PROGRAMME SPECIFICATION

KEY FACTS

Programme name	**Actuarial Management**
Award	MSc
School	Bayes Business School
Department or equivalent	Specialist Masters Programme
Programme code	PSACMA
Type of study	Full Time, Part Time
Total UK credits	180
Total ECTS	90

PROGRAMME SUMMARY

The degree is accredited by the Institute and Faculty of Actuaries and its structure mirrors that of the professional body qualifications.

The two stages of professional qualification mirrored in the degree are the following.

Stage 1

Stage 1 takes place in Terms 1 and 2 only and successful completion of it requires achieving at least 120 credits.
All students must complete 2 compulsory modules:

- SMM042 Actuarial Practice (CP1 – Part I) (20 credits)
- SMM043 Actuarial Practice (CP1 – Part II) (20 credits), AND

4 elective modules at least 2 of which must be Specialist Principles modules. Electives should be taken from the following:

- SMM030 Health and Care (SP1) (25 credits)
- SMM031 Life Insurance (SP2) (25 credits)
- SMM033 Pensions and Other Benefits (SP4) (25 credits)

- SMM034 Finance and Investment A (SP5) (25 credits)
- SMM035 Finance and Investment B (SP6) (25 credits)
- SMM036 General Insurance: Reserving and Capital Modelling (SP7) (25 credits)
- SMM037 General Insurance: Pricing (SP8) (25 credits)
- SMM092 Modelling Practice (CP2) (15 credits)
- SMM091 Professional Communication (CP3) (15 credits)

- SMM062 Finance and Financial Reporting (CB1) (20 credits)
- SMM071 Business Economics (CB2) (20 credits)
- SMM048 Insurance Risk Modelling (CS2) (30 credits)
- SMM068 Financial Economics (CM2) (30 credits)

Please note that CP1 Parts I and II together make up the professional subject CP1. Please also note that a choice of CP1 Parts I and II, CP2, CP3 and two Specialist Principle (SP) subjects enables you to reach the highest possible level of the professional qualification.

Stage 2

Successful completion of Stage 2 requires achieving 60 further credits. All students should complete:

- SMM540 Research Methods for Actuarial Professionals (10 credits) in Term 1, AND in Term 3

EITHER

- 5 short electives (10 credits each)

OR

- 3 short elective modules (10 credits each) and SMM799 Applied Research Project (20 credits)

OR

- 1 short elective module (10 credits) and SMM527 Business Research Project (40 credits).

Successful completion of both Stages 1 and 2 leads to the award of the MSc in Actuarial Management (180 credits).

Aims

- 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 Principles, Core Practices and Specialist Principles subjects of the examinations of the Institute and Faculty of Actuaries.

- To provide suitable preparation for students wishing to proceed with postgraduate study or enter employment in financial services, both in traditional and wider fields.
- 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 Term 3 elective modules covering both current research topics in actuarial science and relevant issues from wider fields, including insurance, finance, management and business analytics.

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 your classmates, 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:

- Acquire knowledge of the main areas of actuarial practice.
- Understand the use of the actuarial control cycle.
- Demonstrate knowledge and critical understanding of principal theories and concepts of the professional practice.
- Apply actuarial, statistical, and related methods to assess and manage risk effectively.
- Develop awareness of the general commercial environment.

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.
- Read and understand specialist literature.
- Develop and present reasoned arguments, both in technical and non-technical language.

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 Operational 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 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.

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 3 electives allow for further progression by choosing specialist elective modules or a dissertation/project, where students can apply knowledge and skills acquired earlier in the programme.

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. 1800 hours
Contact hours: approx. 288 hours (depending on module choices)

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.

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_policy.pdf

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 programme is weighted according to the number of credits awarded for each module. Pass / Fail modules are excluded from this calculation. The pass mark for each module is 50% and there are no minimum qualifying marks for individual components.

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

1. Re-Sit:

You will normally be offered one re-sit attempt.

If you are successful in the re-sit, you will be awarded the credit for that module. The mark for each assessment component that is subject to a re-sit will be capped at the pass mark for the module. This capped mark will be used in the calculation of the final module mark together with the original marks for the component(s) that you passed at first attempt.

2. Compensation:

Compensation can only be awarded by the Final Assessment Board and must be applied within the following limits and conditions:

Where you fail up to a total of 20 credits (15 for a postgraduate certificate), you may be eligible for compensation if:

- Compensation is permitted for the module involved (see the “What will I Study” section of the programme specification), and
- It can be demonstrated that you have satisfied all the Learning Outcomes of the modules in the Programme, and

- A minimum overall mark of no more than 10% below the module pass mark has been achieved in the module to be compensated, and
- An aggregate mark of 50% has been achieved overall.

If you receive a compensated pass in a module you will be awarded the credit for that module. The original component marks will be retained in the record of marks and your original mark shall be used for the purpose of your award calculation.

If, at the point where you have results for all taught modules:

- You have no more than 20 credits outstanding (15 for a PG Certificate), and
- The grade for this module(s) is 40% or above, and
- Your overall degree average is at least 50%, and
- If the module(s) is eligible for compensation.

Then you will **not** be required to undertake the re-sit for that module, as this will be eligible for compensation.

Please note:

- **If you fail more than 20 credits (excluding project modules), then you must retake all outstanding assessments with no exceptions.**

If you do not meet the pass requirements for a module and do not complete your re-sit by the date specified you will not progress and the Assessment Board will require that you be withdrawn from the programme.

If you fail to meet the requirements for the Programme, the Assessment Board will consider whether you are eligible for an Exit Award as per the table below.

To be awarded a Postgraduate Diploma you need to achieve at least 120 credits from modules in Terms 1, 2 and 3.

To be awarded a Postgraduate Certificate you need to achieve at least 60 credits from modules in Terms 1, 2 and 3.

If you fail to meet the requirements for the programme and are not eligible for the award of a lower qualification, 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:

	HE Level	Credits	Weighting (%)
Degree	7	180	100

Class	% required
With Distinction	70
With Merit	65
Without classification	50

Postgraduate Diploma:

Students must achieve 120 credits, with a minimum mark of 50%.

	HE Level	Credits	Weighting (%)
Degree	7	120	100

Class	% required
With Distinction	70
With Merit	65
Without classification	50

Postgraduate Certificate:

Students must achieve 60 credits, with a minimum mark of 50%.

	HE Level	Credits	Weighting (%)
Degree	7	60	100

Class	% required
With Distinction	70
With Merit	65
Without classification	50

WHAT WILL I STUDY?

Module Title	SITS Code	Module Credits	Core/ Elective	Can be Compen-sated?	Level
Actuarial Practice (CP1 – Part I)	SMM042	20	C	Y	7
Actuarial Practice (CP1 – Part II)	SMM043	20	C	Y	7
Research Methods for	SMM540	10	C	Y	7

Actuarial Professionals					
Health and Care (SP1)	SMM030	25	E	N	7
Life Insurance (SP2)	SMM031	25	E	N	7
Pensions and Other Benefits (SP4)	SMM033	25	E	N	7
Finance and Investment A (SP5)	SMM034	25	E	N	7
Finance and Investment B (SP6)	SMM035	25	E	N	7
General Insurance: Reserving and Capital Modelling (SP7)	SMM036	25	E	N	7
General Insurance: Pricing (SP8)	SMM037	25	E	N	7
Modelling Practice (CP2)	SMM092	15	E	Y	7
Professional Communication (CP3)	SMM091	15	E	Y	7
Finance and Financial Reporting (Subject CB1)	SMM062	20	E	Y	7
Business Economics (Subject CB2)	SMM071	20	E	Y	7
Insurance Risk Modelling (Subject CS2)	SMM048	30	E	N	7
Financial Economics (Subject CM2)	SMM068	30	E	N	7
Applied Research Project	SMM799	20	E	N	7
Business Research Project	SMM527	40	E	N	7
Modelling and Data Analysis	SMM069	10	E	Y	7
Enterprise Risk Management	SMM050	10	E	Y	7
Applied Machine Learning*	SMM284	10	E	Y	7
Applied Natural Language Processing*	SMM694	10	E	Y	7
Data Management Systems*	SMM695	10	E	Y	7
Introduction to Copula Modelling	SMM027	10	E	Y	7
Introduction to Model Office Building in Life Insurance	SMM019	10	E	Y	7
Emerging Global Risks	SMM925	10	E	Y	7
Stochastic Claims Reserving in General Insurance	SMM025	10	E	Y	7
Topics in Quantitative Risk Management	SMM070	10	E	Y	7
Alternative Risk Transfer and	SMM382	10	E	Y	7

Risk Securitisation					
Ethics, Society and the Financial Sector	SMM500	10	E	Y	7
VBA with Application for Finance	SMM238	10	E	Y	7
Technical Analysis and Trading Systems	SMM529	10	E	Y	7

*** Prerequisites: note that in order to be allowed to take any of these three modules, you need to pass first both the SMM693 Introduction to R and SMM692 Introduction to Python programming modules by a pre-specified deadline.**

During Term 3 you will be able to choose from a range of electives to personalise your experience.

This list of electives is an indication of the range of modules that can be on offer and is subject to change due to circumstances such as: enhancing or updating the quality and content of educational provision; responding to student feedback; academic staffing changes; the number of students in each programme; a lack of student demand for certain modules; or factors beyond the institution's reasonable control, such as meeting the latest requirements of a commissioning or accrediting body. For these reasons, not all the electives listed will be offered every year. New (additional or replacement) modules may also be added for these reasons.

There may also be pre-requisites for joining a module, and space and timetable availability restrictions may also apply.

The list of electives offered in a given year will be confirmed by February 1st.

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.

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. Exemptions may be awarded in relation to professional subjects CP1, CP2, CP3, SP1, SP2, SP4, SP5, SP6, SP7 and SP8 (as well as CB1, CB2, CS2, CM2).

HOW DO I ENTER THE PROGRAMME?

To be accepted on to a Bayes MSc degree you will need a good Bachelor's 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.

RPL/RP(E)L Requirements

Applicants with prior exemptions in CP1 – Part I or CP1 – Part II, corresponding to compulsory modules on MSc in Actuarial Management, do not have to pass the modules. However, the corresponding number of credits needs to be obtained through passing other elective modules including an additional SP subject and the CP2 subject or an offered Core Principle subject.

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