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 of course, the standard economic growth model of Solow. Macroeconomic questions addressed include: Why are some countries rich and some poor? What differences among countries can explain economic success and failures? This course is aimed at 2nd year Economics students on the Mathematical Pathway and 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.

Course Delivery
The course is a one semester course which will be given in the autumn semester. There will be one two-hour lecture per week and one seminar per week. The lectures will be used primarily for expounding the economic theory and the seminars for going through problem sets although there may be some reversal of this demarcation of lectures and seminars in some weeks. You are advised that solving the homework problems will be of enormous help in preparing for examinations, although they will not be part of the formal method of evaluation. You should prepare answers to the problems before the weekly seminars and expect to present them to the rest of the group. As with all courses in the department, failure to attend seminars can lead to students being issued with a formal warning, which could lead to the termination of registration (please see the college regulations for more information).

Note that lecture notes and homework answer sheets are NOT given out or placed on Moodle in this course. This has been a successful policy in previous years and will not be changing this year. Please note that while seminar attendance is compulsory and is monitored by the department, attendance at lectures is also an essential part of the course.
Assessment
This course is assessed 25% by a mid-term examination during the lecture (usually in the week after Reading Week) and 75% by an unseen examination in the summer term. Please refer to the student handbook for the scheduling of the mid-term and summer exam.

Communication and Office Hours
I will endeavour to answer emails within three working days during term time. Most questions will be answered by going over the material at the start of the next lecture or seminar so that all students can benefit. However if you do want to go through something directly with me then you can email to arrange a slot during my office hours. Please note that I do not answer homework questions directly by email.

Textbook
Economic Growth, David N. Weil, Pearson Addison Wesley
There are three editions of this textbook with 2 copies of each edition available in the library. Additional readings will be advised during the lectures/seminars.

Timetable (Tentative)
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
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

Week 6 READING WEEK

Week 7: MID-TERM TEST

Week 8: 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 9: 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 10: 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

Homework Revision

Week 11 Revision