Theory of Finance

Module Code: ECO00040M  Credits: 20  Term: 1-2
Contact Hours: 20 Lectures, 6 Seminars (26 contact hours); primarily in term 1.
Module Organiser: Professor P. Spencer

Overview:

This module presents the fundamental concepts of modern finance theory. This will form the foundation for other modules in finance and is primarily designed for finance students. This material is reinforced by the specialist (Group A) finance options available in the spring term. Although this module is open to economics students, our experience is that they find this difficult without the support of the specialist modules and only the best economics students do well. Much of modern finance is technically demanding as it makes considerable use of mathematics. This is particularly true of derivatives and option pricing, an area central to modern finance that employs stochastic calculus instead of ordinary calculus.

Aims:

- To provide a set of mathematical models and tools that can be used by those contemplating a career in finance or those considering doing further research in the subject.
- To develop an intuitive understanding of key concepts of finance.
- To present an overview of the topics that are the subject of modern finance.
- To provide sufficient training in the methods of modern finance so that students can formulate and solve a diverse set of problems that arise in the study of finance.
- To provide an opportunity for students to study, discuss and evaluate some research frontier dimensions of modern finance.

Objectives:

On completing the module a student will be able to:

- identify the major issues in the study of modern finance.
- apply the methods taught in the module to solve specific problems in finance.
- formulate a research proposal in finance.

Assessment:

Exercises will be available during the module. These do not count in the final module assessment. They are designed to help understanding of the material covered in the module by providing examples and further illustrations of the module content.
There will be a three-hour unseen examination scheduled for the Summer Term.

**Pre-requisites:**

None.

**Main References:**

The reading will consist mainly of lecture notes prepared by Professor Peter Spencer. Other readings will be drawn from the texts listed below. A number of articles will also be recommended in the lectures.

**Basic Theory:**


**Derivatives and Options:**


**Other books that may be useful:**


