

MACROECONOMIC THEORY II
ECON 210B - Winter 2024
University of California, San Diego

Teaching Team

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Syllabus - Version 1.0

DESCRIPTION OF THE COURSE

In Econ 210B we build on what you learned in Econ 210A and continue exploring the techniques that researchers use to develop and study models of dynamic aggregate economies and their applications. The class is structured into four modules: (i) dynamic optimization in continuous time (a.k.a. optimal control), (ii) equilibrium asset pricing, (iii) incomplete markets, (iv) search and matching. Within each module we will study the basic theory and tools, and explore some of their most important applications. Our learning objective is to develop the skills useful for building, solving, and extracting insights from dynamic economic models, which constitute an important instrument to investigate welfare-relevant economic questions.

This syllabus covers all the important organizational elements for the class. I consider the Syllabus my contract with you and I commit to uphold it as written. However, events outside our control can change the conditions under which the class is taking place. While I do not anticipate doing so, situations may arise that require adjustments of the class rules to ensure that the quality of your learning is preserved. I commit to keep you promptly informed and included in the decision process. Our decisions will be informed by UCSD's Return to Learn policies, which can be found at <https://returntolearn.ucsd.edu/>

COURSE ORGANIZATION

We meet on Mondays and Wednesdays from 9:30am to 10:50am Pacific Time in SSB 107. Facundo (our TA) will schedule a weekly discussion session. I will hold office hours on *Fridays* 3:30pm to 5:00pm Pacific Time both in person and on Zoom. If you have questions/comments/doubts/complaints, you are strongly encouraged to stop by. If you cannot make it at the scheduled time, I will be happy to set up an appointment at a time convenient for both of us.

Four problem sets will be assigned on the material covered in class. The tentative due dates for the problem sets are indicated in the tentative class schedule so you can plan ahead. I strongly encourage you to work in study

groups on the assignments; however, the responsibility for the content of the homework remains individual and I expect you to turn in your own version of the answer. Of the four problem sets assigned, only three will count towards your final grade; the one with the lowest grade will be dropped.

There will be two exams in the quarter: a midterm exam and a final exam. The dates are as follows

- **Midterm Exam, Monday February 12th, class time.**
- **Final Exam, Wednesday March 20th from 8 am to 11 am. (*day and time are to be confirmed*)**

Your final grade in the class will be determined as a weighted average of your participation (5%), your grade in the problem sets (20%), your grade in the midterm (35%) and your grade in the final exam (40%).

Participation points are associated with submitting answers to class reflection notes. Every two weeks I will ask you three questions to help you reflect on what was covered. Answers will be evaluated on the basis of effort and completion. Participation totals will be evaluated dropping the lowest score out of the five assignments. Reflection questions are posted on Wednesdays at 11:00 am and are due on Sundays at 11:59 pm.

TEXTBOOKS AND LECTURE NOTES

There is no official textbook for the class. We will use material from textbooks that you should always keep as a handy reference: Acemoglu, *Introduction to Modern Economic Growth*, 2014; Ljungqvist and Sargent, *Recursive Macroeconomic Theory*, 3rd edition, MIT press, 2012 (there is now a 4th edition available as well); Blanchard and Fisher, *Lectures on Macroeconomics*, 1989 (oldie but goodie). In addition, references about specific topics will be provided during the lectures and posted in the class page on Canvas.

ACADEMIC INTEGRITY

I deeply value creating a fair and safe community among students in my classes. I am committed to uphold academic integrity as a fundamental principle behind our interactions. *You, as student, are expected to do your own work.* Cheating, plagiarism, fabrication, lying, bribery, threatening behavior and assistance to acts of academic dishonesty are examples of behaviors that violate academic integrity. All students of UC San Diego are responsible for knowing and adhering to the UCSD policy on Academic Integrity. Ordinarily, a student engaged in any act of academic dishonest will receive a failing grade for the course. In addition, all incidents of academic misconduct shall be reported to the Academic Integrity Office. Depending on its findings, students who are found to be in violation of the academic integrity policy will be subject to non-academic sanctions, including but not limited to university probation, suspension, or expulsion. The Academic Integrity Office can be contacted by email at aio@ucsd.edu or by telephone at 858-822-2163. Additional information regarding the University Academic Integrity policy is available at <https://academicintegrity.ucsd.edu/>.

MISSED EXAMINATIONS

No make-up exams will be given in this class. You must take the final exam in order to receive a grade in this course. The date is written above, be sure to mark your calendar. If you miss the midterm exam with a university accepted excuse, the weight of the final exam will be increased accordingly. Excuses for missed exams must be pre-approved by me (except when this is not possible in an emergency situation). A student who misses an exam due to physical illness will be required to provide documentation from a health care professional indicating why the student was physically unable to take the exam. All documentation must be provided to

me within two working days of the student's return to campus. Failure to comply with any of the above in the specified manner will result in a grade of zero (0) for the exam.

UNIVERSITY POLICIES AND RESOURCES

Conduct Code. To foster the best possible working and learning environment, UC San Diego strives to maintain a climate of fairness, cooperation, and professionalism. UC San Diego's Principles of Community illustrate the expectations of all members of our community. Consistent with such principles, the Student Conduct Code underscores the pride and the values that define UCSD's community, while providing students with a framework to guide their actions and behaviors. I recommend reviewing the Student Conduct Code to make sure you are familiar with the behavior that is expected from you in class and on campus in general.

Disability Accommodations. Campus policy regarding disabilities requires that faculty adhere to the recommendations of the Office for Students with Disabilities (OSD). Any student eligible for and needing academic adjustments or accommodations because of disability should submit to me a letter from OSD describing appropriate adjustments or accommodations and should arrange to meet with me as soon as possible so that arrangements can be made in a timely manner. University policies regarding disabilities are available at <https://osd.ucsd.edu/>. Appointments with OSD (phone or in-person) can be made by calling 858.534.4382 or by email at osd@ucsd.edu.

Religious Observance. Campus policy regarding religious observances requires that faculty make every effort to reasonably and fairly accommodate all students who, because of religious obligations, have conflicts with scheduled examinations, assignments or required attendance. See full details of policies on examinations here. If you have scheduling conflict covered by this policy, please let me know as soon as possible so that we can reschedule the relevant assignment/examination.

Harassment Policy. The University Policy on Discrimination and Harassment applies to all students, staff and faculty. Any student, staff member or faculty member who believes (s)he has been the subject of discrimination or harassment based on race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation, or political philosophy, should contact the Office for the Prevention of Harassment and Discrimination (OPHD) at (858) 534-8298, ophd@ucsd.edu, or <https://ophd.ucsd.edu/report-bias/index.html>.

Data Privacy. The University adheres to the standards for student privacy rights and requirements as stipulated in the Federal Rights and Privacy Act (FERPA) of 1974, see <https://catalog.ucsd.edu/about/policies/notification-of-rights/index.html>.

Counseling. Managing the many challenges of being a graduate student can be very stressful. Always remember that talking to somebody that is professionally trained to help is just an email, or short walk, away: <https://caps.ucsd.edu/>.

ECON 210B - TENTATIVE CLASS SCHEDULE - WINTER 2024

Week	Date	Topic
Week 1	Jan 8	Introduction: Optimal Control
	Jan 10	The Maximum Principle
Week 2	Jan 15	<i>Martin Luther King Jr. Day</i> - no class
	Jan 17	Infinite Horizon
Week 3	Jan 22	Comparative Dynamics
	Jan 24	Stochastic Optimal Control
	Jan 28	<i>Problem Set 1 Due</i>
Week 4	Jan 29	Asset Pricing: Facts and Fundamental Theorem
	Jan 31	Arrow-Debreu Complete Markets
Week 5	Feb 5	Equilibrium Asset Pricing: Lucas-Tree Model
	Feb 7	Equilibrium Asset Pricing: Puzzles
	Feb 11	<i>Problem Set 2 Due</i>
Week 6	Feb 12	Midterm Exam - class time
	Feb 14	Incomplete Markets and Heterogeneity: Preliminaries
Week 7	Feb 19	Review of Imrohoroglu-Aiyagari Model (asynchronous)
	Feb 21	Aiyagari-Hugget-Bewley Models
Week 8	Feb 26	Heterogeneity and Inequality
	Feb 28	Overlapping Generations: Endowment
	Mar 3	<i>Problem Set 3 Due</i>
Week 9	Mar 4	Overlapping Generations: Production
	Mar 6	Search Frictions: McCall Model
Week 10	Mar 11	Matching Frictions: Diamond-Mortensen-Pissarides
	Mar 13	Search and Matching: Dynamics and Inefficiency
	Mar 17	<i>Problem Set 4 Due</i>
Finals Week	Mar 20	Final Exam , 8 am - 11 am