

# 8309 - ADVANCED MACROECONOMICS

Fall 2009

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## Textbooks:

The textbook for the course is:

- D. N. Dejong and C. Dave, *Structural Macroeconometrics*. Princeton University Press (2007)
- additional material will be suggested to you during the course and posted on the course website

At times you may find it to useful to look at:

- O. J. Blanchard, S. Fischer, *Lectures on Macroeconomics*. MIT Press (1989), also available in Italian by Il Mulino
- D. Romer, *Advanced Macroeconomics*. McGraw-Hill, 3<sup>o</sup> ed. (2006)
- F. Canova, *Methods for Applied Macroeconomic Research*, Princeton Press (2007)

## Course Objectives

The course introduces students to the techniques of modern macroeconomics analysis.

## Other arrangements

- The course consists of 17 two-hour lectures and 7 exercise classes (dates, time and classrooms to be announced). Students are required to attend all classes and lectures and turn in 6 problem sets. (Group work is allowed for problem sets. Each group should have no more than 3 students.)
- There will be a mid-term exam on October 26<sup>th</sup>, 2008 at 10.30 a.m.
- The final exams will be held either
  - at 10.30 a.m. on: January 13<sup>th</sup>, 2009,
  - or February 3<sup>rd</sup>, 2009 at 10.30 am; September 8<sup>th</sup>, 2009 at 10.30 am.
- Up until the exam of February 3<sup>rd</sup>, 2009, final grades will be based on:
  - 30% for problem sets;
  - 35% for the mid-term exam;
  - 35% for the final exam.
- Students can choose to take the final either on January 13<sup>th</sup> **or** February 3<sup>rd</sup>, 2009. Those students who have failed the mid-term exam, will have a make-up option with additional questions during the final exam.
- Those students who do not pass the exam in either January or February, will have a make-up option on September 8<sup>th</sup>, 2009. In this case the final grade will be 100% based on this exam.

## Schedule

(Lecture classes are on Tuesday (Aula 201) and Thursday (Aula 201) from 4:15 to 5:45 pm.

## Program

### September 15 – October 22

- 1) Introduction: the Kydland and Prescott revolution
- 2) Solving Dynamic Stochastic General Equilibrium (DSGE) Models
- 3) Preparing the data for empirical analysis: filtering – intro to the frequency domain
- 4) Summarizing time series behaviour
- 5) Estimation: calibration
- 6) Estimation: the Kalman filter and maximum likelihood

October 26<sup>th</sup> 2008, 10:30 – 12:00: Mid-Term Exam

### November 3 – December 18

- Topics for the second part of the course will be distributed later. They include
- calibration and remaining DSGE topics not covered before the mid-term
  - macro models incorporating an explicit financial sector

### Exercise Classes

Exercise class	Date	Time	Place
1	Sept. 24, 2009	16.15 - 17.45	Aula 201
2	Oct. 1, 2009	16.15 - 17.45	Aula 201
3	Oct. 13, 2009	16.15 - 17.45	Aula 201
4	Oct. 20, 2009	16.15 - 17.45	Aula 201
5	TBA	16.15 - 17.45	Aula 201
6	TBA	16.15 - 17.45	Aula 201
7	TBA	16.15 - 17.45	Aula 201

References for the exercise classes:

**Required Paper:** Ireland, Peter "A Method for Taking Models to the Data", Journal of Economic Dynamics and Control, 2004, 28(8), 1205-26. A working paper version can be downloaded from Ireland's website together with the Matlab codes that replicate the paper's results.

**Recommended reading:** The following set of lecture notes gives a very thorough overview of the same paper mentioned above: Malley, Jim "Lecture Notes on the Theory, Calibration & Estimation of Dynamic Stochastic General Equilibrium Models", University of Glasgow, 2004

There will be 7 exercise classes and 6 problem sets: each to be handed in to the T.A. ONLY. In case the solution is contained in a computer file, then it can be handed in via e-mail; no hard copy is necessary.

Group work for the problem sets is not only allowed, but advised. Solutions should still be handed in individually (unless stated otherwise) and the names of the other members of the group should be made explicit in the solution, or cover page.

### Office Hours:

**FG:** by appointment with [patrizia.pellizzari@unibocconi.it](mailto:patrizia.pellizzari@unibocconi.it) or ask me at the end of class.

**LS:** Monday, 2 to 4 pm, Roentgen building 5<sup>th</sup> floor, room D1-03.

**SD:** For an appointment write to [szabolcs.deak@phd.unibocconi.it](mailto:szabolcs.deak@phd.unibocconi.it) or ask me at the end of class.  
Office: Roentgen building 5<sup>th</sup> floor, room D2-04.