



FACULTY OF ARTS AND SOCIAL SCIENCES

ECON 502 – Microeconomics II

Spring 2023

Lecture: Monday 08:40 – 11:30 (FASS G049)

Recitation: Thursday 16:40 – 17:30 (FASS G052)

**Updated on 05 April 2023 due to YÖK announcement**

**Instructor:**

**Eren Inci**

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**Teaching Assistant:**

**Sonnur Bas**

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Office Hours : By appointment

**Course Requirements:**

Final Exam (scheduled by Student Resources) : 60%  
Homework Assignments : 40%

**Suggested Textbooks:**

*Microeconomic Theory* (Mas-Colell, Whinston, and Green)  
*Game Theory* (Fudenberg and Tirole)  
*Game Theory for Applied Economists* (Robert Gibbons)  
*The Theory of Incentives* (Laffont and Martimort)  
*Contract Theory* (Bolton and Dewatripont)  
Papers mentioned in the class

**Course Description:**

This course is the second part of the graduate level microeconomic theory sequence. Its main goals are to introduce the basic concepts and tools of game theory and to analyze strategic decisions of economic agents in interactive situations. The first module covers decision making under uncertainty and games of complete information. The second module covers games of incomplete information and basics of theory of incentives and contracts. Some of the topics covered in the class might be familiar to you from undergraduate or previous studies, but where they are they will be treated in greater depth. ECON 501 (or an equivalent course) is a prerequisite for the course.

One important point to mention is that each subject covered in this course builds on the previous ones. Therefore, you should read assigned chapters and/or papers closely from the very beginning of the course and not miss any class. As noted in *Sabancı University Catalogue*, students are expected to attend class. Attendance is also a central concern for me. Moreover, please keep in mind that your active participation in the class has considerable importance in your understanding of the topics.

You are always welcome to ask questions or raise issues of interest in and out of the class. This gives me instant feedback and let me know which concepts are difficult to grasp. If there is anything that you do not understand from the lectures, feel free to come and see me during our office hours. Note that you are held responsible for all readings, assignments, and announcements made in class.

There will be one final exam. No make-up exams will be given unless you have a serious excuse. In such a case, you need to follow the formal procedures of the FASS in a timely manner. You must always document your excuse. The exam grade for an unexcused exam will be zero. What to do with an excused exam is decided on a case-by-case basis. If you have a valid excuse for an exam, you (as a person) must inform me of your situation within three days after the exam. Any excuse after three days will not be considered.

Several problem sets will be assigned and graded during the semester. You are required to hand in problem sets for two reasons. First, in that way, you can increase your understanding of the course material which will positively affect your performance in the exams. Second, as indicated in course requirements above, the problem set performance has significant weight on your final grade. So, you must put fair effort into preparing your solutions. You are encouraged to work on problem sets in groups, but you should hand in your own solutions. Late homework will not be accepted in any condition regardless of the excuse. If you are not in the class on the day a problem set due, you should arrange for someone to turn it in for you.

Academic integrity is central to the mission of higher education. Please observe the highest standards of academic integrity in this course. Any kind of academic dishonesty will not be tolerated. Please review the standards and procedures that are published in the university catalog and on the web, at:

[http://www2.yonerge/Akademik\\_durustluk/E-Academic\\_durustluk.html](http://www2.yonerge/Akademik_durustluk/E-Academic_durustluk.html)

Make sure that the work you submit is in accordance with university policies. If you have any questions, please consult with me. Violations will be reported to the Dean's Office and reviewed by the Committee on Academic Integrity. This could result in failure in the course or even more severe sanctions.

The online content for this course can be found at SUCourse. Every comment related to the course is welcomed.

I wish you a nice and fulfilling semester!

## TOPICS TO BE COVERED

### A. (SOME) COOPERATIVE GAME THEORY

1. Arrow's Impossibility Theorem

### B. DECISION MAKING UNDER UNCERTAINTY

1. Expected Utility Theory
2. Money Lotteries and Attitudes towards Risk

### C. NONCOOPERATIVE GAME THEORY

1. Static Games of Complete Information
  - a. Strategic Form Games
  - b. Nash Equilibrium
2. Dynamic Games of Complete Information
  - a. Extensive Form Games
  - b. Subgame Perfect Nash Equilibrium
3. Static Games of Incomplete Information
  - a. Bayesian Games
  - b. Bayesian Nash Equilibrium
4. Dynamic Games of Incomplete Information
  - a. Perfect Bayesian Equilibrium
  - b. Signaling
  - c. Other Equilibrium Refinements
  - d. Screening

## LEARNING OUTCOMES

Successful student is expected to

- demonstrate a broad (but not necessarily deep) knowledge of some core topics in microeconomic theory (especially game theory and contract theory),
- set up and solve sound microeconomic models analyzing specific problems and ideas,
- identify the standards to attend advanced specialized courses in each particular topic (especially specialized courses in game theory and contract theory)