Dynamic Modelling for Economists

Module Code: ECO00012I  Credits: 10  Year: 2  Terms: 1
Contact Hours: 8 Lectures, 4 Seminars (12 contact hours)
Module Organiser: Dr M Bambi

Overview:
The purpose of this module is to illustrate the techniques available for modelling economic processes which evolve through time, and for solving dynamic economic problems.

Aims:
- To familiarise you with ordinary differential equations (=ODE)
- To introduce simple solution methods to solve certain types of ODE
- To introduce a geometrical approach to study ODEs
- To apply these techniques to solve problems in various areas of economics

Objectives:
On completing the module a student will be able to:
- Specify economic processes that evolve through time, using differential equations
- Understand dynamic features of solutions by means of equations and diagrams
- Find the implications of some dynamic economic models among them the asset’s price adjustment mechanism, and the Haavelmo growth model

Assessment:
The course will be assessed by means of a 2-hour unseen examination, to be held in the Spring Term in which the University-approved calculator will be allowed.

The course is taught by means of lectures and tutorial assignments for you to do, the solutions to which will be graded and discussed in classes.

Pre-requisites:
None

Main References:
Detailed printed handouts will accompany the lectures. The book which covers the material of this course most closely is: