

**MATH TOOLS FOR ECONOMISTS II**  
**ECON 1088 - 001**  
**Spring 2011**

**Instructor:** Luis Castro  
**Time and location:** MWF 11:00 - 11:50am @ DUAN G125  
**Prerequisite:** ECON 1078 or its equivalent  
**Textbook:** *Essential Mathematics for Economic Analysis*, 3d edition,  
by Knut Sydster and Peter Hammond, Prentice Hall, 2008.  
**Office:** Economics 414  
**Office Hours:** M, W from 1:00 - 3:00 or by appointment  
**Final Exam:** W May 4<sup>th</sup> from 7:30 - 10:00pm @ DUAN G125  
**Websites:** <https://webfiles.colorado.edu/castrope>  
Past exams are available at:  
<http://www.colorado.edu/economics/courses/ECON1088/1088home.html>  
Student Resources are available at:  
<http://www.pearsoned.co.uk/Sydsaeter>  
**Email:** [Luis.Castropenarrieta@colorado.edu](mailto:Luis.Castropenarrieta@colorado.edu)

**CONTENT**

This class is the second of a two-course sequence, and a continuation of ECON 1078. We will cover topics that include derivatives, optimization, and integrals. These tools will help you better understand the mathematical framework on which economic models are based and help prepare you for more advanced economics courses.

**GRADING**

Your grade will consist of three exams, a **cumulative** final exam, homework assignments and in-class team assignments. I **will not** give any make up exams and **will not** give early/late exams. Each portion of your grade will be weighted as follows:

Midterm 1:	25%	Friday, February 11
Midterm 2:	25%	Wednesday, March 16
Midterm 3:	25%	Friday, April 15
Final Exam:	30%	Wednesday, May 4 @ 7:30pm
Homework Assignments:	10%	
Team Assignments:	10%	

**IMPORTANT:** Since the final exam is at 7:30pm, you need to let me know, **AT THE BEGINNING OF THE SEMESTER**, if you have three exams on 5/4 to arrange a different time.

To make your total grade add up to 100%, I will drop the lowest of the three midterm scores. In addition, I will drop the lowest of the homework grades and the lowest of the team grades. **Your grade on the final exam will not be dropped under any circumstances.**

Homework assignments are due at the beginning of class of the due date. I will not accept late assignments for any reason.

### GRADING SCALE

Score	Grade
93 - 100%	A
90 - 92%	A-
87 - 89%	B+
83 - 86%	B
80 - 82%	B-
77 - 79%	C+
73 - 76%	C
70 - 72%	C-
67 - 69%	D+
63 - 66%	D
60 - 62%	D-
Below 60%	F

## TENTATIVE SCHEDULE

Week	Book	Topic	HW/TA/ Exam
1/10	6.1, 6.2, 6.3	Slopes, Derivatives, Tangents, Increasing/Decreasing functions	
1/17	6.4, 6.5, 6.6	Rates of Change, Limits	TA 1
1/24	6.7, 6.8, 6.9	Sums, Products, Quotients, Chain rule, Higher Order	HW 1
1/31	6.10, 6.11	Exponentials, Logarithms,	TA 2
2/7	Review	Examples <b>MIDTERM 1</b>	HW 2 <b>2/11</b>
2/14	7.1, 7.2, 7.7	Implicit Differentiation, Examples, Elasticities	
2/21	8.1, 8.2, 8.3	Optimization	TA 3
2/28	8.6, 8.7	Examples, Local Extrema, Inflection Points	HW 3
3/7	11.1, 11.2, 11.3	Functions of Many Variables, Partial Derivatives, Geometry	
3/14	Review	Examples, <b>MIDTERM 2</b>	<b>3/16</b>
3/21	-	SPRING BREAK (no classes)	
3/28	11.5, 11.6, 11.7	Many Variables,	HW 4
4/4	12.1, 12.2, 12.3 12.5	Comparative Statics, Level Curves Elasticities	
4/11	13.1, 13.2 13.3	Multivariable Optimization Local Extreme Points <b>MIDTERM 3</b>	TA 4 <b>4/15</b>
4/18	9.1 - 9.6	Integration	TA 5
4/25	Review		HW 5
5/4		<b>FINAL EXAM 7:30 PM</b>	

## **ADDITIONAL NOTES**

### **Students with Disabilities**

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](http://www.colorado.edu/disabilityservices). Disability Services' letters for students with disabilities indicate legally mandated reasonable accommodations. The syllabus statements and answers to Frequently Asked Questions can be found at [www.colorado.edu/disabilityservices](http://www.colorado.edu/disabilityservices).

### **Religious Observation Policy**

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. If you have a conflict, please contact me at the beginning of the term so we can make proper arrangements.

### **Classroom Behavior Policy**

Students and faculty each have responsibility for maintaining an appropriate learning environment. Students who fail to adhere to such behavioral standards may be subject to discipline. Faculty has the professional responsibility to treat all students with understanding, dignity and respect, to guide classroom discussion and to set reasonable limits on the manner in which they and their students express opinions.

Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender variance, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. See policies at <http://www.colorado.edu/policies/classbehavior.html> and at <http://www.colorado.edu/studentaffairs/judicialaffairs/code.html>.

### **Honor Code**

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](mailto: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/>.

### **Discrimination & Harassment Policy**

The University of Colorado Policy on Sexual Harassment applies to all students, staff and faculty. Sexual harassment is unwelcome sexual attention. It can involve intimidation, threats, coercion, or promises or create an environment that is hostile or offensive. Harassment may occur between members of the same or opposite gender and between any combinations of members in the campus community: students, faculty, staff, and administrators. Harassment can occur anywhere on campus, including the classroom, the workplace, or a residence hall. Any student, staff or faculty member who believes s/he has been sexually harassed should contact the Office of Discrimination and Harassment (ODH) at 303-492-2127 or the Office of Judicial Affairs at 303-492-5550. Information about the ODH and the campus resources available to assist individuals who believe they have been sexually harassed can be obtained at: <http://www.colorado.edu/odh/>.