1. **Title of the module**

MACT9220 (MA922) - Actuarial Risk Management 2

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 (Level 4, Level 5, Level 6 or Level 7)**

Level 7

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

30 credits (15 ECTS)

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

Autumn and Spring

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

Co-requisite with MACT9210 Actuarial Risk Management 1

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

MSc in Applied Actuarial Science also with an Industrial Placement and International Masters

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

8.1 Demonstrate the ability to apply a wide range of key actuarial concepts in simple traditional and non-traditional situations.

8.2 Demonstrate knowledge and understanding of complex techniques applicable to solve problems using core actuarial concepts in the context of current professional actuarial practice.

8.3 Demonstrate a high level of understanding of the main body of knowledge for the module

8.4 Demonstrate skill in calculation and manipulation of the material written within the module.

8.5 Apply a range of concepts and principles of core actuarial concepts in various contexts.

8.6 Demonstrate skill in solving problems using core actuarial concepts by various appropriate methods.

8.7 Demonstrate understanding of the current practical applications of the module material

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

9.1 Demonstrate ability for logical argument when considering complex issues including those involving current issues in actuarial science

9.2 Demonstrate ability to work with relatively little guidance requiring the exercise of initiative and personal responsibility.

9.3 Demonstrate high-level problem-solving skills, relating to qualitative and quantitative information, demonstrating self-direction and originality of thought.

9.4 Demonstrate communications skills, with the ability to communicate clearly to both specialist and non-specialist audiences.

9.5 Demonstrate judgemental skills including in cases where there is an absence of complete data.

9.6 Demonstrate the numeracy and computational skills applicable to solve complex problems in the syllabus areas.

9.7 Demonstrate time-management and organisational skills, as evidenced by the ability to plan and implement efficient and effect modes of working, and to act autonomously.

9.8 Demonstrate the independent learning ability needed for continuing professional development.

9.9 Demonstrate decision-making skills in complex situations.

9.10 Demonstrate the ability to produce written documents; undertake online research; communicate using e-mail.

1. **A synopsis of the curriculum**

The aim of this module is to develop the student's ability to apply a wide range of key actuarial concepts in simple traditional and non-traditional situations. Outline syllabus includes: how to do a professional job; contract design; modelling; data; setting assumptions; expenses; pricing and financing strategies; valuing liabilities; accounting and disclosure; surplus and surplus management; sources of risks; risks in benefit schemes; pricing and insurance risks; the risk management process; risk management tools; capital management and monitoring experience.

This module will cover a number of syllabus items set out in Subject CP1 published by the Institute and Faculty of Actuaries. This is a dynamic syllabus, changing regularly to reflect current practice.

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

Study notes published by the Actuarial Education Company for subject CP1.

1. **Learning and teaching methods**

Total contact hours: 72

Private study hours: 228

Total study hours: 300

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

Assessment 1: Coursework exercises, requiring 10-15 hours to complete 5%

Assessment 2: Coursework exercises, requiring 10-15 hours to complete 5%

Assessment 3: Case Study, requiring 20-30 hours to complete 10%

Examination: 3 hours unseen written paper 80%

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* | *8.4* | *8.5* | *8.6* | *8.7* | *9.1* | *9.2* | *9.3* | *9.4* | *9.5* | *9.6* | *9.7* | *9.8* | *9.9* | *9.10* |
| **Learning/ teaching method** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Private Study | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |  |  | **x** | **x** | **x** | **x** | **x** |
| Lectures | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |  | **x** | **x** | **x** | **x** |  | **x** | **x** | **x** |
| **Assessment method** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Assessment 1 | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| Assessment 2 | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| Assessment 3 | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** | **x** |
| Examination | **x** | **x** | **x** | **x** | **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

1. **Internationalisation**

This module considers risk management in economies around the world.

Much of the content covers *principles* of management, so is not directly linked to any particular country. However, examples and case studies of specific situations are taken from developed and developing economies around the world.

Actuarial Science is an international subject with techniques developed and refined by actuaries, mathematicians and statisticians across the globe. Mastery of the subject-specific learning outcomes (section 8) will equip students to apply the techniques of this module in a wide range of international contexts. The module helps to prepare students for employment in financial services anywhere around the world.

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 and research.

**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.**

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| --- | --- | --- | --- | --- |
| Date approved | Major/minor revision | Start date of delivery of revised version | Section revised | Impacts PLOs (Q6&7 cover sheet) |
| 23/01/2019 | Major | September 2019 | 6, 11, 13, 14 |  |
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