Syllabus

Econ 1088 - 002 Math Tools for Economists II Spring 2007

Instructor: David Kingsley

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

Class location: BESC 185

Office: Econ 12

Office Hours: Monday and Wednesday 12:30 - 1:30 p.m.

And by appointment

Office Phone: 303-735-1727

E-mail: David.Kingsley@colorado.edu (preferred method of contact)

Course Website: Includes information specific to my class. For example, homework, quizzes and midterm information.

http://ucsub.colorado.edu/~kingsled

1088 General Website: Includes materials common to all sections of 1088 as well as review problems.

http://www.colorado.edu/economics/courses/ECON1088/1088home.html

Prerequisite:

Econ 1078 or equivalent

Required Textbooks:

Knut Sydsaeter and Peter Hammond, "Essential Mathematics for Economic Analysis", Second edition

The Course

This course provides the foundation of mathematical analysis necessary for the rest of your Economic courses as an undergraduate. Note that your textbook is the official math reference

Exams:

Three midterms will be given and one comprehensive final. All exams are given in the classroom. The lowest of the exams (excluding the final) will be dropped. Again, this means that no make up exams will be granted. The final will not be dropped.

Midterm 1: Wednesday February 14th 2007 Midterm 2: Wednesday March 21st 2007 Midterm 3: Wednesday April 25th 2007

Final Exam: Saturday May 5th 2007 from 7:30 to 10:00 am

Grading:

Top N-2 quizzes will make up 20% of your grade Top 2 Midterms will make up 40% of your grade (20% each) Cumulative Final will make up 40% of your grade

Letter Grading:

90-100 A 80-89 B

70-79 C

60-69 D

Below 60 F

Tentative Course Outline

Chapter 6 Differentiation:

- 6-1 Slopes of Curves
- 6-2 The Derivative. Tangents
- 6-3 Increasing and Decreasing Functions
- 6-4 Rates of Change
- 6-5 A Dash of Limits
- 6-6 Simple Rules for Differentiation
- 6-7 Sums, Products, and Quotients
- 6-8 Chain Rule
- 6-9 Higher Order Derivatives
- 6-10 Exponential Functions
- 6-11 Logarithmic Functions

Chapter 7 Derivatives in Use:

- 7-1 Implicit Differentiation
- 7-2 Economic Examples
- 7-7 Why Economists Use Elasticities?

Chapter 8 Single Variable Optimization

- 8-1 Introduction
- 8-2 Simple Tests for Extreme Points
- 8-3 Economics Examples
- 8-4 The Extreme Value Theorem
- 8-5 Further Economic Examples

Chapter 11 Functions of Many Variables:

- 11-1 Functions of Two Variables
- 11-2 Partial Derivatives with Two Variables
- 11-5 Functions of More Variables
- 11-6 Partial Derivatives with More Variables
- 11-7 Economic Application