

COURSE INFORMATION

Instructor: Mehmet Barlo

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Office Hours: By appointment.

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Class: Wednesday 14:40 - 17:30 FASS 1101

Teaching Assistant: Bakican Ayna (bakican.ayna@sabanciuniv.edu)

Recitation: Monday 11:40 - 12:30 – FASS G052

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. 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 only physically (on the campus)**. The details of the system I intend to employ emerge as follows:

- Our lectures will be conducted **physically** (as long as the pandemic permits) in **FASS 1101**.

I will be away between 26/10/2022 - 01/11/2022 (inclusive) to attend and present my work at a conference. So, there will be no lectures on the 26th of October. I intend to make up for the lost week by adding extra lecture hours. Such required and appropriate changes will be discussed in class and announced via SUCourse.

- **Attendance** to this course is **mandatory**. That is why for each of our physical lectures in FASS 1101, we will take attendance.

Moreover, **students who attend our lectures 4 or fewer weeks without valid excuses will not be granted final examinations**; their finals will not be eligible for grading.¹ Such students will be awarded an NA letter grade.²

These are strict rules.

- There will be weekly **recitations** conducted **physically** by Ar. Gör. Bakican Ayna in FASS G052 between 11:40 - 12:30 on Mondays. Recitation attendance will be taken.

We will not have a recitation in the first week.

Required and appropriate changes to recitations may be needed during our course. Such changes will be announced (via the SUCourse) after being discussed in our lectures.

- 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.

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.

¹Please refer to Policies item 5 for the details about valid excuses.

²Attendance in a lecture demands spending at least half of the lecture time in class. Thus, a student signing the attendance document at the beginning of the lecture and leaving in the fifth minute will not be counted as attending the class; his/her name will be crossed from the list, and this instance will be formally documented on the attendance sheet. Similarly, this also holds for a student coming very late and signing the attendance at the end of the lecture.

GRADING

- **Attendance** is essential in this course. Indeed, I am bound by law (Resmi Gazete 11/02/2020 – No. 31036 p.13) to announce the need for attendance in writing (as is done in the current syllabus) and monitor students' attendances during the course duration. I, thereby, announce in writing that I expect each student to be present in every lecture of this course and will monitor students' attendances by taking attendances in our lectures.

- **Homeworks:** (%20 of grade) There will be multiple homework assignments given in our lectures and/or via the SUCourse system. No late homework is to be accepted.

- **Midterms:** ($2 \times$ %20 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. Homeworks should be turned in by the announced deadline. Our policy is strict and decrees that *no late homeworks will be accepted*.
2. All answers to homeworks, midterm, 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.
3. Collective and cooperative work on homeworks is strongly encouraged. However, any homework *must* be written up separately by the owner of it. Additionally, any homework *must* contain the list of the fellow students with whom the work was done under the heading “List of Collaborators”.

Notice that students are encouraged to work together. However, this does not extend to outsiders under any circumstances! The cooperative work permit is for your fellow students only. If I catch instances of a student getting his/her homework done by an outside third party (with or without compensation), I will pursue this with all the disciplinary regulations available.

4. During physical midterm 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.³

5. 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 presenting documentation for their excuses. 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 hospital⁴ 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.
6. Students who attend our lectures 4 or fewer weeks without valid excuses (see Policies item 5) will not be granted final examinations and their finals will not be eligible for grading. Further details about the procedure(s) to be applied in connection with the final will be announced via SUCourse prior to the exam.
7. 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.
8. 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.
9. 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 for disciplinary action.

³On the other hand, during online midterm and final examinations and their make-up examinations if granted (in case that online examinations are needed and demanded by the Sabancı University), 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. Students are not allowed to utilize other email accounts unless explicitly permitted by the instructor. 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 midterm 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 on 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.

⁴A 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.