# **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

**Office Phone:** (303) 492-6237

E-mail: lei.yang@colorado.edu (preferred method of contact)

Website: http://ucsu.colorado.edu/~llyang

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:**

#### **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:

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