1 Course Objectives

This course is set up to provide advanced master students and PhD students with a set of working tools for applied, quantitative economic analysis and research. The course teaches basic tools of modern macroeconomics, which has direct applications to a broad set of fields in economics (labor economics, financial economics, development, public finance). The ultimate goal of this course is to learn to use a variety of models that can be used to give quantitative answers to a number of economic questions.

The emphasis will be on economic rigor, i.e. the target is to learn tools that will be useful later in a variety of contexts. The course, hence, is not a survey of topics.

2 Administrative

2.1 Lectures – time and place

Lectures: Wednesday 10:15-12:00
Seminars: 16:15-18:00

First lecture: Wednesday January 14th 10:15-12:00

2.2 Prerequisites / grading

Students in this class are expected to have taken ECON 4310 or other macro courses at the same level. Grade will be given based on hand-in assignment given throughout the semester and class presentation or a close-book written exam. There will be four homework assignments and the suggested solutions will be discussed in seminars. Students are encouraged to work cooperatively and endeavor to solve the problems before the solutions are posted.

2.3 Office hours

By appointment.
3 Syllabus

Our main text will be *Recursive Macroeconomic Theory* by Lars Ljungqvist and Thomas Sargent and several outstanding sets of lecture notes written by Dirk Krueger. These will be supported by a few articles.

Please note that the set of required readings might be modified during the semester, in which case we will update this document on the course web-page.

3.1 Readings

3.1.1 Required books and lecture notes


- Hanno Lustig: *Lecture Notes* (ref: Lustig)
  [http://www.sscnet.ucla.edu/05F/econ221a-1/notes.pdf](http://www.sscnet.ucla.edu/05F/econ221a-1/notes.pdf)

- Dirk Krueger: *Consumption and Savings: Theory and Evidence* (ref: Krueger-CS)
  [http://www.wiwi.uni-frankfurt.de/professoren/krueger/teaching/ws0506/macrofield/consbookdirk.pdf](http://www.wiwi.uni-frankfurt.de/professoren/krueger/teaching/ws0506/macrofield/consbookdirk.pdf)

  Dirk Krueger: *Macroeconomic Theory* (ref: Krueger-MT)
  [http://www.wiwi.uni-frankfurt.de/professoren/krueger/teaching/ws0506/macromh/PhdLecture.pdf](http://www.wiwi.uni-frankfurt.de/professoren/krueger/teaching/ws0506/macromh/PhdLecture.pdf)

3.1.2 Suggested books


- Angus Deaton: *Understanding Consumption* (Oxford University Press, 1992)


3.1.3 Articles

see reading lists in lecture plan

4 Lecture Plan

4.1 Overview

The four topics of the course are:
a. Complete market and perfect risk sharing (Lectures 1-3)

b. Incomplete markets and heterogeneous agents (Lectures 4-7)

c. Dynamic contracts (Lectures 8-10)

4.2 The lectures

1. Wednesday, January 14, 2009

   Arrow-Debreu Equilibrium and Perfect Risk Sharing
   Required readings:

   ● Krueger-CS Chapter 3.1.1

2. Wednesday, January 21, 2009

   Negishi method, sequential market equilibrium, and recursive competitive equilibrium
   Required readings:

   ● Krueger-MT Chapter 2
   ● Krueger-CS Chapter 3.1.1
   ● Ljungqvist and Sargent, Chapter 8

   Supporting material:

     The Economics of Missing Markets, Information and Games, Claredon Press

3. Wednesday, January 28, 2009

   Aggregation under complete markets

   Required readings:


   Supporting materials

4. Wednesday, February 4
Permanent Income Life Cycle Model (PILCH) under Certainty Equivalence

Required readings:

- Krueger-CS Chapter 3.2

Additional materials


5. Wednesday, February 11
PILCH-partial equilibrium extension

Required readings:

- Krueger-CS Chapter 4

Supporting material:


6. Wednesday, February 18, 2009
PILCH-general equilibrium without aggregate uncertainty (Aiyagari-Huggett-İmrohoroğlu Model)

Required readings:

- Krueger-CS Chapter 5.1
- Sargent and Ljungqvist, Chapter 16-17.

Supporting material:


7. Wednesday, February 25, 2009

PILCH-general equilibrium with aggregate uncertainty

Required readings:

• Krueger-CS Chapter 5.2
• Sargent and Ljungqvist, Chapter 17.14

Supporting material:


8. Wednesday, March 4, 2009

Equilibrium with Limited Enforcement

Required readings:

• Lustig, Part II
• Ljungqvist and Sargent, Chapter 20

Supporting material:


9. **Wednesday, March 11, 2009**

Equilibrium with Asymmetric Information

Required readings:

- Lustig, Part III
- Ljungqvist and Sargent, Chapter 19

Additional material:


10. **Wednesday, March 18, 2009**

Equilibrium with Hidden Savings

Required reading:

- Lustig, Part III
- Ljungqvist and Sargent, Chapter 19

Additional material:


**Break - Take-home assignment**
11. T.B.A
12. T.B.A
13. T.B.A