

## COURSE INFORMATION

**Instructor:** Mehmet Barlo

**Office/Phone:** FASS 1024; (90) 216 483 9284

**Office Hours:** By appointment.

**email:** barlo@sabanciuniv.edu

**web-page:** SUCourse

**Class:** Tuesday 13:40 - 14:30; Thursday 14:40 - 16:30 – FASS 1103

**Teaching Assistant:** Sonnur Baş (sonnur.bas@sabanciuniv.edu)

**Recitation:** Tuesday 14:40 - 15:30 – FASS 1098

## COURSE OBJECTIVES

The goal of this course is to introduce students to and obtain their acquaintance with the formal methods of microeconomics theory. This is a *serious* course in which you ought to learn to understand microeconomics and its related fields. We are going to derive most of the results from primitives and will not take any formulae as given. Moreover, we will associate what we have learned with practical applications.

## BACKGROUND

You are expected to be familiar and fluent with introductory calculus and ECON 201 and 204. In this course, we are going to read and write some proofs of selected theorems. We may review some aspects of writing proofs if I see fit. Moreover, formal mathematics analysis is **not** required, yet, it would be of great help for interested students. That is, even though helpful, mathematics courses such as MATH 301, Introduction to Analysis, are **not** a requirement (in fact, not that essential for getting high grades) in this course.

## TEXTS

We will not follow a particular book word for word, yet, 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.

- *Intermediate Microeconomics: A Modern Approach*, Hal Varian; this is maybe the most commonly used microeconomics textbook in the world. It is a very good book that you want to keep in your library. The level of it regarding this course is almost suitable, but it is not as formal as desired.
- *Advanced Microeconomic Theory*, G. A. Jehle and P. J. Reny; this is one of the most popular graduate microeconomics textbooks; it is formal and is intended for the first year of graduate economics studies. It requires more technical knowledge than our course, but going over it with the knowledge you have acquired in this course may help you a lot in getting a clear vision for the subjects at hand. You might want to buy it for your library.

## 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 1103**.

I will be away between 26/10/2022 - 01/11/2022 (inclusive) to attend and present at a conference. So, there will be no lectures on the 27th of October and the 1st of November.

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 1103, we will take attendance.

Moreover, **students who attend our lectures 8 or fewer times without valid excuses will not be granted final examinations**; their finals will not be eligible for grading.<sup>1</sup> Such students will be awarded an NA letter grade.<sup>2</sup>

These are strict rules.

- There will be weekly **recitations** conducted **physically** first by me then by Ar. Gör. Sonnur Baş in FASS 1098 between 14:40 - 15:30 on Tuesdays. Recitation attendance will be taken.

We will not have a recitation in the first week. Then, I will conduct the recitations on the 11th, 18th, and 25th of October to make up for the time lost, thanks to my participation in an economics conference. Following the 1st of November, the recitations will be done by Ar. Gör. Sonnur Baş.

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.

Notwithstanding, please do not send me time conflict permits regarding this time slot. We are going to use it. If you intend to take this course, come to our first meeting on Tuesday the 4th and discuss your situation with me. If permitted, you would be able to “add” the course during the add-drop period.

- 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. Please regard this as a fair warning urging you to come to our meetings, work in a timely manner, and follow the course.
- 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

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<sup>1</sup>Please refer to Policies item 5 for the details about valid excuses.

<sup>2</sup>Attendance 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 in the 40th minute and signing the attendance at the end of the lecture.

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

Depending on our speed and following my assertion to have a midterm, we will determine the time of the midterm together in class. I reserve the right to serve as a tie-breaker and/or a dictator in cases of disagreements among the students.

## GRADING

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

That is why I expect each student to be present in every lecture of this course.

- **Take-Home Examinations:** (%30 of grade) There will be 4 or 5 take-home examinations (depending on our speed), each with a due date of 1 (or 2) week(s).

Important Issues concerning take-home examinations:

- Students are encouraged to work together. Thus, come together and do the questions in a group. But, no outsiders under any circumstances! This cooperative work permit extends only to your fellow students, and if I catch you getting your homework done by an outside party (with or without compensation), I will pursue this with all the disciplinary regulations available.

Notice that these are not homework assignments but take-home examinations. Thus, according to YÖK regulations, they are *subject to disciplinary regulations*.

- Each student has to **submit his/her work separately**. I will not accept “group answers”. Those who submit such work will get 0 from that particular work.
  - The front page of the work **MUST** contain all the names of the students that you worked with. These names have to be listed in a “*list of collaborators*”.
  - As the answer keys will be posted online at the due date, **no late take-home examinations will be accepted**. This is a strict rule, so please adjust yourselves accordingly.
  - Further details about the procedure(s) to be applied in relation to take-home examinations will be announced via SUCourse.
- **Midterm:** (%30 of grade) There will be **one midterm**.

The midterm will cover all the subjects up to the beginning of the price mechanism.

The particular timing of the midterm 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.

**Students who attend our lectures 8 or fewer times 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.

## 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:

- Individual choice, rationality, bounded rationality, and derivation of preferences;
- Representation of preferences: Utility functions;
- Pure exchange economies;
- Welfare concepts: Pareto optimality, individual rationality and the Core;
- The price mechanism, the theory of demand, the properties of demand *functions*, and aggregation of demand;
- The Competitive (general or Walrasian) equilibrium
  - Introduction to the Walrasian equilibrium and its formal definition;
  - Existence of competitive equilibria: The Walrasian auctioneer interpretation;
  - Welfare properties: 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;
  - Asymmetry of information.

After finishing with the materials listed above, we will cover selected topics from the following list (while the particular selection from these topics will depend on the preferences of the class):

- Production: Derivation of cost functions, cost-benefit analysis;
- Competitive equilibrium with production;
- Repeated interaction, dynamic competitive equilibrium;
- The use of Walrasian equilibrium in modern macroeconomics.
- Choice under uncertainty:
  - von Neumann–Morgenstern Expected Utility Theorem;
  - Monetary lotteries: Attitudes towards risk.
- Introduction to Financial Economics: Competitive equilibrium under uncertainty;
  - Assets (securities), and investments (portfolio construction),

- Arrow-Debreu Equilibrium and Radner (Sequential) Equilibrium,
  - Complete and Incomplete Markets.
- Other selected topics.

## POLICIES: EXAMINATIONS AND SCHOLARLY CONDUCT

1. Take-home examinations should be turned in by the announced deadline. Our policy is strict and decrees that *no late take-home examinations will be accepted*.
2. All answers to take-home examinations, 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 take-home examinations is strongly encouraged. However, any take-home examination *must* be written up separately by the owner of it. Additionally, any take-home examination *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. Indeed, notice that these are not homework assignments but take-home examinations. Thus, according to YÖK regulations, they are subject to disciplinary practices.

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.<sup>3</sup>
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.

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<sup>3</sup>On 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.

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.<sup>4</sup> 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 hospital<sup>5</sup> 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 8 or fewer times 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.

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<sup>4</sup>These regulations are from the "Sabancı Üniversitesi Lisans Eğitim ve Öğretim Yönetmeliği" – *Resmi Gazete No: 29607 Tarih: 28 Ocak 2016 Madde 22-2-a.*

<sup>5</sup>A 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.