

Syllabus

Econ 1088 - 003 Math Tools for Economists II

Fall 2005

Instructor: Woradee Jongadsayakul

Class Hours: MWF 2:00 - 2:50 pm

Class location: RAMY N1B23

Office: Econ 414

Office Hours: W 10:00 a.m. - 1:00 p.m. and by appointment

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Course Description:

This class is a continuation of ECON 1078. It covers derivatives and integrals (part three of the text). These calculus 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.

Homework:

Homework will be assigned during class time. It is a vital part of learning to use math tools and its applications. They will be collected and graded randomly. 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 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)	September 21 st , 2005
Exam2(In-class)	October 12 th , 2005
Exam3(In-class)	November 14 th , 2005
Final Exam(1:30-4:00pm)	December 10 th , 2005

Grading:

Homework: 15 points

In-class Exam1: 25 points

In-class Exam2: 25 points

In-class Exam3: 25 points

Final Exam: 35 points

There will be three in-class exams and a compulsory cumulative final exam. Each in-class exam is worth 25 points (I will drop the lowest in-class exam grade). The final is worth 35 points. There will be **no make-ups**. Your grade will be assigned based on the following scale.

<u>Score</u>	<u>Letter Grade</u>
94-100	A
90-93	A-
87-89	B+
84-86	B
80-83	B-
77-79	C+
74-76	C
70-73	C-
67-69	D+
64-66	D
60-63	D-
Below 60	F

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)
(http://www.colorado.edu/Economics/undergrad/tutorial_lab.htm)
- 2). [Colorado tutor locator for individual tutoring](http://masala.colorado.edu/tutors/)
(<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 has 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 policies at <http://www.colorado.edu/policies/classbehavior.html> and at <http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student>