

COURSE INFORMATION

Instructor: Mehmet Barlo

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Office Hours: By appointment.

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Class: Monday 14:40 - 17:30 – FASS 1101

Teaching Assistant: Gizem Kılıçgedik (gkilicgedik@sabanciuniv.edu)

Recitation: Thursday 13:40 - 14:30 – Online

COURSE OBJECTIVES

This course is to teach formal methods of microeconomics theory. Clearly, this is a serious course in which you ought to learn microeconomics and its related fields. We are going to derive most of the results from primitives, and generally will not take any formulae or technique as given.

BACKGROUND

As this is one of the compulsory courses for graduate economics programs and other students permitted to take this course are already assumed to have the necessary background. For more details on the background needed please contact the instructor. That said, a formal mathematics analysis course is **not** a requirement (yet truth be told, it would be of some valuable help).

TEXTS

I will provide some lecture notes prepared for this course over the years. Moreover, we will **not** follow any particular book word. The below listed books do cover the same material with lots of examples. Moreover, none of them is required, and each of them will be available in the reserve of the IC. Further sources will be announced in lectures.

- *Theory of Value*, G. Debreu;
- *Equilibrium Analysis*, W. Hildenbrand and A. P. Kirman;
- *Lecture Notes in Microeconomic Theory: The Economic Agent*, A. Rubinstein;
- *Microeconomic Theory*, A. Mas-Colell and M. D. Whinston and J. R. Green;
- *A Course in Microeconomic Theory*, D. M. Kreps;
- *Advanced Microeconomic Theory*, G. A. Jehle and P. J. Reny;
- *A Course in Game Theory*, M. J. Osborne and A. Rubinstein.

COURSE CONDUCT & METHODOLOGY

Due to the decision of Sabancı University, **our course will be conducted in hybrid style – both physically (on the campus) and online**. The details of the *hybrid* system I intend to employ emerge as follows:

- All of our lectures are to be conducted **synchronously** and (if the pandemic permits) in **FASS 1101** as long as otherwise announced via the SUCourse system.

- For each of our physical lectures in FASS 1101, we will have a **recorded Zoom meeting**, which will be broadcast live to its participants. Indeed, the online participants will have the opportunity to interact with the physical participants (asking questions, engaging in discussions, etc.).

The record of the Zoom meeting will be shared with the class via the SUCourse system.

- There will be weekly **recitations** conducted **online** by the ECON TA assigned to this course. Your TA will arrange a recorded Zoom meeting every week and share the recording via the SUCourse system.

The recitations will start in the third week of our course (and hence, there are no recitations in the first two weeks of the course).

- **You are to join these meetings** (both the lectures and the recitations) either physically or online. I strictly recommend to follow this course physically.

Nevertheless, all our meetings will be recorded, and these recorded Zoom meetings will be available online for those of you who missed them.

- My advice for you is to follow this course on a timely basis and work every week as the course progresses. If you wait, do not follow the course and accumulate materials, do not come to our meetings to ask questions, and study just before the examinations, then it is highly probable that you will not show a strong performance.

Hybrid teaching methods, I think, are very efficient for those students who want to learn. Therefore, please regard this as a fair warning urging you to come to our meetings, work in a timely manner, and follow the course.

Collective and cooperative work is strongly encouraged. So, I recommend that you study together with your fellow students.

- The examinations of this course will be conducted adhering to the regulations called for by our university. Currently, all midterm and final examinations are to be conducted physically. However, this can change due to the pandemic. If so, we will be bound by the regulations/demands of our university.

In that regard, make sure to follow the university's respective announcements and my announcements via the SUCourse system.

GRADING

- **Attendance** is essential in this course.

That is why I expect each student to be present in every synchronous lecture (either physically or online) of this course.

- **Midterms:** ($2 \times 30\%$ of grade) There will be **two midterms**.

The first midterm will cover all the subjects up to the beginning of the price mechanism. The second will be comprehensive and include all the subjects.

The particular timing of the midterms will be determined together with the students in the class. Moreover, the details of the procedures to be applied in connection with the midterm will be announced via SUCourse prior to the exam.

- **Final:** (40% of grade) The final will be comprehensive –covering all the subjects– and will be administered on the date announced by the ÖK.

Details of the procedure to be applied in connection with the final will be announced via SuCourse prior to the exam.

COURSE CONTENT

The following list gives the list of topics to be covered. You will be responsible for the lecture materials, hence, **following the course material timely is essential.** And now the list:

- Choice, axioms of rationality and bounded rationality, derivation and representation of preferences, utility functions;
- Pure exchange economies;
- Welfare concepts: Fairness, Pareto optimality and individual rationality;
- Cooperative solution concepts, and the core;
- Normal-form games, non-cooperative solution concepts, domination and Nash equilibrium;
- The price mechanism, the theory of demand, the properties of demand *functions*, and aggregation of demand;
- The competitive equilibrium and its characterization and existence;
- Welfare properties of competitive equilibrium: Two fundamental theorems of welfare economics, their policy implications, and Debreu-Scarf Limit Theorem;
- Critical conditions regarding the failure of welfare properties of competitive equilibrium: Strategic behavior, non-private consumption (public goods) and externalities, and asymmetry of information.

If time allows, we will select some of the subjects (listed according to my own preferences):

- Uncertainty, von Neumann–Morgenstern Expected Utility Theorem, monetary lotteries, attitudes towards risk; Asymmetry of information, implementation, no-veto and Maskin monotonicity;
- Repeated interaction, dynamic competitive equilibrium, and the use of competitive equilibrium in modern macroeconomics.
- Production: Derivation of cost functions, cost-benefit analysis and competitive equilibrium with production;

POLICIES: EXAMINATIONS AND SCHOLARLY CONDUCT

1. All answers to the midterms and the final must be neatly and clearly written. The grader is the final judge of what is legible and may request specific students to type their work.
2. During physical midterms and final examinations (and their make-up examinations if granted), all students are to prove their identity (via a formal id card) and sign the attendance sheet, which will be taken by the proctor(s) of the examination. At the end of the examination, every student (whose name appears on the attendance sheet) has to turn in their work. Failure to do so counts as a violation of rules (*Kural İhlali*) and would result in the draft of the so-called *Kural İhlal Tutanağı* that may result in disciplinary consequences.

On the other hand, during online midterms and final examinations (and their make-up examinations if granted), the attendance sheet will be taken by the proctor(s) of the examination using the Zoom participation list. That is why every student has to join the Zoom meeting of the examination with their formal “sabanciuniv.edu” email account.¹ Students’ ids will be recorded (into the online Zoom meeting recording) by asking them to show their faces and formal id cards to the camera. In furtherance, during online midterms and final examinations (and their make-up examinations if granted), the webcam of the student must always be on. Otherwise, the examination at hand will be void. At the end of the examination, every student (whose name appears in the Zoom participation list) has to turn in their work. Failure to email the exam paper to the instructor and/or proctor counts as a violation of rules (*Kural İhlali*) and would result in the draft of the so-called *Kural İhlal Tutanağı* that may result in disciplinary consequences.

3. Make-up exams are granted only in case of a valid and documented reason. Absence in exams without any valid and documented excuse will result in a grade of 0 from that exam. In case of an illness or other documentable excuses, the student is required to contact me within three business days with a petition summarizing his/her situation and preferably

¹Students are not allowed to utilize other email accounts unless explicitly permitted by the instructor.

presenting documentation for their excuses.² I will also accept a formally written email from the sabanciuniv.edu email address of the student, and hence the petition does not have to be physical. The documentation could be in the form of a formal doctor's note from a state hospital³ or police/insurance report in case of a minor traffic accident providing details; and so and so forth. All verified documentation has to be submitted physically in three business days following the expiration of the excuse or the verification date. If the instructor finds the excuse of the student valid, then either a make-up examination will be arranged, or the corresponding points from that examination will be shifted to the consequent examination. I wish to emphasize that due to YÖK regulations, I have to be quite strict about these formalities.

4. A student who fails to show up for the final examination without a valid excuse and does not take the make-up examination of the associated examination will receive N/A (and not F) as his/her final grade.
5. The definition for scholastic dishonesty is as given in the rules and regulations/announcements of the Sabancı University and include aspects concerning online evaluation/examination practices.
6. In case of scholastic dishonesty, no credits will be given for that particular work. Cheating during written work will result in an F for the course. All incidents of scholastic dishonesty will be reported to FASS.

²These regulations are from the “Sabancı Üniversitesi Lisans Eğitim ve Öğretim Yönetmeliği” – *Resmi Gazete No: 29607 Tarih: 28 Ocak 2016 Madde 22-2-a.*

³A doctor's note taken from a doctor's private practice does not count as formal. In the case of private hospitals, the doctor's note has to be verified by the university health service within five business days following the expiration date of the doctor's note.