Course Description:

The goal of this course is to introduce some core topics and methods that you need to conduct research in macroeconomics.

We will study two of the widely used workhorse models of modern macroeconomic theory, the neo-classical growth model and the overlapping generations model. In doing so, we will also learn the techniques necessary to solve these models, namely dynamic programming theory and techniques. We will use these models to study problems of growth, business cycles and asset pricing.

Examinations:

There will be two exams, a mid term and a final. Each will count for 45% of your grade. The mid-term will be held in class on October 29 and the final on December 17. There will be no make up exams except in the case of a serious and documented emergency.

Homeworks:

You will also have a theoretical or computational problem set most weeks. These will count for 10% of your grade. You are encouraged to work in groups, but each person must submit their answers individually. Computational problem sets can be done on any software of your choice but you must submit your computer code with the problem set.

Labs:
A lab for this class will be held every Monday 11.45 a.m. to 1.45 p.m. The lab will be conducted by Chris Naubert. The lab is an integral part of this class and you should plan on attending it every week. Answers to problem sets and computational techniques will be discussed in labs. In addition, some topics mentioned in class will be covered in greater detail.

**Course Materials:**

I will not follow any single text book. However my lectures will be based on many of the books listed below.

*Textbooks:*

Other books you may find useful:


**Syllabus (tentative)**

1. Inter-temporal General Equilibrium Models
2. Introduction to Uncertainty and Asset Pricing.
3. Neo-classical Growth Theory
4. Dynamic Programming (Deterministic and Stochastic)
5. Real Business Cycle Models
6. Overlapping Generations Models