Helsinki GSE
Juuso Välimäki
Period II, Fall 2021
TA: Mikael Mäkimattila

Microeconomic Theory II

Course Outline

Part II of the Ph.D. and research master sequence in microeconomic theory is an introduction to collective decisions and market institutions. The emphasis in the course is on analytical concepts used in assessing societal decisions. Efficiency and stability are key ideas that recur during the course. Different economic institutions in diverse economic models are analyzed using these concepts and stability. The course builds directly on Microeconomic Theory I and it is essential that the students have a good understanding of decision theory and classical consumer theory. Some connections to strategic decision making covered in Microeconomic Theory III are mentioned, but the course does not assume any prior knowledge of game theory.

The course is divided into three main sections with each covering 2-3 lectures.

Section I is on social choice theory, i.e. how societies consisting of multiple economic agents with diverse preferences reach societal decisions. Key concepts for this section are: Arrow's Theorem, Social Welfare Function.

Section II covers two special models of societal decisions in a discrete setting: Assignment Models and Matching Models. A large and expanding contemporary literature analyzes these models and their extensions. Key concepts here are: Pareto-Efficiency, Market Equilibrium, Stability of solutions, Gale-Shapley Algorithm.

Section III covers the basics of competitive equilibrium theory for the cases of exchange economies and also for economies with production. Even

though this is not a hot topic for theoretical economic research at the moment, competitive behavior and competitive equilibrium form the intellectual benchmark for all economic behavior. A proper understanding of the scope and the limits of this theory is essential for all economic theory. Key concepts are: Competitive Equilibrium, Welfare Theorems, Core of an Economy.

Section IV applies the competitive equilibrium model in three different settings: i) Equilibrium in the Housing Market connects to the Assignment models analyzed in Part II. ii) Equilibrium in Financial Asset Markets, Betting and Prediction covers the basic model of markets under uncertainty. iii) Models of Trade analyzes the implications of the basic model for applications in international trade.

Required textbooks:

The primary source for this course is:

Mas-Colell, Whinston and Green: Microeconomic Theory, Oxford University Press, 1995.

Other books that you may find useful are:

Kreps, Microeconomic Foundations I: Choice and Competitive Markets, Princeton University Press, 2013.

and

Jehle and Reny: Advanced Microeconomic Theory, Addison Wesley, 2011.

For Section II, a particularly useful reference is the slightly less formal:

Osborne and Rubinstein: Models in Microeconomic Theory, 2020.

This book is available for download in electronic format at:

https://www.openbookpublishers.com/product/1171

Expected student performance

The Lecture Notes provided at the beginning of the course cover the material presented in the lectures. In order to make the most of the lectures,

the student should read the corresponding part in the notes **before** the lecture.

I also expect you to read the **relevant parts** in the textbook by Mas-Colell et al. I do not expect you to read all the other books that I have listed above. I am happy to provide additional sources when you want to deepen your understanding on particular topics in the course.

Problem sets are probably the most important part of the course. As a result, I give this year 20% of the grade based on problem set solutions. You may work on the problems individually or in teams, but each student should submit a separate answer sheet by the deadline of the problem set.

I will also give you the opportunity to submit an essay on one of the topics on the list below. In this essay, you should demonstrate your mastery of the material that you have researched and studied independently by writing a 5-6 page essay on your chosen topic. More detailed instructions for the essay are given later. You may also propose a topic of your own and I will determine if it is suitable for this course.

The essay gives you up to 20 extra points for the course where the course maximum number of points is otherwise 20 on problem sets and 80 on final examination.

Tentative Schedule:

- Lectures 1-2: Social Choice, MWG Chapters 21-22, Kreps Chapter 8, OR Chapter 20.

- Lectures 3-4: Assignment and Matching: OR Chapters 8-10, 18.

- Lectures 5-8: Competitive Equilibrium Theory: MWG Chapters 15-18, Kreps 14-15.

- Lectures 9-12: Applications of Equilibrium Analysis: MWG Chapter 15, 19, OR Chapter 11,

Additional readings will be provided in the lectures.

Here is a **list of possible topics for the essay:**

1. Social Choice and Sustainability. (Possible source: Asheim G.B. 2007, Justifying, Characterizing and Indicating Sustainability, Dordrecht: Springer.)

2. Other Regarding Preferences and Equilibrium (Possible source: Martin Dufwenberg, Paul Heidhues, Georg Kirchsteiger, Frank Riedel, Joel Sobel, Other-Regarding Preferences in General Equilibrium, The Review of Economic Studies, Volume 78, Issue 2, April 2011, Pages 613-639, https://doi.org/10.1093/restud/rdq026).

3. Specific Aspects in School Choice (Possible sources depend on the specific issue of your choice).

4. Matching Markets with Prior Investments (Possible source: George J. Mailath, Andrew Postlewaite, Larry Samuelson, Premuneration Values and Investments in Matching Markets, The Economic Journal, Volume 127, Issue 604, September 2017, Pages 2041-2065, https://doi.org/10.1111/ecoj.12400)

5. Debt and Default in GE (Possible source: Yaniv Ben-Ami John Geanakoplos: General Equilibrium Outside the Edgeworth Box: Debt, Fragility, and Multiplicity, mimeo, 2019).

6. Aspects of Equilibrium in Financial Markets (Possible sources depend on the specific issue of your choice)