differentiation Properties
9-5 Derivatives of Products and Quotients
9-6 General Power Rule (Chain Rule)
9-7 Marginal Analysis in Business and Economics
Chapter 10 Graphing and Optimization:
10-1 First Derivative and Graphs
10-2 Second Derivative and Graphs
10-3 Graphing Rational Functions
10-4 Absolute Maxima and Minima
10-5 Optimization
Chapter 11 Additional Derivative Topics:

11-2 Exponential Functions and Their Derivatives
11-3 Logarithmic Functions and Their Derivatives
11-4 Chain Rule
11-5 Implicit Differentiation
Chapter 12 Integration:
12-1 Antiderivatives and Indefinite Integrals
12-2 Integration by Substitution
12-5 The Fundamental Theorem of Calculus
Chapter 13 Additional Integration Topics:
13-1 Area Between Curves
13-2 Applications in Business and Economics
Chapter 14 Multivariable Calculus:
14-2 Partial Derivatives

Tips:
1) You are encouraged to work with your classmates. Study group is strongly recommended. Try to find your group members at the beginning of the semester.

2) Read the material in advance of lectures and try to understand most of the material during the lecture. Read the book and do problem sets every time after class. If you do not understand something, come to my office hours and I will help you out.

Tutor Resources:
If you need tutoring, there are two links that may help you to find one. The first is a drop-in lab, which is totally free and supported by Econ department. The second link gives you a tutor locator through which you can find an individual tutor but you have to pay some compensation.

1). Econ Department drop-in tutorial lab (Free!)
(http://www.colorado.edu/Economics/undergrad/tutorial_lab.htm)

2). Colorado tutor locator for individual tutoring
(http://masala.colorado.edu/tutors/)

General policies:
1) It is the students' responsibility to take control of their own education. If you are having problems, I am more than willing to help you. You just need to approach me at some point.

2) No make-ups will be given unless there is a proven emergency that prevents you from attending class on the scheduled exam date. You are required to submit proof of the emergency. If you miss an exam or homework, you will be given a zero.

3) 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). 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/
Honor Code: "On my honor, as a University of Colorado at Boulder student, I have neither given nor received unauthorized assistance on this work."

4) 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 may be addressed.   Disability Services determines accommodations based on documented disabilities.   Contact: 303-492-8671, Willard 322, and www.Colorado.EDU/disabilityservices.

5) 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. Students can see full details at http://www.colorado.edu/policies/fac_relig.html

6) Students and faculty each have responsibility for maintaining an appropriate learning environment. Students who fail to adhere to behavioral standards may be subject to discipline. Faculty have the professional responsibility to treat students with understanding, dignity and respect, to guide classroom discussion and to set reasonable limits on the manner in which students express opinions. See polices at http://www.colorado.edu/policies/classbehavior.html and at http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student