**Syllabus**

**Course title** microeconomic Theory 2

**Instructors** Anton van Boxtel, Marc Kaufmann

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Office by email appointment, on Zoom

**Credits**  4 US credits (8 ECTS credits)

**Term**  Winter 2022-2023

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including the "Contract Theory" book, Mas-Colell/Whinston/Green, some other published work, and others' (mostly unpublished) lecture notes.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

**Grading for Part II:** There will be 2 problem sets each worth 15%, and the final exam worth 70%.

**Date of Exam of Part II:** Final Class of the Course, Thursday March 30th, 2023

**6. Technical requirements**

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