INTRODUCTION TO MICROECONOMICS (22095)
FIRST TERM, 2013

SYLLABUS

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OFFICE: Jaume I Building, 20.206
OFFICE HOURS: Mondays 9:30-11:30 a.m.

THEORY CLASSES: Wednesday, 9.00-11.00, in room 40.146

SEMINARS: Monday, 13.00-14.30, group b101 in room 13.002;
15.30-17.00, group b103 in room 40.047;
17.00-18.30, group b102 in room 40.047:

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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 in the following]. 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 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.

Regarding the preparation of the material of the course, I would like to suggest to you to form groups of 3-4 students to discuss class material and homework questions. The best is if you first all go through the homework and lecture material by yourself and then meet together to discuss it. This way you learn to cooperate within the group by helping each other to understand the material. Ideally your group should be balanced, e.g. in your skills in math or knowledge of economics from highschool. However, I require that each student has **to hand in his own homework sheet**. In the seminar you will learn to compete with your class mates for getting the highest profit.

To sum up in this class you get a high level of theory accompanied with a high level of experience in order to foster a deep understanding of basic theoretical concepts of economics. You will use different methods of cooperation and competition, called co-ompetion.

OFFICE HOURS AND E-MAIL POLICY:

This class covers a lot of material and the amount of time that we will share in class and sections and that you work through with your class mates. Therefore it is very likely that during that time you will have questions you find no answer to. I strongly encourage you to visit me during office hours to solve any questions or concerns that you might have about the material.

Regarding **e-mails** (write to **introeconibe2013**@upf.edu), I have one request, as this is a very large class, and I expect to be receiving a lot of e-mails from you: I appreciate that you only ask questions which can be answered in a line or two. This is in particular important for questions related to homework. In general for homework questions you have to come to my office hours, discuss it within your group or ask the TAs. I am very interested to also receive questions which I should discuss in the lectures, which you can alternatively ask directly in class, seminars, or in the breaks during the lectures.

COURSE REQUIREMENTS AND GRADING

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. 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 a 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 similar to the once* 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 Monday seminar meeting. This is mandatory as the instructions will not be read in the seminar.
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 Tuesday night.	Hand in the homework by the next seminar meeting (Monday).
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:

$$[0{,}5\{\text{attendance}\}]+\left[0{,}5\frac{\text{MeanProfit}\{\text{excludingProfit}_{max}\text{andProfit}_{min}\}}{\text{Benef}_{max}\text{class}-\text{Benef}_{min}\text{class}}\right]$$

The evaluation criteria is defined as follows:

- 50%: **Final exam**. Date and Location TDB, during the examination period. You must obtain at least 45 out of 100 of the Final Exam grade. In case of not passing the exam requirement, the final mark will be suspended and not more than 4'5. The final exam will include an **optional section** (not multiple choice) that is corrected and rated only if you get at least 80 out of 100 on the required questions.
- 20%: **Midterm Exam** (4 November).
- 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.
- Recuperation of the final exam: All students who have failed the final exam can recuperate the exam, regardless of whether they have submitted the final exam or not. But you can only recover the *final exam*, keeping notes for midterm, weekly work, and experiments. The makeup exam will **not** include the **optional section**. The recovery will take place in the second quarter according to the schedule published by the Faculty of Economics and Business.

SCHEDULE

Part I: Competitive Markets

Topic 0: Introduction to Microeconomics

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

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

Bibliography: [BM] Chap. 2, Appendix A.2, [M] Chap. 4 and 5

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
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
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
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

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
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
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
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.

CALENDAR:

	Date	Content	Activity	Homework
1ª	**25 Sept.**	**Topic 0.** Introduction to Economics. Content and Organization of the Class		
2ª	**30 Sept**	**Seminar 1.** Supply and Demand.	Experiment 1 in [BM]	
	2 Oct.	**Topic 1.** Supply and Demand.		
3ª	**7 Oct.**	**Seminar 2.** Shifts in Supply and Demand.	Experiment 2 in [BM])	*HW 1 due*
	9 Oct.	**Topic 2.** Shifts in Supply and Demand.		
4ª	**14 Oct.**	**Seminar 3.** A Sales Tax	Experiment 3 in [BM])	*HW 2 due*
	16 Oct.	**Topic 3.** Elasticity		
5ª	**21 Oct.**	*No Seminar*		
	23 Oct.	**Tema 4.** Taxes and Welfare		
6ª	**28 Oct**.	**Seminar 4.** A Minimum Wage.	Experiment 5 in [BM]	*HW 3 due*
	30 Oct.	**Topic 5.** A Minimum Wage.		
7ª	**4 Nov.**	**Seminar 5**. MIDTERM EXAM (Topics 1-4)		
	6 Nov.	**Topic 6.** Consumer's decision		
8ª	**11 Nov.**	**Seminar 6**. Externalities	Experiment 6 in [BM])	*HW 4 due*
	13 Nov.	**Topic 7**. Externalities		
9ª	**18 Nov.**	**Seminar 7.** Monopolies and Cartels	Experiment 7 in [BM]	*HW 5 due*
	20 Nov	**Topic 8.** Monopolies and Cartels		
10ª	**25 Nov**.	**Seminar 8.** Network Externalities	Experiment 9 in [BM]	*HW 6 due*
	27 Nov.	**Topic 9.** Network Externalities		
11ª	**3 Dec.**			*HW 7 due*
	December	FINAL EXAM.		
	January	RETAKE OF EXAM		