Learning Goals and Assessment

This course is the first part of an integrated two semester sequence in macroeconomics. The sequence aims at introducing you to a broad range of issues in macroeconomics at an advanced level, and at building the necessary tools for doing research.

In this course you will become acquainted with dynamic models that dominate research in the field. We will emphasize methods and basic approaches to modeling growth and business cycle phenomena. Through problem solving and computer projects, you will acquire hands on experience and the ability to start formulating and solving models of your own. We will also, if time allows, discuss some applied issues, including fiscal and monetary policy.

The grade for the course will be determined by a midterm exam (30%), a computer project (25%), and a final exam (45%).

References, Prerequisites, Activities

The following are excellent references:

We will assign parts of the above books and some journal articles. The reading list below is preliminary and may change during the semester, depending on how we make progress. An asterisk (*) indicates strongly recommended material.

We will cover some analytical tools as they are needed. However, and as announced earlier, we assume some working knowledge of calculus, constrained optimization, statistics, and of difference and differential equations. Also, working knowledge of a computer programming language such as GAUSS or MATLAB will be necessary.

To complement class discussions, there will be recitations devoted to solving problems or reviewing complementary material. The recitations will be conducted by the TAs for this course.

### Outline and Reading List

   * R., ch. 1
   * A, chapters 1-4

2. **The Optimal Growth Model. Dynamic Optimization Under Certainty.**
   * R, ch. 2A, 3, 4
   * A, ch. 5-8, 11

3. **Stochastic Models of Business Cycles.**
   * R, ch. 5
   * DD, chs. 1-3.
   * A, chs. 16, 17


4. **Assorted Tools for Numerical Simulation and Estimation**

   * DD, chs. 4, 6-8, 11-12

5. **Nominal Rigidities and Monetary Policy. The New Keynesian Model.**

   * R, ch. 6, 7
   * G, ch. 2-5

6. **Heterogeneity and Incomplete Markets: Bewley Models and Overlapping Generations. Implications for Inequality and Policy.**

   * R, ch. 2B, 12.1-12.4
   * Ljungvist and Sargent, chapters 8, 9, 10, 11
   * A, ch. 9