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Macroeconomic Theory I

Esteban Rossi-Hansberg

Economics 503, Fall 2020 (2nd Half)

Syllabus

Overview: This is a graduate course in the first-year macroeconomics field. I will cover some basic aggregate dynamic frameworks with their applications. In particular, I will focus on deterministic and stochastic Dynamic Programming, Search models, Business Cycle models, Overlapping Generations models and models of Firm Dynamics and their aggregation.

Organization: The class meets virtually on Mondays and Wednesdays from 9:00am to 10:30am in Zoom at: https://princeton.zoom.us/j/93410390982 All class materials, including access to the Zoom classes, will be on the class website in Blackboard. My expectation is that you attend class on Zoom, keep you video on, and participate in class.

Precepts and Office Hours: There will be weekly precepts on Fridays from 10:30pm to 12:00pm as in the first half at the same Zoom location. The preceptor is Hugo Lhullier (hugo.lhuillier@princeton.edu). I will hold office hours on Thursdays at 3:00pm on Zoom at https://princeton.zoom.us/my/rossihansberg.

Grading: Your grade for my part of the course will be based on four problem sets, counting for 40% of the grade, and a final exam, counting for 60%. The final exam will be on Wednesday December 9th from 9:00am to 12:00am Eastern US Time. It will be distributed, and your answers will have to be submitted, by E-Mail.

Recommended Books: I will use slides in the class and most of the relevant material will be in the slides. However, the following books will be useful. I might assign some papers later in the course as well.

- Stokey, Lucas, and Prescott, 1989, "Recursive Methods in Economic Dynamics"
- Irigoyen, Rossi-Hansberg and Wright, 2002, "Solutions Manual for Recursive Methods in Economic Dynamics"
- Ljungqvist and Sargent, 2004, "Recursive Macroeconomic Theory"
- Judd, 1998, "Numerical Methods in Economics"

Topics:

- **Week 1:** Deterministic Dynamic Programming

- **Week 2:** Stochastic Dynamic Programming and the Search Model
- **Week 3:** Recursive Competitive Equilibrium
- **Week 4:** Business Cycles
- **Week 5:** Overlapping Generations
- **Week 6:** Firm Dynamics and Aggregation