Economics 401: Advanced Macroeconomics (Macroeconomic dynamics)
Stephen J. Turnovsky
Fall 2024

Meeting times: Monday, Wednesday 1.30 – 3.00 pm
Office hours: To be determined

This course is intended to provide the tools and methods to discuss topics in the dynamics of the aggregate economy. The typical macroeconomy is subject to both short-run and long-run dynamic influences. The former are associated with fluctuations in economic activity, the latter with long-run economic growth. We will develop both short-run and long-run theories of macroeconomic activity and pay particular attention to the role of government policy.

The course is technical in nature and uses mathematics liberally. People are expected to be comfortable with using mathematical techniques. It is intended for people that want to go on to do graduate study in economics.

The text book for the course is:

Ben J. Heijdra, **Foundations of Modern Macroeconomics**, 3rd edition
Oxford University Press, 2016.

I expect that we will cover the material in Chapters 1,2, 3, 4, 5, 6, and 12-14.

Some of the background mathematics we shall use is in the Appendix to that book. Further mathematical background is available in

D. Leonard and N.V. Long, **Optimal Control Theory and Static Optimization in Economics**, Cambridge University Press, 1992.

I propose to give a brief introduction to the necessary mathematics as we develop the model and therefore as we need it.

The topics to be covered include:

1. The Basic Static Macro Model
   Heijdra, Chapter 1.

2. Basic Open Economy
   Heijdra, Chapter 2.

3. A Basic Dynamic Macro Model
   Heijdra, Chapter 3.

4. Rational Expectations and Economic Policy
   Heijdra, Chapter 4.

5. Anticipation Effects and Macro Policy
   Heijdra, Chapter 5

6. The Government Budget Constraint
   Heijdra, Chapter 6

7. Economic Growth
   Heijdra, Chapters 12-14

There will be a mid-term and final exam. There will also be homework problems during the quarter. The final grade will be:

Final exam 50%
Midterm exam 30%
Homework problems 20%