

UCM

Intermediate Microeconomics

Course manual: SSC2048

September 12, 2012

1 Introduction

This course will provide an introduction to mathematical methods in economics that allow us to understand how scarce resources are allocated among alternative uses.

Economics is a study of exchange and tradeoffs. What to buy, what to produce, how to allocate your time, all of these questions involve tradeoffs between alternatives, and economists develop models to help understand the process by which individuals and firms make these decisions. Many of these models have a mathematical basis because the use of mathematics offers precise shorthand for stating the models and exploring their consequences. With these models in hand, economists can then develop criteria by which to judge the efficiency and effectiveness of firms, investors, markets, and institutions.

This course is a first introduction to microeconomics. It will present an overview of the basic models that constitute the foundations of modern economics. We will build the theory of the consumer and the producer from the bottom up to create relatively simple models of market behavior. The goal is not to offer a complete description of the world as it is; rather, we will seek to simplify reality with the goal of providing a concise description of a broad class of real world circumstances.

As we progress we will touch on examples of the theory in context to highlight just how well these models are able to characterize much of the economic behavior we observe in the real world. After developing models of the market as a whole, we'll explore extensions of the theory to the strategic behavior of firms and individuals.

2 Literature

The primary textbook for the course is:

-- Varian, Hal (2009), *Intermediate Microeconomics, 8th Edition*, W.W. Norton & Sons.

I may supplement this text with additional readings throughout the Block.

3 Organization and Content

There will be two regular, weekly tutorial group meetings (Except in week 4 and 8) that are supplemented by lectures in Weeks 1 and 5. The first lecture will introduce the course organization and content, and review the relevant mathematical background necessary to follow the course. Each of the remaining meetings covers the textbook chapters, exercises and additional readings as given in Table 1.

The first part of each meeting will be devoted to review and discussion. In the second part, a new topic will be introduced which will later be discussed in the first part of next meeting. Each week you are expected to read the assigned literature, work through the exercises and prepare for discussion in the next meeting.

Table 1 outlines the contents for each week together with the required readings. Occasionally some additional exercises or problems may be assigned. In the Readings column the subsections of the book chapters that are not required are marked with a "minus" sign.

Week	Meeting	Topics	Readings	Assignments
1	Lecture	Mathematical Background	Mathematical Appendix	
	TG1	Economics Methodology	Ch.1	
	TG2	Budget/Preferences/Utility	Ch. 2, -2.2,5 Ch. 3, -Discrete Goods Ch. 4, -4.6	
	TG1	Choice/Demand	Ch. 5, -Discrete Goods, -5.4 Ch. 6, -Discrete Goods	
	TG2	Choice/Demand (continued)	Ch. 7, -7.7-9 Ch. 8, -8.5,8,9	Assign PS1
3	TG1	Exchange Economy/General Equilibrium	Ch. 31, -31.6	EXAM
	TG2	Monopoly	Ch. 24, -24.3,5 Ch. 25, -25.5-10	PS1 Due
4	TG1	NO CLASS		
	TG2	Normal Form Games/Duopoly	Ch. 28, -28.3 Ch. 29, -29.2,7 Notes 1	EXAM DUE Assign PS2
5	Lecture	Review of Exam		
	TG1	Extensive Games/Stackelberg Duopoly	Notes 2	
	TG2	Repeated Games/Collusion	Notes 3	
6	TG1	Asymmetric Information	Ch. 37	
	TG2	Behavioral Economics	Ch. 30, -30.2	PS2 Due
7	Final Exam			IN CLASS EXAM

Table 1: Contents and required readings by week

4 Determination of Course Grade

In order to pass the course you have to pass participation, the problem sets and a final exam. If that requirement is satisfied the course grade is computed as follows:

Course Grade =

$$0.2 * \text{ParticipationGrade} + 0.2 * \text{ProblemSetGrade} + 0.2 * \text{TakeHomeExamGrade} + 0.4 * \text{ExamGrade}$$

Final exam grade: The final exam will be a cumulative, written, closed-book exam. The maximum score is 10 points. Any final exam grade below 5.5 implies a fail of the entire course, and it is not possible to compensate failure in any way other than through a resit exam. The focus of the exam will be on understanding the main concepts and issues covered in the course, not on details. The exam will include both open-ended discussion questions as well as analytical problems. The open-ended questions will be based either on material that has been discussed in the weekly meetings and/or have been at the core of the assigned readings. The level of the analytical problems will be similar to that of the exercises solved during the course.

Take-home exam grade: The maximum score on the take-home exam is 10 points. It will be handed out in the 2nd tutorial meeting of week 3 and will be due at the lecture at the beginning of week 5. Failure to turn in the exam on time will result in a grade of 0.

Problem set grade: The maximum score on each problem set will be 5 points, and your problem

set grade will be the sum of your scores on each of the (2) problem sets, for a total of 10 available points. Failure to turn in the problem sets on time will result in a grade of 0. The purpose of the problem sets is to offer example problems that will prepare you for the exams; hence, your grade on these problem sets will derive not from your answers being correct but rather from the fact that you submitted attempts at solutions.

Participation grade: Preparedness in discussions with respect to issues and exercises account for the participation grade. The maximum participation score is 10 points. Any participation grade below 5.5 implies a fail of the entire course. It is not possible to compensate failure to pass participation in any way (e.g. with a block assignment). Physical and mental presence is expected in every session and is necessary to achieve a grade of 5.5. To ensure that a failing grade does not come as a surprise, feedback on the participation will be given by the tutor throughout the course.

Students who have failed to meet the attendance requirements, but who have not missed more than 30% of the group meetings, can qualify for an extra assignment to receive credits for the course. These students have to fill out the request form 'Additional assignment because of insufficient attendance' at the Office of Student Affairs and make sure to the coordinator/tutor that their absence was justified by a valid reason. The course coordinator decides if the student will be given an additional assignment.

5 Course Coordinator

Alexander Vostroknutov is the coordinator and tutor for the course.

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