Optimized for widescreens For feedback, comments and suggestions e-mail us at economics204@gmail.com or call us at (617) 855 - 8204



Nec Aspera Terrent

Department of Economics St. George ECO 204: Microeconomic Theory for Commerce Summer 2011

Quick Links Academic Integrity Academic Success Center Announcements Course Description Course Material Detailed Course Plan E-mails E-Mail Policy Group Information Form Instructor Info Micro in the News Office Hours | Papers Info | Some Past Tests | TA Info | Tests info | Test Remark Request Form | University of Toronto Search Engine | Writing Centers at University of Toronto |

Course Announcements and Micro in the News

Micro in the News Join the Micro in the News Group @ Facebook F

Bloomberg | Business Week | Economist | Economist Data | Financial Times | Globe & Mail Biz | Wall Street Journal

 Following similar proposals in NY and Ontario, MA plans to impose a tax of soda to reduce "harmful consumption" of sugar. How high must these taxes be to impact consumption? Is it better to reduce or eliminate harmful consumption? We'll investigate these issues in consumer theory

Course Announcements Get announcements through Twitter: follow @ajazeco204

- Tests rooms have been booked. Please see <u>Tests info</u> section below

Course Description

This is a course in intermediate microeconomic theory with an emphasis on commerce models, applications and topics. We will apply rigorous microeconomic theory, optimization methods (especially Lagragian and Kuhn-Tucker methods) and Excel-based tools (such as Solver) to business problems based on real life cases, data and economic/business phenomena. Examples of business applications based on actual data include: activity based costing for contribution analysis, market segmentation analysis for Infiniti cars, marginal cost industry supply curve of the primary aluminum industry, pricing bundled products for McDonalds, financial portfolios of short term US Treasury bonds and stocks, and game theoretic analysis of price wars for Nutrasweet. The material, concepts, tools, techniques and models in ECO 204 are critical to your education and career. Almost every one of your future courses at <u>Rotman</u> -- ranging from finance and marketing to accounting and operations -- are rooted in microeconomics, and the microeconomic paradigm is intensively used in business cases and problems.

It is important that you understand that ECO 204 is an iterative course in the sense that each topic builds upon previous topics. Microeconomic analysis is multi-layered, deep and interconnected and takes time to master, requiring *you* to integrate the various tools, techniques and areas of microeconomics. Put another way, you cannot master microeconomics, nor perform well in the course, by cramming for tests and exams, or writing a paper in "one shot". To do well in this course, you must attend lectures and tutorials and practice problem solving, case analysis and Excel modeling through weekly problems sets posted in the <u>course plan</u> section below. I will post lecture slides before each class in <u>course plan</u> section below and you are expected to download lecture slides and bring these to class. Please don't treat the lecture slides as class notes; rather, lecture slides are teaching aids. You are expected to take class notes and within a day to integrate your class notes with the lecture slides, HWs and practice problems in the ECO 204 "Book Chapters" posted in the <u>course plan</u> section below. Please note that solutions to HWs will *not* be posted; instead, the TA will go over these problems in tutorials to show you how to *think* through problems. As such, you must struggle on your own first rather than simply looking at the solutions. If you struggle on your own, you will gain a deeper understanding of the material.

We will cover the following topics:

- > Optimization: Lagrangian and Kuhn-Tucker optimization methods, envelope theorem
- Consumer Theory
- Decision making under uncertainty
- Consumer-Producer theory
- Producer Theory
- Cost Analysis
- Econometrics
- Perfect Competition
- > Monopoly
- Price discrimination
- > Topics in pricing: uncertainty, yield management, transfer pricing
- > Oligopoly
- Financial portfolios
- Public goods
- Regulation
- Information
- Principal-agent
- Game theory

Course Staff

Instructor: Ajaz Hussain

Lectures: Tuesdays and Thursdays, 10 am - 1 pm in MP 137

Office Hours: Tuesdays, 3 – 5 pm in GE 212. Office: GE 212, Economics Department, 150 St. George Street **Phone:** +1 (416) 978 – 4965 E-mails: sayed.hussain@utoronto.ca , Ajaz.hussain@rotman.utoronto.ca For all "administrative" matters please contact the TA

TA: Asad Privo

Tutorials: Fridays, 10 am – 1 pm in MP 137 Office Hours: Thursdays 3 – 5 pm in GE 213 ECO 204 Google Phone #: +1 (617) 855 - 8204 E-mail: Economics204@gmail.com

E-mail Policy

- For all "administrative" matters please contact the TA through e-mail Economics204@gmail.com, or office hours (Thursdays 3 5 pm at GE 213), or during tutorials in MP 137
- Email is not an appropriate forum for discussing details which is why we have set aside office hours. That said, email can be helpful on occasion, and within limits. Accordingly, we will endeavour to reply to email within 24 hours, except on weekends, with the following provisions:
 - The question should require a one (or two) sentence response (maximum). If it takes more, office hours are the more appropriate venue;
 - We won't answer questions about Excel (or computing more generally). Such questions should be discussed in my, or the TA's, office hours.
 - We won't answer emails requesting information that can be found on the website or the syllabus;
 - We will not reply to emails concerning grading. For such matters, office hours are more appropriate.
- It is also (strongly) preferable that you use a UT or onto email address: University policy stipulates a preference for these email addresses. Always identify yourself in your email; please do not send attachments of any kind; and please do not submit term work by email.

Lectures, Tutorials and Office Hours

Attendance is mandatory in all lectures & tutorials

Lectures	Tutorials	Instructor Office Hours	
Tuesdays and Thursdays	Fridays	Tuesdays	
10 am – 1 pm in <u>MP</u> 137	10 am – 1 pm in <u>MP</u> 137	3 – 5 pm in <u>GE</u> 212	

Course Material

"Lectures": ECO 204 lecture slides Required

TA Office Hours Thursdays 3 – 5 pm in GE 213

- Posted midnight before lecture in course plan section
- You are expected to print and bring lecture slides to class in order to take notes.
- You can choose the number of slides per page to be printed by going to Print \rightarrow Print Properties
- [Optional] Useful site for plots and calculations (equations, algebra, matrices, derivatives, integrals, etc.): Wolfram Alpha

"Textbook": ECO 204 chapters

Required

- Posted regularly in course plan section
- The chapters contain practice problems with highly detailed step by step solutions •
- [Optional] Useful site for plots and calculations (equations, algebra, matrices, derivatives, integrals, etc.): Wolfram Alpha

Excel 2007 or 2010

Required

- Please add-in the Developer Tab and Data Analysis (VBA) and Solver tools (instructions)
- We do not recommend using Excel on Apple machines (even if you're running Windows)

ECO 204 Excel Models Spreadsheet

Required

- Updated with each lecture, HW and chapter and posted in <u>course plan</u> section
- New worksheets will be continuously added so be sure to download the latest version (download the Model from the latest lecture)
 - Please "enable macros" if prompted
- Having problems downloading the Excel Model? Solution 1: Don't use Microsoft's Internet Explorer; instead try using another browser such as Firefox. Solution 2: Download the file and change the file extension from .zip to .xlsm. For example if the file name reads model.zip click on the file name once, and change ".zip" to ".xlsm".

HBS Cases

Required

The following cases can be purchased from Harvard Business School Press. To purchase, click here, register as a student, pay by credit card, and download the pdf files to your computer

- The Prestige Telephone Company •
- Competitor Analysis: Anticipating Competitive Actions
- Bitter Competition: The Holland Sweetener Co. vs. NutraSweet (A)
- The Aluminum Industry in 1994 (Click here for the Cost data for all 157 primary aluminum smelters in the case (password: quasifixed)

Supplementary Textbooks & Manuals

Optional

Test and exam questions will not be drawn from, or be similar to, the supplementary texts below

- Introduction to Economic Analysis, Preston McAfee (free)
 - Applied Theory of Price, Donald McCloskey (free)
- *Microeconomics* (3rd Edition), Besanko & Braetigam (BB) (Available at Robarts Library Short Term Loans Desk)

 Martin Osborne's Math Tutoria

- The Elements of Style, William Strunk 3rd
 - The Case Study Handbook

Course Evaluation

Please see test and paper policies below.

Grade Component	Due Date
Test 1 = 15%	Friday, June 3 rd , 6 – 8 pm in <u>WI 1017</u> Please bring U of Toronto ID and a scientific calcu If you have a direct conflict with the test you <i>must</i> inform Asad Priyo by <u>ema</u>
Test 2 = 15%	Friday, June 24 th , 6 – 8 pm in <u>WI 1017</u> Please bring U of Toronto ID and a scientific calcu If you have a direct conflict with the test you <i>must</i> inform Asad Priyo by <u>ema</u>
Test 3 = 15%	Friday, July 22 nd , 6 – 8 pm in <u>WI 1017</u> Please bring U of Toronto ID and a scientific calcu If you have a direct conflict with the test you <i>must</i> inform Asad Priyo by <u>ema</u>
Group Paper and Excel Model = 5%	Submit <u>group information form</u> (electronically fillable) on Friday, June 3 rd through "Grou Submit soft copy of paper through <u>Turnitin</u> "group paper" by r (course ID: <i>4020816</i> , password: <i>quasisummer</i> . One submis Submit hard copy of paper and a CD with Excel model at the beginnin One submission per group
Individual Paper and Excel Model = 5%	Submit soft copy of paper through <u>Turnitin</u> "individual paper" by r (course ID: <i>4020816</i> , password: <i>quasisumme</i>) Submit hard copy of paper and a CD with Excel model at the beginnin
Cumulative and Comprehensive Makeup Test = Value of all missed tests (Conditional on approval by instructor. Please see notes below) Cumulative and Comprehensive Final Exam = 45%	Friday, August 12 th , 4 – 6 pm in <u>GE</u> 213 Please bring U of Toronto ID and a scientific calcu

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Group Paper Assignment" tab on Blackboard. by midnight, July 8th nission per group) nning of the tutorial section.

by midnight, August 5th ner) nning of the tutorial section.

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Tests and Exam Policies

- All tests are scheduled on Fridays from 6 8 pm and in WI 1017. See dates above. Actual test time is from 6:10 pm 8 pm. •
- You must be at the exam room by 6 pm sharp. You will not be given extra time if you're late.
- If you have a direct conflict with a test, you must email the head TA Asad Privo one week before the test to make alternative arrangements (for example, taking the test earlier in the day) ٠
- You must show your U of Toronto ID and sign the "signup sheet" and stay seated until all tests have been collected and counted. The proctor will tell you when you can leave the room. •
- It is your responsibility to write your name and ID # on tests as they appear in ROSI. Failure to do so will result in a 10 point penalty per incident (the penalty is not 10% of your score but rather • 10 points put of 100).
- A grade of zero will be given to students who do not write a test, unless an appropriate and convincing note is received by the instructor within 3 calendar days of the missed test explaining ٠ why the test was missed and the student passes a ½ oral exam administered within 3 business days of the test (see below). If the test was missed due to an illness then the note must be provided using an original University of Toronto medical certificate (photocopies or emailed certificates will NOT be accepted). The note must clearly state that on the date of the test, the student was too sick to write the test and must list the physician's OHIP number. Illness before the test is not sufficient grounds for missing the test nor statements that the student would have performed "sub-optimally." To comply with these requirements, it is expected that the student will have met with the doctor on the date of the test. I will review each sick note and conduct a ½ hour oral exam (see below) to determine whether there are sufficient grounds for a student to be excused from a test. Part of this review process may include following up with the physician. It is an academic offence to feign illness to avoid a test. Notes from acupuncture clinics, chiropractors, "health care professionals" will not be accepted.
- If a student has been excused from a test by the instructor he or she will be permitted to write a single, comprehensive, cumulative make-up test, provided that I am satisfied with the • explanation for why the student missed the test and the student convinces me through a ½ hour oral exam administered within 5 (calendar) days of the test that he/she was prepared for the test. If these two conditions are satisfied, the student will be allowed to take a make-up test on Friday, August 12th, 4 – 6 pm in GE 213. The makeup test covers all material in the course through to the make-up test date. The make-up test will be worth the value of all missed tests. Consistent with university policy, there is no "make-up" test for the make-up test. No medical excuses will be accepted for missing the makeup test and a grade of zero will be applied.
- For all term tests, if students wish to appeal a grade, they must provide a written explanation using the Test Remark Request form (electronically fillable) for why they believe their grade is • mistaken, and submit the signed form and test in person to the Head TA Asad Privo within one week of the tests being returned to the class.
- Some students tend to study for tests and exams by first looking at previous tests and exams. This strategy only works if the instructor, for whatever reason, repeats or varies questions from • previous tests and exams. ECO 204 tests and exams do not repeat questions from previous tests and exams. Rather, ECO 204 tests and exams questions are designed to test your understanding of the material and techniques. You should strive to understand the general method and techniques and not memorize details of particular questions from past tests. Often, you'll be tested on whether you can apply concepts and techniques to problems you've never seen before. Memorizing solutions to old problems will not give you the tools to solve a new problem. Instead, you need to understand the techniques and model and develop a "thinking cap" by synthesizing previous problems with microeconomic tools and models. As such, the best way to prepare is not by doing old problems and hope that you have covered "everything". In this respect, HW and practice problems are critical for success in ECO 204 bearing in mind Jenn Murdock's advice to students:

- "Inappropriate use of the solutions is dangerous for your marks. Assigned problems are designed to help you build skills and to deepen your understanding of the course material. One important skill is being able to figure out a solution approach to a problem that you have not seen before. This skill is routinely tested. By looking at the solutions before you have made every effort to solve the problem yourself, including going back to study your lecture notes and the textbook, you are robbing yourself of a valuable opportunity to practice. After you finish a problem, look at the guestion again and your answer and think about how this fits into the course, what concepts you used and what assumptions you made". [Source]
 - If you're having problems in the course, please know that we are always ready to help you provided you approach us in time. Do not delay asking for help.
 - Procedures for appealing course marks are outlined <u>here</u>

Papers Policies

- Please submit group information form (electronically fillable) on Friday, June 3rd through "Group Assignment Tab" at Blackboard.
- Group paper: submit soft copy of paper through Turnitin "group paper" by midnight, July 8th (course ID: 4020816, password: guasisummer). Submit hard copy of paper and a CD with the Excel • model at the beginning of the tutorial section. Penalty for putting ID #s: 5 points. One submission per group. No ID #s anywhere in the paper or Excel model. Penalty for late submissions: 25% for each day after deadline. It is your responsibility to write your names papers as it appears in ROSI. Failure to do so will result in a 5% penalty per incident
- Individual paper: submit soft copy of paper through Turnitin "individual paper" by midnight, August 5th (course ID: 4020816, password: quasisummer). Submit hard copy of paper and a CD with • the Excel model at the beginning of the tutorial section. Penalty for late submissions: 25% for each day after deadline. It is your responsibility to write your name and ID # on the paper as it appears in ROSI. Failure to do so will result in a 5% penalty per incident
 - All written work must be submitted for review through www.turnitin.com. Disclaimer concerning Turnitin.com: Students agree that by taking this course all required papers will be subject to submission for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. The terms that apply to the University's use of the Turnitin.com service are described on the Turnitin.com web site.

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 Behavior 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. 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.

Some Past Tests & Final Exams

Solutions to Final Exams are not available to students; however, many final exam questions have appeared and will appear in HW problems en studying for tests and exams you are strongly encouraged to begin with lectures, HWs, and chapters and only then should you do past tests and final exams. Starting with tests and final exams is a recipe for doing poorly in ECO 2

ECO 204 2010 - 2011

• Test 1 (Test 1 Solutions) • Test 2 (Test 2 Solutions) • Test 3 (Test 3 Solutions) • Final Exam (Solutions NA)

ECO 204 Summer 2010

• Test 1 (Test 1 Solutions) • Test 2 (Test 2 Solutions) • Test 3 (Test 3 Solutions) * Final Exam (Solutions NA)

ECO 204 2009 - 2010

• Test 1 (Test 1 Solutions) • Test 2 (Test 2 Solutions) • Test 3 (Test 3 Solutions) • Final Exam (Solutions NA)

ECO 204 Summer 2009

• Test 1 (Test 1 Solutions) • Final Exam (Solutions NA)

ECO 204 2008 - 2009

• Test 1 (Test 1 Solutions) • Test 2 (Test 2 Solutions) • Test 3 (Test 3 Solutions) • Test 4 (Test 4 Solutions) • Final Exam (Solutions NA)

Detailed Course Plan and Schedule

 April 		June 🕨				
Sun	Mon	Tue	~ May 2011 ~ Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14

▲ April~ May 2011 ~SunMonTueWed1516171819Lecture 1Lecture 2ECO 204 Excel ModelsECO 204 Excel ModelsHBS case: The Prestige Telephone CompanyECO 204: Chapter 1 (draft #2; draft #3 coming soon)ECO 204 Excel Models	Fri 20 Tutorial 1 <u>HW 1</u> HBS case: The Pr Telephone Comp
Lecture 1 Lecture 2 ECO 204 Excel Models HBS case: The Prestige Telephone Company ECO 204: Chapter 1 (draft #2; Telephone Company	20 Tutorial 1 <u>HW 1</u> HBS case: <i>The Pr</i>
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ECO 204: Chapter 1 (draft #2;	
draft #3 coming soon) <u>ECO 204 Excel Models</u>	Telephone Com
ECO 204: Chapter 1 (draft #2; draft #3 coming soon)	
TA Office Hours	
3 – 5 in <u>GE</u> 213	
22 23 24 25 26	27
Lecture 3 Lecture 4	Tutorial 2
Ajaz Office Hours TA Office Hours	<u>HW 2</u>
3 – 5 in <u>GE</u> 212 3 – 5 in <u>GE</u> 213	
	DEADLINE to let As if you have a direct
	with Test 1.
	Please <u>email</u> Asad
	name, ID # and rea conflict.
29 30 31 Note	es:
Lecture 5	
Ajaz Office Hours 3 – 5 in GE 212	

 ▲ <u>May</u> 	~ June 2011 ~				
Sun	Mon	Tue	Wed	Thu	Fri

	June 🕨
Prestige npany	June ► Sat 21
sad know t conflict with your ason for	28



◄ <u>May</u>			~ June 2011 ~			<u>July</u> ►
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
				Lecture 6	Tutorial 3	
				$\frac{\text{TA Office Hours}}{3-5 \text{ in } \frac{\text{GE}}{213}}$	HW 3	
					Deadline to submit group	
					information form through "Group Assignment Tab" on	
					Blackboard	
					Test 1: 6 –8 pm in <u>WI 1017</u>	
					Please bring U of T ID and a scientific calculator	
					Test Remark Request form	
					(electronically fillable)	
5	6	7	8	9	10	11
		Lecture 7		Lecture 8	Tutorial 4	
		Ajaz Office Hours		<u>TA Office Hours</u> 3 – 5 in <u>GE</u> 213	HW 4	
		3 – 5 in <u>GE</u> 212		3 – 5 m <u>GE</u> 213		
12	13	14	15	16	17	18
		Lecture 9		Lecture 10	Tutorial 5	
		<u>Ajaz Office Hours</u> 3 – 5 in <u>GE</u> 212		<u>TA Office Hours</u> 3 – 5 in <u>GE</u> 213	HW 5	
					DEADLINE to let Asad know	
					if you have a direct conflict with Test 2.	
					Please email Asad with your	
					name, ID # and reason for conflict.	

◄ <u>May</u>		<u>July</u> ►				
Sun	Mon	Tue	Wed	Thu	Fri	Sat
19	20	21	22	23	24	25
		Lecture 11		Lecture 12	Tutorial 6	
		<u>Ajaz Office Hours</u> 3 – 5 in <u>GE</u> 212		<u>TA Office Hours</u> 3 – 5 in <u>GE</u> 213	HW 6	
					Test 2: 6 – 8 pm in <u>WI 1017</u>	
					Please bring U of T ID and a	
					scientific calculator	
					Test Remark Request form (electronically fillable)	
26	27	28	29	30	Note	es:
	Reading Week	Reading Week	Reading Week	Reading Week	No classes or tutorials during	eading week

 ✓ June 			~ July 2011 ~			<u>August</u> ►
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
					Canada Day: No Tutorial	
3	4	5	6	7	8	9
		Lecture 13		Lecture 14	Tutorial 7	
		Ajaz Office Hours 3 – 5 in <u>GE</u> 212		$\frac{\text{TA Office Hours}}{3-5 \text{ in } \underline{\text{GE}} 213}$	HW 7	
					Hard copy of group paper and Excel model due at	
					beginning of tutorial session	
					Soft copy of group paper should be submitted through	
					<u>Turnitin</u> course ID: 4020816,	
					password: quasisummer	

 ✓ June 			~ July 2011 ~			<u>August</u> ►
Sun	Mon	Tue	Wed	Thu	Fri	Sat
10	11	12	13	14	15	16
		Lecture 15		Lecture 16	Tutorial 8	
		<u>Ajaz Office Hours</u> 3 – 5 in <u>GE</u> 212		<u>TA Office Hours</u> 3 – 5 in <u>GE</u> 213	HW 8	
					DEADLINE to let Asad know	
					if you have a direct conflict with Test 3.	
					Please email Asad with your	
					name, ID # and reason for conflict.	
17	18	19	20	21	22	23
		Lecture 17	Final Exam Schedule	Lecture 18	Tutorial 9	
		<u>Ajaz Office Hours</u> 3 – 5 in <u>GE</u> 212	Posted on <u>A & S Exam</u> <u>Website</u>	<u>TA Office Hours</u> 3 – 5 in <u>GE</u> 213	HW 9	
					Test 3: 6 – 8 pm in <u>WI 1017</u> Please bring U of T ID and a	
					scientific calculator	
					Test Remark Request form	
					(electronically fillable)	
24	25	26	27	28	29	30
Last day to drop the course without academic and GPA		Lecture 19		Lecture 20	Tutorial 10	
record		<u>Ajaz Office Hours</u> 3 – 5 in <u>GE</u> 212		$\frac{\text{TA Office Hours}}{3-5 \text{ in } \frac{\text{GE}}{\text{GE}} 213$	HW 10	
31			Not	es:		

✓ <u>July</u>		~ August 2011 ~				
Sun	Mon	Tue	Wed	Thu	Fri	



 ✓ July 		<u>September</u> ►				
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2 Lecture 21	3	4 Lecture 22	5 Tutorial 11	6
		Ajaz Office Hours 3 – 5 in <u>GE</u> 212		<u>TA Office Hours</u> 3 – 5 in <u>GE</u> 213	HW 11	
		3 - 3 III <u>OL</u> 212			Individual paper and Excel model due at beginning of tutorial session.	
					Soft copy of individual paper should be submitted through <u>Turnitin</u> course ID: 4020816, password: quasisummer	
7	8	9	10	11	12	13
		Lecture 23		Lecture 24	Tutorial 12	
		<u>Ajaz Office Hours</u> 3 – 5 in <u>GE</u> 212		$\frac{\text{TA Office Hours}}{3-5 \text{ in } \underline{\text{GE}} 213}$	HW 12	
					If necessary, cumulative and comprehensive makeup test in <u>GE</u> 213, 4 – 6 pm	
					Please bring U of T ID and a scientific calculator	
14	15	16	17	18	19	20
21	22	23	24	25	26	27

✓ <u>July</u>		<u>September</u> ►					
Sun	Mon	Tue	Wed	Thu	Fri	Sat	
28	29	30	31	Notes:			
				There will be extra office hours and a review session for the final exam. Dates and location TBA.			