



Faculty of Arts and Social Sciences

Macroeconomics II - ECON 504

Spring 2021

Instructor: İnci Gümüş
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Lectures: Monday 14:40 - 17:30

Recitation: Tuesday 11:40 - 12:30

Office Hours: By appointment

Zoom link for the lecture and recitation: <https://sabanciuniv.zoom.us/j/91078703477>

Meeting ID: 910 7870 3477

Teaching assistant: TBA
Office hours: By appointment

Course Description:

This course is the second part of the macroeconomic theory sequence that aims at introducing you to the methods of, and some of the issues in modern macroeconomics. We will start the semester by studying the deterministic and stochastic versions of the neoclassical growth model, using dynamic programming and through computation of linear approximations. We will then continue by introducing taxation to the same framework and study implications of lump-sum and distortionary taxation.

The main source of readings for the course is the *lecture notes*. Supplementary readings for each topic are listed below. The reading material can be obtained at the Reserve Collection of the Information Center. Additional readings may be assigned throughout the semester.

Main References:

- Lars Ljungqvist and Thomas Sargent, 2004, *Recursive Macroeconomic Theory*, Second Edition, The MIT Press.
- Nancy L. Stokey and Robert E. Lucas, Jr. with Edward C. Prescott, 1999, *Recursive Methods in Economic Dynamics*, Harvard University Press.

Grading: Midterm: 50%
Final: 50%

Rules of Conduct

- The course will be conducted through synchronous (live) lectures via Zoom. The lectures will be recorded and uploaded on the Google shared drive for the course.
- Problem sets will be graded in three grading categories: check, check plus and check minus. *Your grades in the problem sets will be a decision factor in determining your letter grade.*
- Recitation sessions will not be held every week. In the weeks that will have a recitation, it will be announced by email.
- While taking the exams, you will also have to attend a Zoom session. You have to use your official Sabancı University e-mail account to log into Zoom.
- The Zoom session for the exam will be recorded and you have to keep your webcam on throughout the session (your face should be visible in the camera).
- The exams will be closed-book, meaning that you are not allowed to use your text book, notes, slides or any other course related material during the exam.
- In case of any suspicious behavior that looks like cheating during the exams, the student will be asked to take an oral exam about the exam material. An inconsistent and poor performance in the oral exam can lead to a downward adjustment in your grade or your grade can be completely nullified. In addition to this, any attempts at cheating will be reported to the Dean's office and lead to disciplinary action.
- Make-up exams are granted only in case of a valid and documented reason. In case of an illness, you are required to bring a formal doctor's note from a hospital, which has to be verified by the university health service.
- Students who fail to show up for the exams indicated in the Syllabus without a valid and documented reason and those that do not take the make-up exams for the missed exams will receive N/A as their final grade.
- The definition for scholastic dishonesty is given in the rules and regulations of the Sabancı University. Cheating during written work will result in a course grade of F. All incidents of scholastic dishonesty will be reported to the Dean's Office.
- The syllabus is subject to change depending on changing circumstances and the regulations of the Higher Council of Education (YÖK). Students will be notified prior to any changes.

Course Outline

- Review of the Neoclassical Growth Model and Dynamic Programming Under Certainty
Reading: - Ljungqvist and Sargent, Chapter 4.
- Recursive Competitive Equilibrium

- The Neoclassical Growth Model with Exogenous Technical Progress and Calibrating the Growth Model

Readings: - King, R. G., Plosser, C. I., Rebelo, S. 2002. "Production, Growth and Business Cycles: Technical Appendix." *Computational Economics*, 20, 87-116.

- Thomas F. Cooley and Edward C. Prescott, "Economic Growth and Business Cycles," in *Frontiers of Business Cycle Research*, T.F Cooley, editor. Princeton University Press, 1995.

- Stochastic Growth and Real Business Cycle Models

Readings: - Ljungqvist and Sargent, Chapter 2.

- Stokey and Lucas, pages 16-22, 319-334.

- King, Robert G. & Rebelo, Sergio T., 1999. "Resuscitating Real Business Cycles," *Handbook of Macroeconomics*, in: J. B. Taylor & M. Woodford (ed.), *Handbook of Macroeconomics*, edition 1, volume 1, chapter 14, pages 927-1007.

- Log-linearization and Solving Linearized Rational Expectations Models

Readings: - Azariadis, Costas. 1993. *Intertemporal Macroeconomics*, Chapter 4.

- Uhlig, Harald. 1995. "A Toolkit for Analyzing Nonlinear Dynamic Stochastic Models Easily," Discussion Paper 97, Tilburg University, Center for Economic Research.

- Blanchard, O. J., Kahn, C. M., 1980. "The Solution of Linear Difference Models under Rational Expectations," *Econometrica* 48(5), pp. 1305-1311.

- Christiano, L. J., 2002. "Solving Dynamic Equilibrium Models by a Method of Undetermined Coefficients," *Computational Economics*, 20(1), pp. 21-55.

- Introducing Taxes into the Neoclassical Growth Model

➤ Lump-sum Taxes, Government Spending and Ricardian Equivalence

Reading: Ljungqvist and Sargent, Chapter 10.

➤ Distortionary Taxes and Optimal Taxation with Commitment

Reading: Ljungqvist and Sargent, Chapter 15.