Syllabus

Department of Economics and Business
CENTRAL EUROPEAN UNIVERSITY

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 2020-2021
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:

- 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including the "Contract Theory" book, Mas-Colell/Whinston/Green, some other published work, and others' (mostly unpublished) lecture notes.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:

- 90% lectures
- 10% 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.

Grading for both parts combined: You can get 115 points for part II – i.e. any score above 100 counts as a score of 100. Grades will be curved, after applying a threshold of 100 (so scores of 110 and 100 lead to identical final grades). The points are determined as follows:

- 65 points for problem sets: 13 points per problem set (both parts)
  - 3 problem sets are for part I (Anton van Boxtel)
  - 2 problem sets are for part II (Marc Kaufmann)
- 40 points for the exam: 20 points for part I + 20 points for part II
  - **Note: The exam is about both halves and will have questions for the whole term**
- 10 points for problem 0 and self-grading for problem sets in part II (Marc Kaufmann). See *problem-set-policy.pdf* on Moodle for details on problem 0 and self-grading.

Date of Exam: Wednesday, March 31st, 13:30-15:10 (Central European Time) – the last class of term. Let me know if the time of the exam is problematic due to the timezone that you are going to be in on that day.

6. TECHNICAL REQUIREMENTS

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