INTRODUCTION TO MICROECONOMICS (22095)
FIRST TERM, 2012

SYLLABUS

PROFESSOR: Gianmarco León

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OFFICE: Jaume I Building, 20.1E36

OFFICE HOURS: Mondays 9:30-11:30 a.m.

THEORY CLASSES: Wednesday, 9-11am., in room 40.253

SEMINRS S: Thursday, 9 -10:30am., group b103 in room 13.006;
11-12:30pm., group b102 in room 13.006;
1 -2:30pm., group b101 in room 13.006

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OBJECTIVE OF THE CLASS:

In this course you will learn economics principles by first participating in experimental classroom markets and then studying the related economic theory and applications. The subject of economics is ideally suited to an experimental approach. By participating in economic experiments, you will be able to observe economic principles in action. After you have participated in an experiment and recorded the results, I will present economic theories designed to explain what happened in the laboratory. With the data collected from the classroom experiments, you can discover how well or how badly each theory works in predicting the experimental outcome. With this motivation, theories come to life and once they seem real, they become interesting. I expect that in the process you will come to appreciate the great power and some of the shortcomings of economic theory in explaining the economic world in which we live.

The main textbook for the course is ***Experiments with Economic Principles*** (Second Edition), written by Professor Theodore Bergstrom of UCSB and Professor John Miller of Carnegie Mellon University [BM]. This textbook is designed to teach economic principles through experiments. It is recommendable to also consult other microeconomic textbooks to deepen your knowledge. In particular the program outline makes reference also to chapters of a second book, *Principles of Economics* (3rd through 6th Edition) by Gregory Mankiw [M] (there are several copies of this book at the library).

This course requires the extensive reading of the textbooks, and work on the exercises presented in the books. At the same time some complementary readings will be recommended during the course and will be available through Aula Global, so you should look at it often. Particularly, I will be posting there the lecture ppts, homeworks, and data from the experiments, which you will need to work with. Additionally, I will

post there additional readings for the class, solutions to homework, and grades from the experiments and HW's.

My objective for this semester is to try to help you as much as I can to learn the basic principles of economics, and to think like an economist. In general, my policy is that hard and honest work should be rewarded, while dishonest behavior should be harshly punished. I only will ask you for one favor. I will really appreciate if you could give me feedback to improve my teaching. You can do so by talking to me directly, e-mailing me, or just dropping anonymous notes on my mailbox.

SOME GROUND RULES….

While this is a large class, I want you to feel comfortable and approach me with any questions or concerns that you have. I prefer if you refer to me by my first name (Gianmarco, in case you forgot it). If you feel uncomfortable by using my first name, you can always call me by my secret name (Superman - shhhh...).

There is one disclaimer that I have to make right now. My memory is not as good as I would like it to be (don't ask why), so it will take me a while to learn your names. Until I learn your names, I will call everyone Juan, and you will start any intervention in class by saying your name. As long as I am calling you Juan, you are allowed to call me by whatever name you want.[1]

Usually, I will organize lectures in the following way: the first 10 minutes will be dedicated to refresh our minds about the topics covered in the previous lecture, then we will spend 5 or 10 minute to answer your questions about homeworks, about the experiments, some concepts that might still be unclear, etc.. If you do not want to ask a question in front of everyone, feel free to e-mail me your questions up until the night before lecture, and I will make sure to answer it. Then, we will go into the subject matter for the day, take a 8 minute break after 50 minutes, and finish up the material during the last 40 minutes that we have left.

OFFICE HOURS AND E-MAIL POLICY:

As you have probably noticed by now, this class covers a lot of material and the amount of time that we will share in class and sections is very limited, so it is very likely that during that time I will not be able to answer all the questions that you might have. I strongly encourage you to visit me during office hours to solve any questions or concerns that you might have about the material. If you don't drop by my office, I will spend two hours a week very bored, looking at the ceiling (or facebook….) and thinking that you are way too smart for this class. If you are too busy to stop by my office, you can always e-mail me your questions.

Regarding to the e-mails, I have one request. My spam filter is a bit special, so to be able to go through it, please type in the subject line "**Intro to Micro**". I am usually very fast responding to e-mails, but please don't bombard me with questions the night before you have to hand in something. On those days I will only answer e-mails before 9pm.

One last thing regarding electronic communication: this is a very large class, and I expect to be receiving a lot of e-mails from you, so to make my life easier I want any questions that you

[1] Insults in the classroom are not cool.

send me to be accompanied by a tentative answer. That way I will make sure that you have thought through your question, and you're not just sending me whatever came to your mind. I am sure that you are all very smart, so most of the times your tentative answers will be correct, or just a step away from the final answer, so my replays will just confirm your initial intuition or provide the links that you might be missing.

COURSE REQUIREMENTS AND GRADING

Workload: The workload for this class is substantial. The course is designed with the expectation that the average student should spend two to three hours per class hour, that is eight to twelve hours per week on homework, reading, and class preparation. Class attendance is also important, and attendance in seminar meetings is essential to passing the course.

Lectures: Attendance to lectures is not mandatory, however students who regularly attend to lectures tend to perform better in the class, so it is highly recommended that you do so.

Seminars: The experiments take place in your seminar meetings. (Seminars **will** meet during the first week of classes.) To get credit for participating, you must go to the seminar for which you are registered. Since everybody participates in the classroom experiments, **it is important that you show up on time.** If you arrive in seminar after the experiment materials are handed out, you will not be allowed to participate. When we record the results of classroom experiments, we will also record attendance and participation. This affects your overall score for the class.

Homework: Each week you are required to hand in homework based on the results of in-class experiments and your lab notes. You can tear out the homework pages from your textbook and hand them in at the next week's section meeting. You may also copy those pages and hand in the copies. Homework must be turned in on time in order for you to receive credit. The data that you need for your lab notes will be collected from the experiment conducted in your seminar and will be made available to you on the web within three days of the time of the experiment.

Instructions for experiments / seminars:
Every week your seminar meeting will be conducted as an experimental laboratory. You will participate in an economic market situation. After you have participated in this market, we will study the economic theory that explains what happened. Your responsibilities as a participant in the class will typically fall into the following pattern.

What to Do	When to Do it
Read the instructions for the next experiment and do the warm up exercises.	Before you go to your Thursday seminar meeting.
Attend your weekly seminar meeting and participate in this week's experiment.	At the regularly scheduled time for your seminar.

Get the data from this week's experiment, complete the lab notes, and do the homework in your textbook. The data will be available on Aula Global on Friday.	Start before the lecture session scheduled to discuss this experiment (Wednesday). Have it finished by the next seminar meeting (Thursday).
Attend theory lectures.	Wednesdays, as scheduled.
Hand in your homework.	The next seminar meeting

- The grade of the experiments depends on attendance and some profits accumulated during the experiment
- To participate in an experiment you must be punctual and have an identification number (the **NIA**).
  We do not admit entrance to anyone not belonging to the subgroup of the meeting or once the experiment has begun.
- **Before** the seminar in which the experiment is performed you must have read the **introduction** to the topic in the textbook and have done the **warm up exercise.**
- These tasks not only ensure the smooth running of the seminars, but also enhance the potential for greater profits.
- At the beginning of the experiment you will receive a sheet with information about your role in the experiment. At the end of each experiment you must return this sheet with the data of your participation.
- The ***Lab Notes*** derived from the experiments are necessary in order to do the homework will be published in the "aula Moodle" of the subject.
- As in any society, unethical behavior or a breach of the rules can be penalized with loss of profits.

Important:

- The grade of your profits depends on all of your experiments and results for all students in the class, not only for students in your group.
- During a seminar there will be several sessions and rounds of the same experiment. Not all rounds / sessions will be counted for the profits, the profits will be chosen randomly from among rounds and sessions in each experiment. The session and / or round which is chosen for profits will be announced once the profits of this experiment are published.
- The more profits you get, the higher your score. To obtain high profits you have to get the best possible price. The formula we use will be:

$$\left[0,5\{attendance\}\right]+\left[0,5\frac{Mean\,\mathrm{Pr}ofitt\{excluding\,\mathrm{Pr}ofit_{\max}\,and\,\mathrm{Pr}ofit_{\min}\}}{Benef_{\max}class-Benef_{\min}class}\right]$$

The evaluation criteria is defined as follows:

- 50%: **Final exam**. 10/12/2012 [11:30am-1:30pm], Location TDB. It is necessary to pass the final exam to pass the class.
- 20%: **Midterm Exam** (November, 2nd).
- 20%: **Weekly homeworks**. The completeness of each assignment will be evaluated and it will be corrected based on one or two points chosen at random.
- 10%: **Experiments**. 5% depends on attendance. Not participating in an experiment adjudicates 0 profits in said experiment. The remaining 5% will be proportional

to your average profits obtained (after excluding the maximum and minimum) with respect to profits earned by the rest of the class.

- Recuperacion: The Recuperacion exam will take place during the first term of 2013 (exact date TBD). If you choose to take this exam, it will only count to replace the grade of the final exam, but not the midterm, homeworks, or experiment grades. You can only take this exam if you were present during the final exam, or if you were not, you must show a medical certificate that excuses you from attending that date.

SCHEDULE AND IMPORTANT DATES:

Part I: Competitive Markets

Topic 0: Introduction to Microeconomics
Lecture: Sept. 26th
Bibliography: Harford, Tim (2007) *The Undercover Economist. Exposing Why the Rich Are Rich, the Poor Are Poor--and Why You Can Never Buy a Decent Used Car!* Chapter 3.
[M] Ch. 1 and 2.

Topic 1. Supply and Demand
Seminar 1: Sept 27th - Experiment 1 in [BM]

Lecture: Oct. 3rd

Bibliography: [BM] Chap. 1 and Appendix A.1;
[M] Ch. 4 and Ch. 7

1.1. A model of competitive markets
1.2. The supply curve
1.3. The demand curve
1.4. The price-quantity equilibrium
1.5. Who trades in equilibrium?
1.6. Reserve price, profit of seller and consumer surplus
1.7. The efficiency of competitive equilibrium
1.8. Model of competitive markets with supply and demand curves

Topic 2. Shifts in Supply and Demand
Seminar 2: Oct 4th - Experiment 2 in [BM] / HW 1 due (Topic 1-2)
Lecture: Oct. 10th

Bibliography: [BM] Chap. 2, Appendix A.2
[M] Chap. 4 and 7

2.1. Review of the model of competitive markets: input and output
2.2. The supply curve with variable costs and fixed costs
2.3. Comparative statics: supply shift
  2.3.1. What happens to the quantity in equilibrium?
  2.3.2. What happens to the equilibrium price?
  2.3.3. What about the equilibrium profits?
2.4. Comparative Statics with smooth demand and supply curves
2.5. What happens to the quantity in equilibrium?
2.6. What happens to the equilibrium price?
2.7. What about the equilibrium profits?

Topic 3. Slope and Price Elasticity of the Supply and Demand curves
Note that there is no seminar on Oct. 11th
Lecture: Oct. 17th

Bibliography: [BM] Appendix A.3-A.4
[M] Chapt. 5

3.1. The Slope
3.2. Price Elasticity
3.3. Relationship between the slope and elasticity
3.4. Properties of the Price elasticity
3.5. Price elasticity and total income

Part Two: Intervention in the market and economic policy

Topic 4. Taxes and Welfare: The case of a Sales Tax
Seminar 3: Oct 18th - Experiment 3 in [BM] / *HW 2 due (Topic 3)*
Lecture: Oct. 24th

Bibliography: [BM] Chap. 3.
[M] Chap. 6

4.1. Tax on sale for sellers
  4.1.1. How does the supply curve change?
  4.1.2. The price and equilibrium quantity
4.2. Sales Tax for buyers
  4.2.1. How does the demand curve change?
  4.2.2. The price and equilibrium quantity
4.3. Comparison of results: tax for the seller and buyer
4.4. Who bears the tax? Hint: It depends on the elasticity
4.5. Taxes and Welfare
  4.5.1. First Welfare Theorem: efficiency of competitive markets
  4.5.2. Government intervention through taxation
  4.5.3. Analysis of welfare with and without taxes
  4.5.4. Efficiency loss (excess burden) and cost of taxes
  4.5.5. Why do taxes exist? Efficiency and justice

Topic 5. The labor market and minimum wage
Seminar 4: Oct 25th - Experiment 5 in [BM] / HW 3 due (Topic 4)
Lecture: Nov. 7th
Note that there will be no lecture on Oct. 31st and no seminar on Nov. 1st.

Bibliography: [BM] Chap. 5
[M] Chap. 6 and 18

5.1. Introduction
5.2. The demand for labor
  5.2.1. Rule of the value of marginal product
  5.2.2. Marginal product and average product
  5.2.3. Labor demand curve of a company
  5.2.4. Labor demand curve of the market
5.3. Labor supply
5.4. Competitive equilibrium in the labor market
5.5. Effects of a minimum wage
5.6. Minimum prices and maximum prices

Nov. 9th: **MIDTERM EXAM** (Topics 1-4)

Part three: Consumer behavior

Topic 6. The decision of the consumer
Lecture: Nov. 14th

Bibliography: [M] Chapt. 21

6.1. The budget constraint.
6.2. The preferences of the consumer.
6.3. The optimal consumer bundle.
6.4. Changes in income and in prices.

Part Four: Imperfect Markets and technology

Topic 7. Externalities
Seminar 6: Nov. 15th - Experiment 6 in [BM] / HW 4 due (Topic 5)
Lecture: Nov. 21st

Bibliography: [BM] Chap. 6
[M] Chap 10

7.1. Introduction.
7.2. Competitive markets and externalities.
7.3. Taxes on pollution.
7.4. Transferable permits.
7.5. Positive externalities and subsidies.

Topic 8. Monopolies and cartels
Seminar 7: Nov. 22nd - Experiment 7 in [BM] / HW 5 due (Topic 6)
Lecture: Nov. 28th

Bibliography: [BM] Chap. 7 (except pages 203-208)
[M] Chap. 13 and 15

8.1. Monopoly and Competitive Markets.
8.2. Behavior of a Monopoly.
8.2.1. Total Revenue and Total Cost.
8.2.2. Marginal Revenue and Marginal Cost.
8.2.3. Quantity and Price of Monopoly.
8.3. Comparison of Monopoly and Competitive Markets.
8.4. Monopoly with Smooth Curves.
8.5. Cartels.

Topic 9. Network externalities
Seminar 8: Nov. 29th - Experiment 9 in [BM] / HW 6 due (Topic 7)
Lecture: Dec. 5th
HW 7 (Topic 8) due on Dec. 5th, by 6pm. in my mailbox

Bibliography: [BM] Chap. 9

9.1. What are the network externalities?
9.2. Network externalities and the demand curve.
9.3. The equilibrium with network externalities.
9.4. Stable equilibria, unstable equilibria and critical mass.

DEC. 10th FINAL EXAM "INTRODUCTION TO MICROECONOMICS" 11:30AM-1:3-PM, LOCATION TBD

CALENDAR:

	Date	Content	Activity	Homework
1st	**Sept. 26th**	**Topic 0.** Introduction to Economics. Content and Organization of the Class		
	Sept. 27th	**Seminar 1.** Supply and Demand	Experiment 1 in [BM]	
2nd	**Oct. 3rd**	**Topic 1.** Supply and Demand		
	Oct. 4th	**Seminar 2.** Shifts in Supply and Demand	Experiment 2 in [BM])	*HW 1 due*
3rd	**Oct. 10th**	**Topic 2.** Shifts in Supply and Demand		
	Oct. 11th	*No Seminar*		
4th	**Oct. 17th**	**Topic 3.** Elasticity		
	Oct. 18th	**Seminar 3.** A Sales Tax	Experiment 3 in [BM])	*HW 2 due*
5th	**Oct. 24th**	**Topic 4.** Taxes and Welfare		
	Oct. 25th	**Seminar 4.** A Minimum Wage	Experiment 5 in [BM]	*HW 3 due*
6th	**Oct. 31st**	*No Lecture*		
	Nov. 1st	*No Seminar*		
7th	**Nov. 7th**	**Topic 5.** A Minimum Wage		
	Nov. 8th	**Seminar 5**. MIDTERM EXAM (Topics 1-4)		
8th	**Nov. 14th**	**Topic 6.** Consumer's decisión		
	Nov. 15th	**Seminar 6**. Externalities	Experiment 6 in [BM])	*HW 4 due*
9th	**Nov. 21st**	**Topic 7**. Externalities		
	Nov. 22nd	**Seminar 7.** Monopolies and Cartels	Experiment 7 in [BM]	*HW 5 due*
10th	**Nov. 28th**	**Topic 8.** Monopolies and Cartels		
	Nov. 29th	**Seminar 8.** Network Externalities	Experiment 9 in [BM]	*HW 6 due*
11th	**Dic. 5th**	**Topic 9.** Network Externalities		*HW 7 due*
	Dec. 10th	FINAL EXAM.		
	Date TBD	RECUPERACIÓN.		