Macroeconomic Theory I     Professor Sangeeta Pratap  
Fall 2022     sangeeta.pratap@hunter.cuny.edu

Room: 5382

Learning Goals:

• Understand two basic models widely used in macroeconomics  
  o The neo classical growth model  
  o The overlapping generations model  
• Understand mathematical and numerical methods to analyze and solve these models  
• Learn applications of these models  
  o Long Run Growth  
  o Business Cycle Fluctuations  
  o Open Economy Macroeconomics

Assessment

1. (Approximately) Weekly Homework (20 percent of your grade)  
2. In class examinations (80 percent of your grade)  
   a. Mid-term:    October 24  
   b. Final:      December 19

Labs:

The teaching assistant for this class is Chris Naubert, who can be reached at  
 cnaubert@gradcenter.cuny.edu. Chris will hold an in person weekly lab for this class every Tuesday from 2.00-4.00 pm in Room 6418. He will discuss mathematical preliminaries necessary for the class, programming in Matlab and answers to problem sets. In addition, some topics briefly sketched out in class will be covered in greater detail.

COVID 19 protocols:

Please make sure you comply with all the Graduate Center’s vaccination and testing protocols to enter the building.

Further information can be found at

Special Classes:

Please note the timings of the two classes that will not be held on Mondays.

Thursday Sept 29    2.00-3.30 pm and 4.00 to 5.30 pm  
Friday October 10    10.30 am to 1.30 pm
Course Materials:

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


Other books you may find useful:

Syllabus (tentative)

1. Introduction to the neo-classical growth model
   a. The Social Planner’s problem and Optimal Growth
   b. Solution techniques
      i. Dynamic Programming. Value Function Iteration
      ii. Euler equation and transversality condition methods
   c. Competitive Equilibrium
2. Balanced Growth
   a. Long run growth “facts”
   b. Growth Accounting
   c. The balanced growth model
3. Uncertainty in the growth model
   a. Markov chains and Solution Methods
   b. Competitive Equilibrium
4. Business Cycles
   a. Business Cycle Facts
   b. The real business cycle model and basic extensions.
   c. Calibration and evaluation of real business cycle models
   d. International Business Cycles
      i. The open economy real business cycle model
5. Overlapping Generations Models
   a. Endowment economies
      i. No trade equilibria
      ii. Introduction of money. Multiple steady states and indeterminacy
      iii. Welfare properties
      iv. Monetary and fiscal policy
   b. Economies with Capital
      i. Competitive equilibria. Steady states and equilibrium dynamics
      iii. Money, monetary and fiscal policy.