

Syllabus

Course title	MICROECONOMIC THEORY 2
Instructor	Anton van Boxtel, Marc Kaufmann
Email	kaufmannm@ceu.edu
Office	by email appointment, on Zoom
Credits	5 US credits (8 ECTS credits)
Term	Winter 2021-2021
Course level	Master's
Prerequisites	Microeconomic Theory 1

1. COURSE DESCRIPTION

Content.

The course consist of two parts.

Part I covers the basics of non-cooperative game theory.

Part II familiarizes students with the basic concepts, models, and methods in information economics, the study of the effects of information asymmetries on economic outcomes. The topics covered are:

- Adverse Selection in Markets
 - Akerlof's Lemons Model
- Nonlinear Pricing
 - The basic two-type model of hidden information
 - Competitive screening
- Moral Hazard
 - The basic two-effort model of hidden action
 - Career concerns
- Mechanism Design (probably only some)
 - Pivotal mechanisms
 - The revelation principle
 - Auction theory

2. LEARNING OUTCOMES

Key outcomes. By the end of the course, students will

- Be familiar with the extensive and normal forms of games
- Know and be able to apply the concepts of Nash equilibrium and subgame perfection
- Understand the basics of static and finite dynamic games of complete and incomplete information
- Understand sequential rationality and weak Perfect Bayesian Equilibria
- Understand basic models to capture various types of asymmetric information
- Learn techniques to solve these models
- Spot when asymmetric information is an important aspect of an economic situation

3. READING LIST

Part II: The standard textbook on information economics and contract theory is "Contract Theory" by Patrick Bolton and Mathias Dewatripont, MIT Press, 2005. Although the book covers much more material than this course, it may be useful for understanding some of the topics in the class, for finding applications, and as a reference. But the required readings are the lecture notes on the Moodle website which are from Botond Kőszegi. These notes draw on a variety of sources, including the "Contract Theory" book, Mas-Colell/Whinston/Green, some other published work, and others' (mostly unpublished) lecture notes. Since these are not my (Marc Kaufmann's) notes and since they have not been edited to the standard of publishable texts, please ask for permission before circulating.

4. TEACHING METHOD AND LEARNING ACTIVITIES

The course will involve a mix of lectures and in-class problem solving. Specifically, learning objectives will be achieved through

Part II:

- 80% lectures
- 20% in-class problem solving

5. ASSESSMENT

Grading will be based on the total score out of 100, in line with CEU's standard grading guidelines, where the total score is achieved by averaging (with equal weights) both parts of the course: the part taught by Anton van Boxtel and that taught by Marc Kaufmann will each be normalized to 100 and the average of that determines the final score.

Grading for Part II: You can get 120 points for part II. The points are determined as follows:

- 40 points total for the 2 problem sets (i.e. 20 points per problem set)
 - 10 points for your own problem set
 - 10 points for scoring your own problem set and that of 2 other students
- 20 points for 4 quizzes (5 points per quiz)
- 60 points for the exam
 - The exam for Part II will be on the last day of class – it will only be about the material for Part II taught by Marc Kaufmann, not about Part I taught by Anton van Boxtel

You can get 120 points for part II, but any score above 100 is truncated down to 100 – thus there are 20 points to spare.

Notice: I (Marc Kaufmann) will not grade your problem sets myself, but you will grade each others. Your score on the exam will reflect whether you did the problem sets, and I will scan solutions and grading, with immediate zero scores on problem set and grading if I discover cheating or collusion.

Date of Exam for Part II (and Part II only): Final Day of Class, 100 minutes in-class exam.

6. TECHNICAL REQUIREMENTS

As long as you can access the online learning platforms for materials, you should be fine.