Aims

This course offers an introduction to the theories and models of economic growth. It will use these models to shed light both on the process of economic growth at the world level and on sources of income and growth differences across countries. Topics covered include income distribution and economic growth, where Piketty's recent work will be mentioned, population and economic growth where Malthus' work will be discussed, as well as of course, the standard economic growth model of Solow. Macroeconomic questions addressed include: Why are some countries rich and some poor? What factors are leading to such differences? What differences among countries can explain economic success and failures? This course is aimed at 2nd year Economics students on the Mathematical Pathway and so homework questions will typically involve solving problem sets.

Learning Outcomes

Upon completion of the course students should be able to:

- Understand the main insights into the economic growth process that economists have gleaned over the past half-century.
- Solve and manipulate a variety of simple models in economic growth.
- Identify applications and limitations of the models learned.

Reading

The course follows the main textbook quite closely as the reading list shows. The Main textbook is:

David N. Weil Economic Growth, Pearson Addison Wesley

There are three editions of this textbook with 2 copies of each edition available in the library. Additional readings will be given during the lectures/seminars.

Assessment
75% Final Exam;
25% Mid-term exam during the lecture of the week after Reading Week

(Tentative) Timetable

Note that the following timetable is indicative and that not all topics may be covered

Week 1: The Facts of Economic Growth

At the end of this week you should understand the main facts about the differences in the level of income across countries and its rate of growth across time and be able to answer mathematical questions on these topics.

Readings

Weil, Chapters 1 and 2
The Gapminder Data set and Graphing Website http://www.gapminder.org/
Oded Galor, Unified Growth Theory, Princeton University Press 2011

Week 2: A Framework for Analysis

At the end of this unit you should understand the Solow model of factor accumulation and should be able to do basic manipulations of this model such as analysing the impact of changes in the saving’s rate on the steady state.

Readings

Weil, chapter 3.

Week 3: Human Capital

At the end of this week you should understand the extension of the Solow model to include human capital accumulation

Readings

Weil, chapter 6.

Week 4: Population and Economic Growth
At the end of this week you should understand a simple Malthusian model of population growth and the implications of population growth in the Solow model and be able to answer questions based on these models.

**Readings**

Weil, Chapters 4 and 5  
Oded Galor, Unified Growth Theory, Princeton University Press 2011

**Week 5: Technological Progress**

At the end of this week you should have some understanding of the role of productivity and technological change in economic growth and be able to answer mathematical questions on this topic.

**Readings**

Weil, Chapters 7 and 8

**READING WEEK**

**Week 6: MID-TERM TEST**

**Week 7: Geography and Natural Resources and Economic Growth**

At the end of this week you should have some understanding of the role of geography and natural resources in economic growth and be able to answer mathematical questions on this topic.

**Readings**

Weil, Chapters 15 and 16

**Week 8: How Government Effects Growth**

At the end of this week you should have some understanding of the role of government in economic growth and be able to answer mathematical questions on this topic.

**Readings**

Weil, Chapter 12 and 14
Week 9: Income Inequality and Growth

At the end of this week you should have some understanding of the role of income inequality in economic growth and be able to answer mathematical questions on this topic.

Readings

Weil, Chapter 13


Week 10: Revision