PROGRAMME SPECIFICATION

KEY FACTS

<table>
<thead>
<tr>
<th>Programme name</th>
<th>Actuarial Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award</td>
<td>MSc</td>
</tr>
<tr>
<td>School</td>
<td>Cass Business School</td>
</tr>
<tr>
<td>Department or equivalent</td>
<td>MSc Programme (Cass Business School)</td>
</tr>
<tr>
<td>Programme code</td>
<td>PSACMA</td>
</tr>
<tr>
<td>Type of study</td>
<td>Full Time, Part Time</td>
</tr>
<tr>
<td>Total UK credits</td>
<td>185</td>
</tr>
<tr>
<td>Total ECTS</td>
<td>92.5</td>
</tr>
</tbody>
</table>

PROGRAMME SUMMARY

The degree is accredited by the Actuarial Profession and its structure mirrors that of the professional body qualifications.

The programme provides masters level education and also enables you to reach the highest possible level of professional qualification.

The levels of professional qualification mirrored in the degree are these:

**Level One**
Core Technical Modules SMM062, SMM064, SMM065, SMM066 and SMM068 – these are all required for professional qualification; you will have taken all or some of them elsewhere but can complete them via this programme.

**Level Two**
Core Application Modules SMM042 and SMM043 – these are both required for professional qualification and are compulsory on this programme.

**Level Three**
Specialist Technical Modules SMM030, SMM031, SMM033, SMM034, SMM035, SMM036 and SMM037 – any two of which are required for professional qualification (the modules above are listed under ‘Route Core Modules’ in this programme specification) plus additional electives modules offering the opportunity to explore new subjects but not required for professional qualification (the electives are listed under ‘Elective Modules’ in this programme specification).

The degree is flexibly designed to satisfy different professional development needs, for example: (i) students joining the programme having completed all Core Technical subjects elsewhere and wishing to complete Levels Two and Three of the professional qualification, (ii) students with one or two Core Technical subjects
still to complete.

CREDIT STRUCTURE

Postgraduate Diploma
- 2 compulsory core modules from the 'Core Application' group worth 20 credits each
- Actuarial Risk Management (CA1) Part 1 (SMM042)
- Actuarial Risk Management (CA1) Part 2 (SMM043)
  Plus:
- one further compulsory core module in “Strategic Management and Marketing” (SMM041) worth 15 credits (making a total of 55 credits).

plus

Sufficient modules from the groups listed below to gain 70 credits, but with the restrictions that students must complete at least two modules from SMM030, SMM031, SMM033, SMM034, SMM035, SMM036 and SMM037.

The groups are:
- Core Technical / application Modules SMM062, SMM040 (worth 20 credits), SMM064, SMM065, SMM066, SMM068 (each of which is worth 30 credits);
- Specialist Technical Modules SMM031, SMM033, SMM034, SMM030, SMM035, SMM036 and SMM037 (each of which is worth 25 credits)
- Electives

NB Students are allowed to take additional modules from the Core Technical and Specialist Technical groups in order to gain additional professional exemptions. However only 70 credits will count towards the award of the Postgraduate Diploma. In this case, the two highest scoring Specialist Technical modules plus the highest scoring other module will contribute to the 70 credits required. (TOTAL 125 credits).

Masters level:

Students can choose to complete the MSc component via:
- a compulsory research methods module (worth 10 credits) and
- either a business research project (worth 40 credits) and 1 elective module (worth 10 credits) or 5 elective modules (each of which is worth 10 credits).

(SUB-TOTAL 60 credits - OVERALL TOTAL - 185 credits)

The new default Postgraduate Diploma is allowed if the student passes the three compulsory core modules and achieves a total of 125 credits.
A default Graduate Diploma will be awarded if the student achieves a total of 125 credits including the three compulsory core modules with marks of between 40-49%.

No compensation is allowed.

Aims

1. To give students the opportunity to study actuarial science, insurance, finance and investment both at a general level and in relation to specific areas of practice. This includes the opportunity of studying material directly relevant to the Core Technical, Core Application and Specialist Technical subjects of the examinations of the Institute and Faculty of Actuaries.
2. To provide suitable preparation for students wishing to proceed with postgraduate study or enter employment in financial services, both in traditional and wider fields.
3. To enable students to develop their own interests in the field of actuarial science either through the completion of a research-based project in a specialised subject of their own choice, or by completion of the required third term elective modules covering both current research topics in Actuarial Science and relevant issues from wider fields including, insurance, finance and management.

Aim 3 pertains only to the MSc in Actuarial Management, whereas aims 1 and 2 apply to the Graduate Diploma, Postgraduate Diploma and the MSc in Actuarial Management.

Throughout the course, where possible, lecturers will emphasise the many ethical issues that arise in the context of actuarial practice. In so doing you will be encouraged to share your views with your lecturers and with your class mates, where a diversity of opinion is to be expected and encouraged.

WHAT WILL I BE EXPECTED TO ACHIEVE?

On successful completion of this programme, you will be expected to be able to:

Knowledge and understanding:
- Demonstrate knowledge and understanding of the main areas of actuarial practice.
- Demonstrate knowledge and understanding of the general commercial environment.
- Demonstrate knowledge and understanding of the use of the actuarial control cycle.
- Demonstrate knowledge and understanding of how to monitor measure and manage risk effectively.
- Students completing the Postgraduate Diploma and MSc in Actuarial
Management will also demonstrate depth and breadth of understanding and the ability to apply this understanding in these areas of knowledge.

Skills:
- Use mathematics to solve quantitative problems
- Apply actuarial, statistical and related methods to assess and manage risk.
- Present reasoned arguments in clear concise English.
- Apply the principles of the actuarial control cycle to the main areas of actuarial work (applies only to the Postgraduate Diploma and the MSc in Actuarial Management)
- Communicate effectively with non-specialists in the area.
- Read and understand specialist literature. (Applies only to MSc in Actuarial Management)
- Develop and present reasoned arguments, both in technical and non-technical language. (Applies only to MSc in Actuarial Management)

Values and attitudes:
- Display the professional integrity, conduct and responsibility required by the actuarial profession.

This programme has been developed in accordance with the QAA Subject Benchmark for Mathematics, Statistics and Operation Research.

HOW WILL I LEARN?

1. An intensive schedule of Lectures
2. Dedicated online material
3. Case Studies, real life exercises and contributions from outside speakers
4. Class discussion, tests and other interactive teaching methods
5. Computer laboratory-based work using latest software
6. Private study of professional and academic literature
7. Training in research management skills
8. Meeting with a supervisor

A range of teaching and learning strategies are used to meet different learning outcomes and to cater for the varied backgrounds of the students. Specific teaching and learning strategies, such as lectures and guided reading, are adopted for students to achieve an understanding of the current level of knowledge in the sphere of actuarial science.

In addition, case studies, real-life exercises and contributions from outside speakers
are used to achieve integration between theory and practice. Students work both in
small groups to benefit from peer interaction and carry out substantial pieces of
individual work. The Business Research Project included in the MSc component
provides students with the opportunity to acquire research and report-writing skills on
an individual basis.

Coursework provides on-going feedback on students' progress. Tests assess
knowledge gained. Examinations are used to assess both the knowledge gained at an
in-depth level and problem-solving ability.

The methods of teaching, learning and assessment are considered to be appropriate at
present, but are reviewed regularly.

Methods 6, 7, 8 pertain to the MSc in Actuarial Management, whereas methods 1-5
apply to the Graduate Diploma, Postgraduate Diploma and MSc Actuarial Management.

The MSc in Actuarial Management is designed and structured to allow for intellectual
progression through core modules taught in terms 1 and 2. Modules taught in term 2
normally build on the knowledge and skill acquired in term 1. Term three allows for
further progression by choosing specialist elective modules or a dissertation/project,
where students can apply knowledge and skills acquired earlier in the programme.

Students who fail to meet the requirements for the award of MSc Programme may be
awarded a postgraduate diploma provided they have successfully completed all core
content.

A minimum of 10 teaching and learning hours (both contact and non-contact) are
required for each credit awarded. The precise weighting of different types of teaching
and learning depends on the modules you take and the breakdown is therefore provided
within the appropriate module specifications.

Non-contact hours are for self-directed study and account for the minimum amount of
time you should spend studying independently, including subject research, reading,
working in groups and completing assignments and other homework.

Overall teaching and learning hours: approx 1850 hours
Contact hours: approx 288 hours

WHAT TYPES OF ASSESSMENT AND FEEDBACK CAN I EXPECT?

Assessment and Assessment Criteria

The assessment methods used on the programme consist of:
1. Closed book examination
2. Class tests and online quizzes
3. Presentations on both an individual and group basis on a range of actuarial topics
4. Writing of mock articles and reports on specialist subjects for both a specialist and non-specialist audience.
5. Writing a project proposal and formal business report on a chosen topic of interest to an actuarial audience

Method 5 pertains to the MSc in Actuarial Management, whereas methods 1-4 apply to Graduate Diploma, Postgraduate Diploma and MSc in Actuarial Management.

Coursework, examinations and dissertation.

Assessment Criteria are descriptions, based on the intended learning outcomes, of the skills, knowledge or attitudes that you need to demonstrate in order to complete an assessment successfully, providing a mechanism by which the quality of an assessment can be measured. Grade-Related Criteria are descriptions of the level of skills, knowledge or attributes that you need to demonstrate in order achieve a certain grade or mark in an assessment, providing a mechanism by which the quality of an assessment can be measured and placed within the overall set of marks. Assessment Criteria and Grade-Related Criteria will be made available to you to support you in completing assessments. These may be provided in programme handbooks, module specifications, on the virtual learning environment or attached to a specific assessment task.

Feedback on assessment

Feedback will be provided in line with our Assessment and Feedback Policy and will be provided in a variety of ways throughout your course, both formally and informally, in order to support your learning.

You will normally be provided with coursework feedback within three weeks of the submission deadline or assessment date. This would normally include a provisional grade or mark. The timescale for feedback on final projects or dissertations may be longer. Examination grades will be provided once they have been agreed by an Assessment Board.

More details about the feedback you can expect from individual modules and assessments will be provided by your lecturers.

The full policy can be found at:
https://www.city.ac.uk/__data/assets/pdf_file/0008/68921/assessment_and_feedback_p
Assessment Regulations

In order to pass your Programme, you should complete successfully or be exempted from the relevant modules and assessments and will therefore acquire the required number of credits. The Pass mark for each module is 50%.

If you fail an assessment component or a module, the following will apply:

Re-sit: you will normally be offered one re-sit attempt. However, if you did not participate in the first assessment and have no extenuating circumstances, you may not be offered a resit.

If you are successful in the re-sit, you shall be awarded the credit for that module. The mark used for the purpose of calculation towards your Award shall be calculated from the original marks for the component(s) that you passed at first attempt and the minimum pass mark for the component(s) for which you took a re-sit.

If you do not satisfy your re-sit by the date specified you will not progress and the Assessment Board shall require that you withdraw from the Programme.

If you would like to know more about the way in which assessment works at City, please see the full version of the Assessment Regulations at:

http://www.city.ac.uk/__data/assets/word_doc/0003/69249/s19.doc
### WHAT AWARD CAN I GET?

**Master's Degree:**

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<th>HE Level</th>
<th>Credits</th>
<th>Weighting (%)</th>
<th>Class</th>
<th>% required</th>
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</thead>
<tbody>
<tr>
<td>Degree</td>
<td>7</td>
<td>185</td>
<td>With Distinction</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>With Merit</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Without</td>
<td>50</td>
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**Postgraduate Diploma:**

<table>
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<th>HE Level</th>
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<th>Weighting (%)</th>
<th>Class</th>
<th>% required</th>
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</thead>
<tbody>
<tr>
<td>Degree</td>
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<td>125</td>
<td>With Distinction</td>
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<td></td>
<td>With Merit</td>
<td>65</td>
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<tr>
<td></td>
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<td></td>
<td>Without</td>
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<td></td>
<td></td>
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**Graduate Diploma:**

- Compensatory award only, where the student achieves between 40-49% for the two compulsory core modules.

### WHAT WILL I STUDY?

<table>
<thead>
<tr>
<th>Module Title</th>
<th>SITS Code</th>
<th>Module Credits</th>
<th>Core/ Elective</th>
<th>Can be Compensated?</th>
<th>Level</th>
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<tbody>
<tr>
<td>Actuarial Risk Management (CA1) - Part I</td>
<td>SMM042</td>
<td>20</td>
<td>C</td>
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<td>Actuarial Risk Management (CA1) - Part II</td>
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<td>Strategic Management and Marketing</td>
<td>SMM041</td>
<td>15</td>
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<td>Health and Care (ST1)</td>
<td>SMM030</td>
<td>25</td>
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<td>Life Insurance (ST2)</td>
<td>SMM031</td>
<td>25</td>
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<td>Pensions and Other Benefits (ST4)</td>
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<td>General Insurance: Reserving and Capital Modelling (ST7)</td>
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<td>Finance and Financial Reporting (Subject CT2)</td>
<td>SMM062</td>
<td>20</td>
<td>C</td>
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<td>Model documentation, analysis and reporting (CA2)</td>
<td>SMM040</td>
<td>20</td>
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<td>Modelling (Subject CT4)</td>
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<td>Contingencies (Subject CT5)</td>
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<td>Statistical Methods (Subject CT6)</td>
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<td>Financial Economics (Subject CT8)</td>
<td>SMM068</td>
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<td>Research Methods for Actuarial Professionals</td>
<td>SMM540</td>
<td>10</td>
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<td>Introduction to Model Office Building in Life Insurance</td>
<td>SMM019</td>
<td>10</td>
<td>E</td>
<td>N</td>
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<tr>
<td>Longevity Risk in Insurance and Pension Products</td>
<td>SMM022</td>
<td>10</td>
<td>E</td>
<td>N</td>
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<tr>
<td>Stochastic Asset Models</td>
<td>SMM024</td>
<td>10</td>
<td>E</td>
<td>N</td>
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<tr>
<td>Introduction to Copula Modelling</td>
<td>SMM027</td>
<td>10</td>
<td>E</td>
<td>N</td>
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<tr>
<td>Modelling and Data Analysis</td>
<td>SMM069</td>
<td>10</td>
<td>E</td>
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<tr>
<td>Topics in Quantitative Risk Management</td>
<td>SMM070</td>
<td>10</td>
<td>E</td>
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<td>Hedge Funds</td>
<td>SMM121</td>
<td>10</td>
<td>E</td>
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<td>Professionalism</td>
<td>SMM186</td>
<td>10</td>
<td>E</td>
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<tr>
<td>Credit Risk</td>
<td>SMM226</td>
<td>10</td>
<td>E</td>
<td>N</td>
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<tr>
<td>Behavioural Finance</td>
<td>SMM274</td>
<td>10</td>
<td>E</td>
<td>N</td>
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<tr>
<td>Alternative Risk Transfer (ART) and Risk Securitisation</td>
<td>SMM382</td>
<td>10</td>
<td>E</td>
<td>N</td>
<td>7</td>
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<tr>
<td>Liability Insurance</td>
<td>SMM385</td>
<td>10</td>
<td>E</td>
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<tr>
<td>Marine, Aviation and Transport Insurance</td>
<td>SMM386</td>
<td>10</td>
<td>E</td>
<td>N</td>
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</tbody>
</table>
TO WHAT KIND OF CAREER MIGHT I GO ON?

There is a continuous demand for capable postgraduate level executives in the actuarial profession. They work in fields such as; Insurance companies (life/non-life), consulting firms, government departments, banks and investment firms, teaching and research.

http://www.cass.city.ac.uk/more-about-cass/careers-services - Careers Service

http://www.cass.city.ac.uk/more-about-cass/alumni-services - Alumni Service

WHAT PLACEMENT OPPORTUNITIES ARE AVAILABLE?

Placements are not part of the programme – however:

All students are able to register a summer internship with the programme office for recognition on their transcript. Please refer to the MSc Moodle page for further details when you are choosing your electives.

WILL I GET ANY PROFESSIONAL RECOGNITION?

Accrediting Body: Institute and Faculty of Actuaries

Nature of Accreditation

There is a rolling accreditation agreement with the Institute and Faculty of Actuaries. For the MSc/Diploma in Actuarial Management, the agreement began in 2000-01 and is reviewed periodically.

On the basis of performance in the corresponding examination only, students who
successfully complete the programme may be eligible for recommendation for exemptions from subjects CA1, CA3, ST1, ST2, ST4, ST5, ST6, ST7 and ST8 (as well as CT2, CT4, CT5, CT6, CT8)

**HOW DO I ENTER THE PROGRAMME?**

To be accepted on to a Cass MSc degree you will need a good Bachelors degree. This usually means a UK 2.1 or above, or the equivalent from an overseas institution. Some level of previous study in the specific subject area may be required.

Applicants will need to submit two references, one of which must be an academic reference if the candidate does not have previous work experience. Previous work experience is not a requirement of our full time MSc courses.

We require all students who have not previously studied at in English to take an IELTS exam. The IELTS requirement is 7.0 with a minimum of 6.5 in writing.