1 Course Description

This is a masters-level class in macroeconomics. The aim is to familiarize students with some of the central issues in modern macroeconomics. The focus will be on a wide variety of models with one unifying theme: dynamic optimization. We study issues of capital accumulation, economic growth, monetary policy, social security, budget balance, tax cuts, political economy, optimal tax mix, inflation, income distribution, asset pricing etc. After taking this class, you will become familiar with many current macroeconomic issues and understand how research economists think about them.

2 Readings, Course requirements, and Assignments

There is no single prescribed text for this course. Initially, we will make use of portions of *Modeling Monetary Economies* by Bruce Champ and Scott Freeman. From time to time, I will direct your attention to scholarly articles and material from various texts. You do not have to buy any books. Take detailed lecture notes. It is also useful to develop some good habits like regular reading of *The Economist* and the *Journal of Economic Perspectives* (found in the 3rd floor reading room).

There will be three exams. They will have a combined weight of 70%. The remaining 30% will be allocated to (a) problem sets (15%), and (b) projects and class participation (15%). Attendance in class is not compulsory but is strongly recommended. No make-up exams will be given. The exams will be given during class time. They will be of the closed-book, no-notes variety. Non-programmable calculators are allowed during exams.

Each week or so a problem set will be handed out — it will be due in class (at the beginning of class) typically a week from the date of issuance. The problem sets serve two
purposes: a) they help fix concepts taught in class, and b) they cover gaps in lectures. Please pay special attention to writing up your solutions neatly and legibly, showing all the steps. Typed solutions are especially welcome! Late problem sets will receive zero credit and will not be graded. Exams will closely follow the questions in the problem sets. Problem sets will be graded on a $\sqrt{+}, \sqrt{-}$, and 0 scheme. Making a good faith attempt at answering all the questions will immediately assure you of a grade of $\sqrt{\cdot}$. Solutions to problem sets (but not exams) will be made available.

You are encouraged to form study groups and work on the problem sets together. Each student is however required to write up the solutions individually. Do not copy (or allow someone else to copy) directly from someone else’s (your) solutions. I report all violations of academic integrity to the appropriate committee in the university.

I will discuss this in detail at some point in the future but the basic idea is as follows. I will hand out a bunch of topics/ research questions and divide the class into small groups. Each group will then be asked to make a presentation in class. No major original research will be required. Expect to spend about 10-15 hours of work time on this.

Do not hesitate to interrupt me in class and clarify any doubts you may have. Feel free to stop by my office and discuss any academic or in some cases, non-academic issues. The easiest way to get a hold of me is via e-mail. For the most part, paying attention in lectures and doing the problem sets diligently is all the preparation you’ll need.

3 Tentative list of topics

- Math review: linear (single-dimensional) and non-linear difference equations
- The two period model (lifecycle model), savings and consumption, labor supply, temporary and permanent tax cuts, Ricardian equivalence
- basic overlapping generations (OG) model, preliminaries about demographics, notion of markets and competitive equilibrium, Pareto optimality, exchange, inefficiency
- OG model with money, restoring efficiency; inflation as a tax, seigniorage, Laffer curves
- Growth models; importance of saving rate, convergence, overaccumulation of capital; extended to allow for endogenous growth; human capital
- Extensions to study social security, fertility, environment, renewable resources
- Expectations: adaptive expectations, Cagan model of money demand; Rational expectations
- Central bank credibility; time inconsistency
- Income distribution and growth; Political economy: median voter, tax rates