



UNIVERSITY OF TORONTO

Department of Economics
St. George Campus
ECO 1010: Math-Stats Review for MA and MFE Class
Fall 2010

Nec Aspera Terrent

[Academic Integrity](#) | [Announcements](#) | [Class & Tutorial Times and Locations](#) | [Course Description](#) | [Course Material](#) | [E-mail Instructor](#) | [E-mail TA](#) | [Instructor](#) | [Lectures & HW](#) | [Office](#) | [Office Hours](#) | [TA](#) | [Telephone](#) | [Test Dates & Times](#) | [U of Toronto Search Engine](#) |

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Lectures & Tutorials:

Lectures	Tutorials
Mon - Fri 10 am – 1 pm in ES B 142 Please see calendar for changes Attendance is mandatory	Tue & Thu 2 – 4 pm in ES B 142 Please see calendar for changes Attendance is mandatory

Optional Course Materials:

- [Martin Osborne's Math Tutorial](#)
- A. K. Dixit *Optimization in Economic Theory*
- A. C. Chiang *Fundamental Methods of Mathematical Economics*
- W. H. Greene, *Econometric Analysis*
- R. V. Hogg & A. T. Craig, *Introduction to Mathematical Statistics*
- [Graduate Economics Lecture Notes](#)

Grading Scheme:

- 45% Math Test
- 45% Stats-Econometrics Test
- 10% Attendance

Course Description

This course is for incoming regular MA and MFE students. The first portion of the course focuses on the following math topics: unconstrained, equality constrained, inequality constrained optimization, the envelope theorem, (quasi) concavity, (quasi) convexity, matrix algebra and time permitting optimal control and dynamic programming. The second portion of the course focuses on the following stats-econometrics topics: probability theory, random variables, probability and cumulative distribution functions, probabilistic processes (such as Normal, Poisson, Bernoulli etc), Central Limit Theorems, parametric hypotheses and tests, and econometric analysis (a matrix approach).

In exceptional circumstances, a regular stream MA student may be permitted to take the Math and Stats review for PhD and MA Doctoral Stream Students, ECO1011H1F. In these particular cases, written permission from the Graduate Director is required prior to starting ECO 1010. All queries should be directed to the Director of Graduate Studies, Professor Martin Osborne (osborne@chass.utoronto.ca).

Academic Integrity

Academic integrity is one of the cornerstones of the University of Toronto. It is critically important both to maintain our community which honors the values of honesty, trust, respect, fairness and responsibility and to protect you, the students within this community, and the value of the degree towards which you are all working so diligently. According to Section B of the University of Toronto's [Code of Behaviour on Academic Matters](#) which all students are expected to know and respect, it is an offence for students:

- To obtain unauthorized assistance on any assignment.
- To provide unauthorized assistance to another student. This includes showing another student completed work (e.g., an answer in a test).
- To falsify or alter any documentation required by the University. This, includes, but is not limited to, doctor's notes.
- To use or possess an unauthorized aid in any test or exam.

There are other offences covered under the Code but these are by far the most common. Please respect these rules and the values which they protect.

Lectures, HWs & Test Dates

August 2010

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	
8	9	10	11	12	13	
15	16	17	18	19	20	
22	23	24	25	26	27	
	<u>Lecture 1</u>	<u>Lecture 2</u> Tutorial 1 <u>HW 1</u>	<u>Lecture 3</u> MFE Excel Class (6.30 – 8.30) GE 100	<u>Lecture 4</u> Tutorial 2 <u>HW 2</u> <u>HW 2 Solutions</u>	KT Practice Problems <u>Practice Problems</u> <u>(Solutions)</u>	
29	30	31				
	<u>Lecture 5</u> Lecture noon – 2.30 pm <u>Matrices at a Glance</u>	Tutorial 3 <u>HW 3</u>				

September 2010

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			<p style="text-align: right;">1</p> <p><u>Lecture 6</u></p> <p>Lecture noon – 2.30 pm</p>	<p style="text-align: right;">2</p> <p>Tutorial 4</p> <p><u>HW 4</u></p>	<p style="text-align: right;">3</p> <p>Math Test 2 – 4 pm in <u>WI 1016</u></p> <p><u>2008 Math Test</u></p> <p><u>2009 Math Test</u> "Zero" (Day 1 Test)</p> <p><u>2009 Math Test</u></p> <p><u>2009 Math Test</u> Solutions</p> <p><u>2009 Math Test</u> Practice Problems</p> <p><u>2009 Math Test</u> Practice Problems Solutions</p>	
5	6 NO CLASS	7 <u>Lecture 7</u> (10 am – 12:30) <u>Lecture 8</u> (2 – 4 pm)	8 (10 am – 1 pm) Tutorial 5 <u>HW 5</u> <u>Lecture 9</u>	9 (10 am – 1 pm) Tutorial 6 <u>HW 6</u> <u>Lecture 10</u>	10 Stats-Econometrics Test 2 – 4 pm in <u>RW 110</u>	
12	13	14	15	16	17 <u>2009 Stats Test</u> <u>Stats Practice</u> Problems	

19	20	21	22	23	24	
26	27	28	29	30		