HE4002 Advanced Macroeconomics Syllabus

Instructor: Yang Tang

Office Hours: Tuesday 1pm–3pm, or Thursday 1pm–3pm, or by appointment
Email Address: tangyang@ntu.edu.sg or yangtang.sg@gmail.com
Office: HSS builing 04-56
Tel: 6790-6115

1 Course Descriptions

This is an advanced course in Macroeconomics. The primary interest in Macroeconomics is the entire economy. The course will cover a series of frontier research related to economic growth and development, asset pricing and monetary policy, international finance and trade, and other contemporary issues on income and firm distribution. In this course we study the aggregate economy by developing theoretical models with solid microfoundations, and this implies that i) we use models populated by agents (households, firms, and government) that optimize their own behavior, and ii) the implied equilibrium allocations that result from the behavior of agents satisfy aggregate consistency conditions (essentially market clearing). Understanding the concept of equilibrium will then be the single most important theoretical tool of the course.

The prerequisites are HE 202 or HE2002. This course demands degree of mathematical maturity associated with the concepts of sets, functions, derivatives, integrals, Taylor series, optimization, ordinary differential equations, and other material covered in basic mathematical economics.
2 Grading and Requirement

Learning is far more important than testing. The purpose of exams is to give you a chance to review the course materials and train your skills to solve real economic problems. Your overall performance will be evaluated based upon two equally weighted quizzes and one final exam:

Quiz 1, TBA, 25%
Quiz 2, TBA, 25%
Final Exam, TBA, 50%

There will be no make-up quizzes. The final letter grade distribution will be calculated just as in standard Economics Department courses.

3 Texts and Requirement

There will be no required text. However, the following textbooks may be useful for certain parts of the courses. The course may be demanding in the sense that I expect you to spend some time after class reading the relevant literature that I assign to you. To understand lecture notes and the assigned readings is critical for succeeding in the courses.

- Blanchard, O. and S. Fischer (1990), Lectures in Macroeconomics, MIT Press.
4 Course Style

We meet three hours every week. In general, I will give a two-hour lecture, and spend the remaining 1 hour or so go over the tutorials that I assigned to you one week earlier. The course may also occasionally be mixed with student presentations, or in-class quiz.

5 Course Outline

(1) Economic Growth Theory:
- Neoclassical Growth Theory
- Elementary Endogenous Growth Theory:
  (i) The AK Model
  (ii) Technology and Economic Growth
  (iii) Human capital and Economic Growth

(2) Economic Development Theory
- The Big push theory
- Poverty trap
- Industrial transformation
- Demographic transition

(3) Money, Finance and Long-run growth
- Basic "Lucas” asset pricing model
- OLG model with Money
- Financial intermediation and endogenous growth

(4) International development and globalization
- Exchange rate determination and FDI
- Traditional ”Grossman-Helpman North-South” international trade model
- Frontier ”Melitz-Eaton-Korum” international trade model

(5) Contemporary issues in income and firm distribution
- Income distribution
- Growth, cycles and firm distribution
- Political institutions and distributive policies
6 Timetable

- Week 1: Economic growth theory: Exogenous growth
- Week 2: Economic growth theory: Endogenous growth
- Week 3: Economic development theory: The big push theory and poverty trap
- Week 4: Economic development theory: Industrial transformation
- Week 5: Economic development theory: Demographic transition
- Week 6: Quiz
- Week 7: Basic Asset Pricing
- Week 8: Fall break
- Week 9: OLG model with Money
- Week 10: Financial intermediation and endogenous growth
- Week 11: Exchange rate determination and FDI
- Week 11: Quiz (Time: TBA)
- Week 12: International trade
- Week 13: Issues in income distribution
- Week 14: Issues in firm distribution

7 Readings

As the course goes on, I will assign a list references which can act as a great help for your understanding of lecture notes. Most of the readings are research papers published at some top economic journals, or some unpublished but promising working papers. Therefore, the reading list now is temporarily TBA.