1. **Title of the module**

MAST6034 (MA6534) - Derivative Markets

1. **School or partner institution which will be responsible for management of the module**

School of Mathematics, Statistics and Actuarial Science

1. **The level of the module (e.g. 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

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

Pre-requisite: MAST4003 Introduction to Finance

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

BSc Financial Mathematics (including programme with a Year in Industry)

1. **The intended subject specific learning outcomes.**

**On successfully completing the module students will be able to:**

* 1. demonstrate systematic understanding of key aspects of the derivative markets;
	2. demonstrate the capability to deploy established approaches accurately to analyse and solve problems using a reasonable level of skill in calculation and manipulation of the material in the following areas: Futures markets, interest rate topics, interest rate derivatives and swap, trading strategies of future, forwards and options;
	3. apply key aspects of the derivative markets in well-defined contexts, showing judgement in the selection and application of tools and techniques.
1. **The intended generic learning outcomes.**

**On successfully completing the module students will be able to:**

1. manage their own learning and make use of appropriate resources;
2. understand logical arguments, identifying the assumptions made and the conclusions drawn;
3. communicate straightforward arguments and conclusions reasonably accurately and clearly;
4. manage their time and use their organisational skills to plan and implement efficient and effective modes of working;
5. solve problems relating to qualitative and quantitative information;
6. make competent use of information technology skills such as online resources (moodle), internet communication;
7. communicate technical material competently;
8. demonstrate an increased level of skill in numeracy and computation;
9. demonstrate the acquisition of the study skills needed for continuing professional development.
10. **A synopsis of the curriculum**

The module aims to introduce students to the workings of Financial Markets part of which are markets where financial derivatives are traded. Indicative content includes:

Introduction to Financial Markets; Term structure of interest rates, Fixed income securities, Bond markets and Bond valuation; Stock markets, Common stock, Valuation of Common Stock; Derivatives, Derivative markets, Option contracts, Option valuation; Hedging, Hedging and trading strategies with derivative contracts.

1. **Reading List (Indicative list, current at time of publication. Reading lists will be published annually)**

Investments, (Global Edition or 10th and 9th Edition) by Bodie, Kane and Marcus. The publisher is McGraw-Hill Education.

Fundamentals of Futures and Options markets by John C. Hull, (9th Edition) Pearson, 2017

1. **Learning and Teaching methods**

Total contact hours: 38

Private study hours: 112

Total study hours: 150

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

Assessment 1 Exercises, requiring on average between 10 and 15 hours to complete 20%

Assessment 2 Exercises, requiring on average between 10 and 15 hours to complete 20%

Examination 2 hours 60%

The coursework mark alone will not be sufficient to demonstrate the student’s level of achievement on the module.

13.2 Reassessment methods

Like-for-like

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 | 9.1 | 9.2 | 9.3 | 9.4 | 9.5 | 9.6 | 9.7 | 9.8 | 9.9 |
| **Learning/ teaching method** |  |  |  |  |  |  |  |  |  |  |  |  |
| Private Study | **x** | **x** | **x** | **x** | **x** | **x** | **X** | **x** | **x** | **x** | **x** | **x** |
| Lectures/Exercise classes | **x** | **x** | **x** |  | **x** | **x** |  | **x** |  | **x** | **x** |  |
| Revision classes | **x** | **x** | **x** |  | **x** | **x** |  | **x** |  | **x** | **x** |  |
| **Assessment method** |  |  |  |  |  |  |  |  |  |  |  |  |
| Examination | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |  | **x** | **x** | **x** |
| Coursework | **x** | **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
2. **Internationalisation**

This module covers key principles, theories and concepts of economics/finance that are used in a global environment. Mastery of the subject-specific learning outcomes, 8.1 to 8.3, will equip students to apply these principles, theories and concepts in a wide range of international contexts. The module team is drawn from the School of Mathematics, Statistics and Actuarial Science, which includes many members of staff with international experience of teaching, research collaboration and of working within the financial sector.

In compiling the reading list, consideration has been given to the range of texts that are available internationally and a selection of texts has been identified to complement the delivery of the material.

Examples covering various international economic/financial frameworks are included in the module where appropriate.

The support SMSAS provides to its students is also internationally attuned given our international student body.

**FACULTIES SUPPORT OFFICE USE ONLY**

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date approved | Major/minor revision | Start date of the delivery of revised version | Section revised | Impacts PLOs( Q6&7 cover sheet) |
| July 2023 | Minor | September 2023 | 13 | No |
|  |  |  |  |  |