

ECON 1088-004

Math Tool for Economists II

August 2017

Instructor: Li Yao

Course meeting: MWF 2:00-2:50 PM HELMS 241

Email: li.yao@colorado.edu

Office: ECON 309B

Office Hour: Wednesday 3:00-5:00 PM

Course Description: This class is the second of a two course sequence. It is a continuation of ECON 1078 which builds upon the basic foundation developed in that course. We will study derivatives, optimization, and integrals. These are Chapters 6,7,8,9, and 11 in the textbook. These tools will help you better understand the mathematical framework on which economics models are based and help prepare you for more advanced economics.

Prerequisite: ECON 1078 or equivalent.

Textbook: Essential Mathematics for Economic Analysis 4th Edition. Authors: Knut Sydsaeter and Peter Hammond.

Course Policies:

General:

- { Class periods will be devoted to lectures and practice. Therefore, good attendance is key to succeeding in the course. Attendance will be randomly taken for 5 times over the semester. No absences will be excused unless you have a good reason.
- { Lectures will be based around the chalkboard, and extensive mathematical notation will be used. Therefore, I highly recommend taking notes on paper. However, if you can successfully take notes with a computer or tablet, please minimize the distraction to other students and sit toward the back of the classroom. Stay off of the Internet.
- { Please allow 24 hours for me to respond to your emails. Grades will not be discussed over email. Emails regarding grades will receive a reply of "Office hours".

Grades:

{ Distribution:

Attendance	5%
Assignments	5%
Midterm1	20%
Midterm2	20%
Midterm3	20%
Final Exam	30%

{ Letter Grade Cuto s:

>

Additional Notes:

Students with Disabilities

Tentative Sechedule

Week of	Course Material	Topics
Aug 28th	6.1, 6.2, 6.3	Slopes, Tangents, Derivatives
Sept 4th	6.4, 6.5	Rates of Changes, Limits
Sept 11th	6.6, 6.7, 6.8	Sums, Products, Chain Rules
Sept 18th	6.9, 6.10, 6.11	Higher Order, Exponentials, Logs
Sept 25th	Review	Exam(Sept 29th)
Oct 2nd	7.1, 7.2, 7.3	Implicit Di erentiation, Economic Uses
Oct 9th	7.7, 7.8, 7.9	Elasticities, Continuity, Limits
Oct 16th	7.12, Review	L'Hopital's Rules, Exam(Oct 20th)
Oct 23rd	8.1, 8.2, 8.3	Optimization
Oct 30th	8.6,8.7, 11.1	Local Extrema, In ection, Functions of two variables
Nov 6th	11.2, 11.3, 11.6	Partial derivatives, More variables
Nov 13th	11.7, 11.8	Economic application, Partial elasticity, Exam(Nov 17th)
Nov 20th	{	Fall Break
Nov 27th	9.1, 9.2, 9.3	Integration, Properties
Dec 4th	9.4, 9.5, 9.6	Integration Rules
Final Week	-	FINAL December 20th 1:30pm 4pm