Introduction into the information society

Course manual

Course manual EBC2018

Academic year 2011 – 2012

Period 1: September – October, 2010

Department of Economics

Maastricht University

Contents

1 Introduction

This course is an extension of the (standard) first year Microeconomics course with a focus on information goods. It is expected that the students who take this course have a strong background in Microeconomics at the level of having passed the first-year course *Microeconomics* (EBC1010). It is also recommended that the students have prior knowledge of basic calculus and probability theory, which roughly speaking corresponds to a minimum level of familiarity with the topics covered in *Quantitative Methods I* (EBC1006) and *Quantitative Methods II* (EBC1034).

Though the course is demanding, it is structured in a way such that a student can be successful by regularly attending the lectures and the tutorials, and studying according to the schedule described in Table 1. A rough estimate of the minimum self-study time needed to pass the course is about 12 hours a week.

2 Aims of the course

The aim of this course is twofold. First, it introduces classical topics of modern microeconomic theory in an attempt to make the students familiar with the standard analytical tools that are commonly used to model strategic interaction. Second, it systematically studies markets of information goods by applying the above mentioned modeling tools to specific contexts. The largest part of the course will focus on training the students to translate verbal and intuitive descriptions of strategic interactions to concrete models. The latter will take place during the tutorial meetings, implying that the participation in these meetings is crucial.

3 Course structure

The general course schedule is given in Table 1. It provides the guide for the rest of the block. The course consists of two parts. **Part I** consists of three lectures of two hours each at the beginning of the block. During these meetings we are going to systematically go through the standard literature on Decision theory under uncertainty and Game Theory. We will focus on the foundations of these models, as well as the predictions that they yield. Teaching will take place in the form of a standard lecture. Though not formally compulsory, students are strongly encouraged to participate in the lectures as throughout the entire course we will use concepts and techniques discussed during these three meetings. Upon finishing Part I, a problem set will be uploaded on ELEUM which will be due 10 days later and will correspond to 15% of the final grade (for more information on the problem set, check Section 5 below). **Part II** consists of nine tutorial meetings of two hours each. In each tutorial we will cover one chapter from the main textbook (Shapiro & Varian,

Week	Meeting	Subjects and Literature
1	L_1	**Decision Theory: Choice under uncertainty and risk** Perloff (2012, Ch. 17.1–17.4)
	L_2	**Game Theory: Static games** Perloff (2012, Ch. 14.1–14.2, 14.4)
2	L_3	**Game Theory: Dynamic games** Perloff (2012, Ch. 14.3, 19.1–19.3, 20.1)
	T_1	**Pricing information** Shapiro & Varian (1999, Ch. 2)
3	T_2	**Versioning information** Shapiro & Varian (1999, Ch. 3)
	T_3	**Rights management** Shapiro & Varian (1999, Ch. 4)
4	T_4	**Recognizing lock-in** Shapiro & Varian (1999, Ch. 5)
	T_5	**Managing lock-in** Shapiro & Varian (1999, Ch. 6)
5	T_6	**Networks and positive feedback** Shapiro & Varian (1999, Ch. 7)
	T_7	**Cooperation and compatibility** Shapiro & Varian (1999, Ch. 8)
6	T_8	**Waging a standards war** Shapiro & Varian (1999, Ch. 9)
	T_9	**Information policy** Shapiro & Varian (1999, Ch. 10)
7	L_4	**Revision**
8		**Final exam**

Table 1: Course schedule

1999). The main goal of each tutorial meeting will be to formalize the concepts and ideas of the corresponding chapter using game theoretic tools from Part I of the course. Therefore, the students are expected to have read the corresponding material before the meeting and are expected to actively participate in the discussion. Both physical and mental participation are mandatory and contribute by 10% to the final grade (see Section 5). The final exam, which accounts for 75% of the final grade, will take place on the last week.

4 Literature

The main textbook for this course is

SHAPIRO, C. & VARIAN, H. (1999). *Information rules: A strategic guide to the network economy*.

Harvard Business School Press.

We will use this book during the tutorial meetings in Part II of the course. For Part I of the course, the following textbook is suggested.

PERLOFF, J.M. (2012). *Microeconomics*. Pearson, 6th Ed.

Additional material will be provided by the block coordinator during the course.

5 Performance assessment

5.1 Grade calculation

The course will be graded based on the performance in the following three tasks: Final exam (75%), Problem set (15%) and participation in the tutorial meetings (10%). The final grade will be on a scale $1 - 10$, rounded to the nearest half point. To pass the course one needs an unrounded grade of at least 5.5. That is, 5.3 and 5.4 are downgraded to 5 and therefore do not suffice to pass the course.

The **final exam** will consist of closed form problems on topics both from the first and the second part of the course. The **problem set** will consist of closed form problems from Part I of the course. Students are allowed to submit their answers in groups of at most 3 people. The answers should be handed in within ten calendar days after the publication of the questions on ELEUM. Late submissions will not be accepted. The **participation** task will consist of nine pass/fail grades, one for each meeting of Part II of the course. A pass grade is received if the student is physically present in the meeting and actively participates in the discussion. In order to pass the participation requirement at least 6 passes are needed. Students with less than 6 passes have to write a block assignment which consists of a set of problems covering the material of the nine tutorial meetings in order to pass the participation task. This problem set has to be submitted within 10 working days from the exam date. Students with more than 7 passes receive a full grade for participation (10%), whereas students with no more than 7 passes do not receive any points for participation.

5.2 Resit

For the students who fail the course, there will be a resit exam organized by the school. The resit exam counts for 75% of the final grade. The students who take the resit carry with them their grades for the problem set and the participation task.

5.3 Repeat students

Students who took the course in the academic year 2010–2011 or before and did not pass are allowed to register for the exam without taking the course again. In this case, their final grade will be based only on their performance in the final exam (100%).

5.4 Objections

After both the final and the resit exam the course coordinator will publish the solution keys on ELEUM. Students are welcome to see and discuss their exam by appointment with the block coordinator. Placing such a request should be done only after the student has carefully read the solution key, and in case there are specific questions/objections regarding the solutions. Students may request such a meeting within 7 calendar days after the publication of the results. Late requests will not be granted. The previous apply to both the final and the resit exam.

6 Contact information

For any further information regarding the course, please contact the course coordinator:

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