Fall 2006: Syllabus for Math Tools for Economists I (Econ 1078-003)

Instructor:

Shuichiro Nishioka

I am a 5th year PhD student who comes from Tokyo Japan.
After worked in public sector in Japan, I joined the PhD program in 2002.
My field is International Trade. In particular, I am interested in empirical studies of
international specialization: why the U.S imports textiles and exports airplanes?

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Essential Mathematics for Economic Analysis, 2nd edition,
Knut Sydsaeter and Peter Hammond (This textbook is a good reference book for
mathematics and will be used for Econ-1088)

Grading:

Grades will be determined on the basis of your performance on 12 quizzes (take-home, in-class, group, …), 2 midterms, and a cumulative final exam. Midterms and quizzes will be given on Wednesdays. The questions will be taken mostly from the recommended homework problems (though the numbers will be changed slightly). Your lowest 2 quiz-grades will be dropped and the other 10 will be averaged together to obtain your quiz grade. The quiz grade is worth 20% of your overall grade.

The midterms will be administered on September 27 and November 8 in class. Each test is worth 25% of the course grade. The midterms are not cumulative and will cover only the material since the previous test. If students miss one of two midterms (or do bad on midterms), you can take a make-up midterm covering both midterms 1 and 2 (worth 25%) on December 6 from 6:00 to 7:00. This is the sole make-up opportunity.

The final exam is scheduled for December 19 (Tuesday) from 1:30 to 4 pm. The final exam is worth 30% of your grade and will consist of two parts. A "midterm" sized section will cover all of the material after second midterm and be worth 15% of your grade in the course. The rest of the final will cover material from the entire course. No make-up tests will be given for final unless you talk to the instructor in advance.

- 12 Quizzes (Drop lowest 2) – 20% total
- 2 Midterms – 25% each
- Final – 30% (15% for materials after midterm 2, 15% semester-cumulative materials)

Final grading will be on a strait scale but I reserve the right to curve the grades.

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

Tentative Course Schedule:

Week of	Course Material	Topics	Wednesday Quiz/Exam
8/28	1.1, 1.2, 1.3	Algebra Basics	Pretest
9/4	1.4, 1.5,1.6,	Fractions and Inequalities	Quiz 1
9/11	1.7, 2.1, 2.2,	Simple Equations	Quiz 2
9/18	2,3, 2.4, 2.5	Radicals, Equations in One Variable	Quiz 3
9/25	*Midterm 1* 3.1, 3.4	Logic and Mathematical Proofs	Midterm 1 (9/27)
10/2	3.5, 3.6, 3.7	Essentials of Set Theory	Quiz 4
10/9	4.1, 4.2, 4.3	Functions of One Variable	Quiz 5
10/16	11.1, 4.4, 4.5	Functions of 2 variables; Linear Function	Quiz 6
10/23	4.6, 4.7, 4.8	Quadratic, Polynomial and Power Function	Quiz 7
10/30	4.9, 4.10	Exponential & Logarithmic Functions	Quiz 8
11/6	Midterm 2 5.1, 5.2,	Shifting Graph and Functions Transform	Midterm 2 (11/8)
11/13	5.3, 5.4	Inverse Functions	Quiz 9
11/20		*Fall Break & Thanksgiving!*	
11/27	5.5, 5.6	General Function	Quiz 10
12/4	6.1, 6.2	Slopes of Curves, The Derivative	Make-up midterm (12/6), Quiz 11
12/11	6.3, Review	Increasing/Decreasing Functions	Quiz 12
	Final Exam on Dec 19th from 1:30-4 pm		

Honor Code:

 All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this