FINANCE 924 – INTERTEMPORAL MACROECONOMICS AND FINANCE

MATHIEU TASCHEREAU-DUMOUCHEL
SPRING 2012

Office: 2338 SH-DH   mathieu@wharton.upenn.edu
Office Hours: Monday 5:30-6:30   http://sites.google.com/site/mathtd/
Phone: 215-898-3609   Course Website: webcafe

Course description: This is a doctoral course on Macroeconomic Theory. We will be concerned with the intertemporal decisions of households and firms and on the implications of different macroeconomic models for asset pricing. We will describe and utilize techniques to solve dynamic optimization problems, in particular dynamic programming. We will also discuss some numerical methods to solve these problems. We will then use these techniques to study a broad range of economic models.

Organization: The class meets on Monday mornings from 9am to 12 in the conference room of the Finance department.

The teaching assistant for the course is Yasser Boualam (boualam@wharton.upenn.edu). His office hours are Thursday from 4:30pm to 6:30pm.

Prerequisites: The prerequisites are a graduate level microeconomics course and a strong understanding of algebra and calculus. A basic knowledge of a mathematical software or programming language (such as Matlab or Gauss) is recommended.

Grading: Students are expected to come to class and participate actively. Grades will be based on homework assignments (30%), one midterm exam (30%) and one final exam (40%). The final exam will cover all the material. Actively working on the assignments is essential for your understanding of the course material. You may work in groups, but you must turn in your own answers. All exams are closed book.

Textbook: Advanced treatment of the material we will cover can be found in
  - **LS:** Lars Ljunqvist and Thomas J. Sargent. *Recursive Macroeconomic Theory*, 2nd edition, MIT Press, 2004.
  - **SLP:** Nancy Stokey and Robert Lucas, with Edward Prescott, *Recursive Methods in Economic Dynamics*, Harvard University Press, 1989.

Useful discussions are provided in
  - David Romer, *Advanced Macroeconomics*, 3rd edition, McGraw Hill, 2006.
  - **BF**: Olivier Blanchard and Stanley Fisher, *Lectures on Macroeconomics*, MIT, 1989.

An advanced treatment on numerical methods can be found in

- Kenneth Judd, *Numerical Methods in Economics*, MIT Press, 1998.

Topics

This list is preliminary and subject to changes.

1. General Introduction to Macroeconomics and Stylized Facts
   - Romer, Sections 1.1 and 4.1.
   - BF, Chapter 1.

2. Endowment Economy with Complete Markets
   - LS, Chapter 8.
   - SLP, Chapter 15.

3. Asset Pricing
   - LS, Chapter 13.
   - Rajnish Mehra and Edward Prescott. *The Equity Premium: A Puzzle*. Journal of Monetary Economics (1985): 145-162.

4. Math, Dynamic Programing and Numerical Methods
   - LS, Chapters 2-5.
   - SLP, Chapter 3-5.

5. Production and Investment
   - Romer, Chapter 8

6. Neoclassical Growth model
   - LS, Chapter 11.1-11.3, 11.9. 14.1-14.3, 14.5.

7. Overlapping Generations Models
   - LS, Chapter 9.
   - BF, Chapter 3.

8. Bewley Models
   - LS, Chapter 17.

9. Equilibrium Search and Matching
   - LS, Chapter 26.
   - Richard Rogerson, Robert Shimer and Randall Wright. *Search-Theoretic Models Of The Labor Market: A Survey*, Journal of Economic Literature, 2005, v43, 959-988.
   - Christopher Pissarides, *Equilibrium Unemployment Theory*, MIT Press, 2000

10. Time permitting: Introduction to Models with Financial Frictions