1. **Title of the module**

ECON5630 (EC563) Financial Economics and Asset Pricing

1. **Division which will be responsible for management of the module**

Division of Human and Social Sciences

1. **The level of the module (Level 4, Level 5, Level 6 or Level 7)**

Level 6

1. **The number of credits and the ECTS value which the module represents**

15 credits (7.5 ECTS)

1. **Which term(s) the module is to be taught in (or other teaching pattern)**

Autumn or Spring

1. **Prerequisite and co-requisite modules**

Prerequisites:

ECON5000 Microeconomics

ECON5020 Macroeconomics

1. **The courses of study to which the module contributes**

This is a compulsory modules for the BSc Financial Economics (with econometrics)

It is an elective module for all other Single and Joint Honours Degree courses in Economics.

The module is **NOT** available to students across other degree courses in the University

1. **The intended subject specific learning outcomes.
On successfully completing the module students will be able to:**

8.1. Understand the basic concepts and issues in financial economics

8.2. Demonstrate critical understanding of decision making relevant to investment optimisation

8.3. Demonstrate knowledge and understanding of the principles of risk neutral asset pricing

* 1. Understood the principles underlying numerical computation of asset prices
	2. Demonstrate analytical and numerical skills through analyses of asset pricing relevant to the working of financial markets
	3. Solve analytical, numerical and computational asset pricing problems
1. **The intended generic learning outcomes.
On successfully completing the module students will be able to:**

9.1. Reflect critically on the application of economic models to real-world problems

9.2. Address financial and economic problems using deductive and inductive reasoning

9.3. Retrieve, review and utilise information, particularly quantitative data, from a variety of sources

9.4. Communicate coherent economic and financial arguments verbally and in writing

9.5. Plan work and study independently

1. **A synopsis of the curriculum**

The module develops skills in asset pricing and an understanding of the theoretical basis of the theory behind it. The module requires knowledge of some mathematical techniques but stresses practical training in asset pricing with a focus on the intuitions and heuristics behind theorems and formulae, rather than their rigorous derivations and semantic definitions

There are three key topics; (i) investors' optimisation, (ii) discrete time models and (iii) option Greeks and option strategies. For (i), the module first introduces the basic financial economics, and, based on it, we establish the basis of the risk-neutral probability. For (ii), the module discusses how to construct the tree model based on the historical price data, and shows that the model can be used to find the fair prices of a wide range of financial derivatives. For (iii), the module investigates the Black-Scholes-Merton (BSM) formula, and then how to use it to find the optimal hedge ratio for delta hedging. In this respect, the module also discusses how to use the return correlations to find the optimal hedge ratio.

1. **Reading list (Indicative list, current at time of publication. Reading lists will be published annually)**
* Campbell, J.Y, Lo, A.W. and A.C. MacKinlay (1997), The Econometrics of Financial Markets, Princeton University Press.
* Cochrane, J.H. (2001), Asset Pricing, Princeton University Press
* Dixit, A.K. and R.S. Pindyck (1994), Investment Under Uncertainty, Princeton University Press.
* Huang, C. and R.H. Litzenberger (1988), Foundations for Financial Economics, Prentice Hall.
* J. Hull, *Introduction to Futures and Options Markets*, 6th edition, Pearson, 2006
* Pliska, S.R. (1997), Introduction to Mathematical Finance – Discrete time Models, Blackwell Publishers.
1. **Learning and teaching methods**

Total contact hours: 19 hours

Private study hours: 131

Total study hours: 150

1. **Assessment methods**
	1. Main assessment methods

In Course Test 1, (45 minutes) (10%)

In Course Test 2, (45 minutes) (10%)

Examination, 2 hours (80%)

13.2 Reassessment methods

Reassessment Instrument: 100% exam

1. ***Map of module learning outcomes (sections 8 & 9) to learning and teaching methods (section12) and methods of assessment (section 13)***

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Module learning outcome** | *8.1* | *8.2* | *8.3* | *8.4* | *8.5* | *8.6* | *9.1* | *9.2* | *9.3* | *9.4* | *9.5* |
| **Learning/ teaching method** |  |  |  |  |  |  |  |  |  |  |  |
| *Lecture* | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |  |  |
| *Terminal Class* |  |  |  | **x** | **x** | **x** |  |  | **x** |  |  |
| *Seminar* | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| *Private Study* | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| **Assessment method** |  |  |  |  |  |  |  |  |  |  |  |
| *In Course Test 1* | **x** | **x** | **x** |  |  | **x** | **x** | **x** |  | **x** | **x** |
| *In Course Test 2* |  |  | **x** | **x** | **x** | **x** | **x** |  | **x** | **x** | **x** |
| *Examination* | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |

1. **Inclusive module design**

The School recognises and has embedded the expectations of current equality legislation, by ensuring that the module is as accessible as possible by design. Additional alternative arrangements for students with Inclusive Learning Plans (ILPs)/declared disabilities will be made on an individual basis, in consultation with the relevant policies and support services.

The inclusive practices in the guidance (see Annex B Appendix A) have been considered in order to support all students in the following areas:

a) Accessible resources and curriculum

b) Learning, teaching and assessment methods

1. **Campus(es) or centre(s) where module will be delivered**

Canterbury

1. **Internationalisation**

The module studies examples of financial issues from a range of countries across the world at varying stages of development, with a focus on examples and data from the United Kingdom and the United States. The module develops skills and techniques that are globally transferrable.

**DIVISIONAL USE ONLY**

**Revision record – all revisions must be recorded in the grid and full details of the change retained in the appropriate committee records.**

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| --- | --- | --- | --- | --- |
| Date approved | Major/minor revision | Start date of the delivery of revised version | Section revised | Impacts CLOs (Q6&7 cover sheet) |
| 07/02/19 | Minor | September 2019 | 1 | No |
| 21.07.21 | Minor | September 2021 | 14 | No |

Revised FSO Jan 2018