Syllabus: Microeconomic Theory / Econ 230

September 17, 2019

General Information

Professor Fabian Lange
Email: fabian.lange@mcgill.ca
Office: Leacock 511
Office Hours: Tuesdays 1-2:30pm.

Course Location: Bronfman Building 151
Meeting Times: Monday / Wednesday 1:05-2:25pm


Teaching Assistants:

Kaushil Patel (kaushil.patel@mail.mcgill.ca)
Cristian Stratica (cristian.stratica@mail.mcgill.ca)

The TAs will hold review session every week, starting in the second week of class.
Thursday 10:05-11:55, Cristian Stratica, Leacock 520
Friday 2:05-3:55pm, Kaushil Patel, Leacock 424

In these sessions, the TAs will answer questions, review practice questions, and will teach some of the basic mathematical tools needed at an introductory level.
1 Overview

This is the first of a two-semester course introducing you to basic microeconomic theory. The first semester focuses on the neoclassical economic model of market exchange. This model provides a framework for thinking about how choices of individuals and firms determine prices and output. It, like all models, abstracts from the complexity of the world and can not be strictly true. Much modern economic research examines what happens if its assumptions are violated. We concentrate on the neoclassical model, since it provides an extremely powerful tool for policy analysis and because, either by rejecting it or by building upon it, it forms the basis of all modern economics.

During the fall term, I will introduce you to basic decision theory. You will learn what economists mean by rational decision making. You will see how rational consumers decide between alternative uses of their resources. You will learn about how profit maximizing firms behave in competitive markets. Finally, we will consider how the price system in a system of markets coordinates the actions of consumers and firms in idealized markets without frictions. We begin by considering individual markets in isolation and we will then consider how markets for different goods interact.

A major goal of this course is to show you how you can use models to make your reasoning more precise and clear. Models are powerful tools that allow you to strip away detail that impede understanding. Students will learn how to manipulate models and how to move between mathematical, diagrammatic, and verbal representations of these models. A major teaching goal is to provide students with some of the technical tools that allow them to manipulate mathematical models. As such the class will necessarily be heavy on math.

If you don’t like my teaching style, you might consider the other section of Econ 230 taught this semester by Dr. Zhang.

The spring term will be taught by Dr. Hassan Benchekroun.

2 Communication

I will rely on myCourses to communicate with you. One requirement is to check myCourses everyday for announcements.

How do I ask a administrative question?
With all issues, first contact the TAs. They will communicate important matters
to me.

**How do I ask a question about the subject matter?**

If you have a question about the subject matter, then you should follow this approach:

1. Speak out in class!
2. Begin by asking one of your colleagues. The most valuable resource you have for learning are your colleagues.
3. Email the TAs. They will answer easy questions first and will forward the more relevant questions to me.
4. If steps 1 through 3 fail: Come to my office hours.

In addition, you can use the discussion section on mycourses to ask questions. The TAs and I will strive to regularly check this venue and answer questions. And, you might get good feedback from your colleagues.

### 3 Course Materials

**Textbook and Online Homework Package**

We will use the following book during both terms of Econ 230: PERLOFF / MICROECONOMICS, 8th edition.

The book is available at the bookstore (loose leaf).

You can get the book at the bookstore or purchase it online. To complete your homework, you are required to register with MyEconlab, the homework package associated with the textbook. **You absolutely need to register on Mylab prior to class on Sept. 23.** Instructions for how to register are in mycourses.

You will need (i) a student ID (ii) an email account (iii) a new textbook, a credit card, or a paypal account.

Sometimes there are problems with registering that take a few days to be resolved. This means that you should not wait till Sept. 22st to try to register, but rather get to it right away. I will post information for how to register on mycourses.
Course Recordings

The audio of the morning lecture (Session 001) will be recorded to allow you to review the material. A link will be available on myCourses. These are audio recordings so you will not be able to see anything that I put on the board in class. Also, at times the audio might not be available because of technical issues or because I forget to use the microphone. Therefore, I recommend not relying exclusively on the audio-recordings, but rather come to class.

Polling

This class will use in-class polling to enhance participation and interactivity. During a class with polling questions, you will respond to questions from the instructor from a personal device (smartphone, tablet, or laptop). Please come to class with your devices charged and connected to the internet.

You must first register for an account by clicking on Register Your Account at www.mcgill.ca/polling and logging in with your McGill username and password. Follow the prompts to agree to the terms of use and create your account. For more information, please visit the Getting Started for Students section at www.mcgill.ca/polling. For any technical problems with polling, please contact the IT Service Desk: http://www.mcgill.ca/it/get-started-it/need-help. If you do not have a phone, tablet, or laptop to use to respond to polling questions, please contact the instructor immediately in order for appropriate arrangements to be made.

4 Course Requirements and Grading

I expect you to:

1. Check myCourses and myEconlab regularly.
2. Do the assigned readings before you come to class.
3. Come to and participate in class.
4. Do your homework and come to the exams.
5. Get help from the TA if you don’t understand something.
Homework

I will assign homework through myEconlab. In addition, I will also at times assign questions that I expect you to solve and bring to class. I will randomly collect some of the answers and grade those as part of the homework grade. There will be one set of problems due every week on Friday, starting Friday, Sept. 13.

Midterm and Final Examination

There will be two midterms. The first midterm covers the basic Supply and Demand material and will be held on Sept 18th in class. It is relatively short and counts for 10% of your total grade. The second midterm will be held on Oct. 23rd in class and is longer. It counts for 25% of your grade. Midterm and Finals will be multiple choice with the possible addition of a few questions in long form. As such they align well with the homework. If you miss the midterm, then your grade for the winter term will be based exclusively on the homework and quizzes as well as the final exam. You will have to present me with a doctors note to be excused from the final exam, in which case you will have to take a make-up exam. If only a few students require a make-up exam, then I might choose this make-up exam to be an oral exam. I strongly recommend not missing the final exam.

This course has two sections. This Section is Econ 230-001. You are not allowed to write the final exam of the other Section, but are responsible to write the exam for this section. If you end up writing the exam of the other section, it will not be graded.

Grading

Each semester contributes 50% to your final grade. There are no exceptions, except transfers from ECON250. The two semester grades will be averaged to arrive at the full-year grades. For the fall semester, 15% of the final grade are based on homework. 10% is based on the first midterm and 25% on the second midterm. 45% on the final, and 5% on class participation. The class participation grade will be largely based on the in-class polling data collected after the add/drop period.

Supplemental exams for those eligible will cover material from both Econ 230D1 and Econ 230D2 and will be held during the summer following Econ
230 D2. Supplemental exams are not given for individual semesters only. Students taking the supplemental exam should be aware that it counts for 100% of the students grade in the two-semester course.

In the event of extraordinary circumstances beyond the University’s control, the content and/or evaluation scheme in this course is subject to change.

Transfers from Econ 250D

There are two time-windows when transfers from Econ 250D to 230D are permitted.

Window 1 is up to the end of the week after the second D1 midterm. For students using this window, the course grade depends solely on your performance in 230D. Your grade in D1 will depend on the final in 230D1 only.

Window 2 is up to the January add/drop period in the winter semester. For students using this window, the grade for 230D1/D2 will be composed of 25% for the 250D1 Fall semester and 75% for the 230D2 Winter semester.

5 Course Outline

This course outline is tentative. I reserve the right to change the content of the class and/or the pace at which we progress. Obligatory reading is marked with a star. I will update the due-date for these readings as I go along.

Lecture 1 and 2 (September 4, 9) Introduction, Methodology

The first one or two lectures will provide an overview of the course content and the methods used by economists.

Readings:

1. Methodology in Economics:


   (b) Thomas Mayer, Friedman’s Methodology of Positive Economics: A Soft Reading, Economic Inquiry; Apr. 1993; 31, 2. (available on myCourses)
Lecture 3-5 (September 11, 16, 18)

Homework 1 due on September 11, prior to class. Please bring a hard copy to class - a subset of students will be asked to submit this hard copy.

Midterm 1: In class on September 18!
NOTE that The regular add/drop deadline is on Sept. 17 and the final deadline for withdrawing from the course with full refund is on Sept. 24.

* Pearson Chapter 2 and 3


“Betting on the Apocalypse”, Paul Sabin in NYTIMES Sunday Magazine Sept 8, 2013. (see myCourses)

*Watch Ken Train’s second lecture on Supply and Demand at “http://freevideolectures.com/Course/2965/Introduction-to-Economics-Fall-2011/3”


Lecture 6 (September 23): A Review of Basic Mathematical Ideas – Introduction to Optimizing Functions

*Due September 23] Introduction to Calculus: https://www.mathsisfun.com/calculus/derivatives-introduction.html
The standard economic model is populated by decision makers that maximize some goals. For this they trade-off the costs and benefits of their actions to maximize their pay-offs. A consumer might have to choose between consuming more of one consumption good (say beer) at the expense of another (pizza) so as to maximize their individual satisfaction. A firm might have to choose between employing some more workers or investing into additional machinery to achieve the lowest cost of producing the output. Economic decision makers will trade-off these benefits until the benefits and costs are equalized on the margin. For example, the consumer will choose to buy amounts of beer and pizza until the benefits of consuming a little bit more beer is equal to the costs in terms of pizza consumption that this entails.

Thus, the decision makers that we examine maximize some objective and they do so by equalizing benefits and costs on the margin.

Calculus is the study of small changes - of marginal adjustments. And, calculus provides tools for maximizing functions. Thus, calculus is quite naturally the right tool to study economics. Students are often scared of calculus and many introductory economics classes therefore rely on workarounds based on algebra that are in fact just calculus in all but name. Instead, I will begin this class with a one week module on differential calculus. This module will introduce you in a very intuitive fashion to the ideas of differential calculus. During this introduction, I will provide you with a cook-book of simple algebraic manipulations that will enable you to apply the ideas embedded in calculus to simple functions (polynomials, exponential and logarithmic functions).

**Lecture 7-8 (Sept 25, 30) Supply and Demand, II**

**Lecture 9-11 (October 2, 7, 9) Decision Theory - The Rational Consumer.**

HOMEWORK DUE Oct 9

* Pearson Chapter 4 and 5

Online lecture: Jon Gruber’s take on preferences and utility: Lecture 4 of his online lectures.

This online lecture provides a different treatment of preferences and utility and might be useful for some of you. This lecture should just be taken as a help in understanding the material - in case there are discrepancies between his lecture and mine, mine prevails. Note also that Prof. Gruber at times gets himself confused during this lecture. Just try to ignore that - otherwise I think he is quite engaging.

Lecture 12 (October 16) Aggregate Demand

HOMEWORK DUE Oct 16

Lecture 13 (October 21) Price Indices
* Chapter 5.4

Lecture 14 (October 23) Midterm

Lecture 15-16 (Oct. 28, Oct 30) End of Consumer Choice
* Chapter 5

Lecture 17-18 (Nov. 4, 6) Choice over Uncertainty

Lecture 19-23 (Nov 11, 13, 18, 20, 25) Producer Behavior
*Pearson Chapter 6 - 8

Lecture 24 (Nov 27) Putting it All Together: The Market as a Coordinating Mechanism.

Lecture 25 and 26 (Dec. 2, 3) Group Exercises

This year, I will experiment with small group exercises in the two review lectures. The exact way this will proceed is not clear yet - but it will probably require you to review material ahead of time and then work on related group exercises in class. Prior to the class, you will be randomly assigned to small groups. In class, you will be required to solve a set of exercises using tools that I have demonstrated before. The TAs and I will be available during class to help you work through these problems.
6 Other

- McGill University values academic integrity. Therefore all students must understand the meaning and consequences of cheating, plagiarism and other academic offenses under the Code of Student Conduct and Disciplinary Procedures (see www.mcgill.ca/students/srr/honest/ for further information).

- According to Senate regulations, instructors are not permitted to make special arrangements for final exams. Please consult the calendar, section 4.7.2.1, General University Information and Regulations, at www.mcgill.ca.

- In accord with McGill University’s Charter of Students’ Rights, students in this course have the right to submit in English or in French any written work that is to be graded.

- As the instructor of this course I endeavor to provide an inclusive learning environment. However, if you experience barriers to learning in this course, do not hesitate to discuss them with me and the Office for Students with Disabilities, 514-398-6009.

- End-of-course evaluations are one of the ways that McGill works towards maintaining and improving the quality of courses and the student’s learning experience. You will be notified by e-mail when the evaluations are available. Please note that a minimum number of responses must be received for results to be available to students.

McGill University is on land which has long served as a site of meeting and exchange amongst Indigenous peoples, including the Haudenosaunee and Anishinabeg nations. We acknowledge and thank the diverse Indigenous people whose footsteps have marked this territory on which peoples of the world now gather.