

1. Course Codes F7Q7-QRM/F7Q5-QRM/ F7Q0-QRM		2. Course Title Quantitative Risk Management		3. School/Institute MACS		4. Type PG taught course		5. Awards MSc, PG Diploma, PG Certificate	
6. Course Accredited by			7. QAA Subject Benchmarking Group(s)			8. Date of Production/Revision 7 May 2009			
9. Composition		10. Arrangement of Modules						11. Awards, Credits & Level	
		Mandatory and Optional Modules							
8 modules at 15 credits or equivalent plus dissertation 8 taught modules at 15 credits or equivalent (7 mandatory with 1 optional modules)		Semester 1		Starting From Semester 2		Starting From Semester 2/3		180 SCQF credits for MSc; incl 150 credits at Level 11 120 SCQF credits for PG Dip; incl 90 credits at Level 11 60 SCQF credits for PG Cert; incl 45 credits at Level 11	
		Module Code & Title	Effort Hours	Module Code & Title	Effort Hours	Module Code & Title	Effort Hours		
		Mandatory Modules:		Mandatory Modules:		MSc only:			
		F71ER Enterprise Risk Management I	150	F71EM Enterprise Risk Management II	150	F71QD MSc Dissertation	600		
		C31FM Financial Markets	150	F71CM Credit Risk Modelling	150				
		F71DV Derivatives Markets and Pricing	150	F71QS Special Topics in Quantitative Risk Management	75				
		Optional Modules:							
		F71SM Statistical Methods	150	F71ES Economic Scenario Generation Models	75				
		C31CF Corporate Finance	150	C21FE Financial Econometrics	75				
				F71TS Time Series Analysis	75				
12. Mode and Location of Study				13. Duration of Study (months)					
Full-time <input checked="" type="checkbox"/> Part-time <input checked="" type="checkbox"/>						Standard		Maximum	
Home Campus <input checked="" type="checkbox"/> Other Campus <input type="checkbox"/> (specify)						Full-time	Part-time	Full-time	Part-time
Collaborative Partner <input type="checkbox"/> Approved Learning Partner <input type="checkbox"/>				Masters		12	24	24	84
14. Mode of Delivery				Diploma		9	24	21	48
				Certificate		9	24	21	48
Conventional <input checked="" type="checkbox"/> Blended <input type="checkbox"/> Independent <input type="checkbox"/>									

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15. Level of Modules Level 11 <input checked="" type="checkbox"/> Levels 7-10 (UG) <input type="checkbox"/> Mixed <input type="checkbox"/> Modules not at Level 11 (codes):			16. Collaborative/Approved Learning Partner Course <i>(Please specify details of partner institutions)</i>	

Course Notes

1. Nominal Pass Mark/Grade <ul style="list-style-type: none"> Masters: C (50%) Diploma: D (40%) Certificate: D (40%) 	2. Summary of Assessment Methods <ul style="list-style-type: none"> % coursework: Variable according to module choice % examination: Variable according to module choice 																									
3. Re-assessment Opportunities Students are offered the standard resit opportunities in a maximum of 3 modules where they have achieved a grade less than C for progression to the MSc dissertation and a grade less than D for the Award of the PG Diploma. The Board of Examiners may choose to offer a student the opportunity to resit further modules, if a student would otherwise fall slightly short the criteria for progression to the MSc dissertation or for the Award of the PG Diploma, but this would normally be limited to a maximum of 4 modules in total. With respect to timing of resits we will adopt exactly the same policy as in the MSc in Financial Maths: students will have to take the examination again in the following year with the next cohort and progression to the dissertation will not be allowed. The only module for which a resit paper will be available in the autumn is “Statistical Methods” which also is part of the MSc in Actuarial Science.																										
4. Award Criteria																										
	<table border="1"> <thead> <tr> <th></th> <th>Number of Module Passes</th> <th>Overall Mark/Grade</th> <th>Basis of Overall Mark/Grade</th> <th>Other Requirements</th> </tr> </thead> <tbody> <tr> <td>• Master (Distinction):</td> <td>8+ dissertation</td> <td>70%</td> <td>Average taken across the taught modules. Dissertation at grade A (70%).</td> <td>Weight 8 passes at grade E (30%) or above with at least weight 5 passes at grade C (50%) or above</td> </tr> <tr> <td>• Master:</td> <td>8+ dissertation</td> <td>50%</td> <td>Average taken across the taught modules. Dissertation at grade C (50%).</td> <td>Weight 8 passes at grade E (30%) or above with at least weight 5 passes at grade C (50%) or above</td> </tr> <tr> <td>• Diploma (Distinction):</td> <td>8</td> <td>70%</td> <td>Average taken across the taught modules.</td> <td>Weight 8 passes at grade E (30%) or above with at least weight 5 passes at grade D (40%) or above</td> </tr> <tr> <td>• Diploma:</td> <td>8</td> <td>40%</td> <td>Average taken across the taught modules.</td> <td>Weight 8 passes at grade E (30%) or above with at least weight 5 passes at grade D (40%) or above</td> </tr> </tbody> </table>		Number of Module Passes	Overall Mark/Grade	Basis of Overall Mark/Grade	Other Requirements	• Master (Distinction):	8+ dissertation	70%	Average taken across the taught modules. Dissertation at grade A (70%).	Weight 8 passes at grade E (30%) or above with at least weight 5 passes at grade C (50%) or above	• Master:	8+ dissertation	50%	Average taken across the taught modules. Dissertation at grade C (50%).	Weight 8 passes at grade E (30%) or above with at least weight 5 passes at grade C (50%) or above	• Diploma (Distinction):	8	70%	Average taken across the taught modules.	Weight 8 passes at grade E (30%) or above with at least weight 5 passes at grade D (40%) or above	• Diploma:	8	40%	Average taken across the taught modules.	Weight 8 passes at grade E (30%) or above with at least weight 5 passes at grade D (40%) or above
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• Certificate:		4	40%	Average taken across the best weight 4 taught modules.			Weight 4 passes at grade E (30%) or above with at least weight 2 passes at grade E (30%) or above in compulsory modules and with at least weight 3 passes at grade D (40%) or above		
5. Module Choice/Dissertation									
<p>Students will normally take the seven mandatory taught modules with one option chosen from a further two optional modules. Under exceptional circumstances the MACS Director of Learning and Teaching may approve the substitution of a mandatory module with an alternative module at SCQF level 11 (for example, a module from the MSc Financial Mathematics or MSc Actuarial Science).</p> <p>Students are given a range of dissertation choices. Students also have the opportunity to propose their own topics but such proposals are subject to the approval of the Course Director.</p>									
6. Additional Information									
<p>(a) Special Topics: Students choose a total of 4 out of about 8 topics, each examined by oral presentation or short written essay. The topics offered depend upon the availability and the interests of staff in the participating schools.</p> <p>(b) In exceptional circumstances the exam board can exercise its discretion in the event that a candidate falls slightly short of the standard criteria to award the MSc or Diploma or Postgraduate Certificate.</p> <p>(c) Under exceptional circumstances the MACS Director of Learning and Teaching may approve the substitution of a mandatory module with an alternative module at SCQF level 11 (for example, a module from the MSc Financial Mathematics or MSc Actuarial Science).</p>									

The accompanying Course Description provides details of aims, outcomes, teaching & learning and assessment policies for the course. Details of individual modules are provided in the appropriate Module Descriptors.

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10. Educational Aims of the Course

The principal aims of the course are to

- provide intensive and high-quality education in a postgraduate context in a wide range of subjects in quantitative risk management, including market and credit risk management and enterprise-wide risk management
- enable students to develop detailed knowledge and critical understanding, and acquire a range of new skills, in central areas in quantitative risk management
- enable students to communicate and work effectively with peers and academic staff, demonstrating appropriate levels of autonomy, initiative, and responsibility
- provide a challenging period of study which enables students to test themselves against standards requiring intensive work and strong commitment in a demanding postgraduate environment
- enable students to plan and execute a significant research project or investigation in quantitative risk management, demonstrating extensive, detailed and critical understanding of the appropriate area.

11. The Course provides opportunities for learners to achieve the following outcomes:

Subject Mastery	<p><i>Understanding, Knowledge and Cognitive Skills</i></p> <ul style="list-style-type: none"> • Extensive knowledge and critical understanding of many of the principal concepts, techniques and tools of contemporary quantitative risk management • Expertise in using appropriate techniques and tools in the solution of realistic practical risk management problems • Development of problem solving skills
	<p><i>Scholarship, Enquiry and Research</i></p> <ul style="list-style-type: none"> • Extensive, detailed and critical understanding of the core areas and issues in quantitative risk management • Crucial comprehension of the probabilistic and statistical models that underlie quantitative risk management methods • Understanding of the financial and economic concepts that have led to the development of quantitative risk management models and methods • Awareness and understanding of current issues in quantitative risk management

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Personal Abilities	<i>Industrial, Commercial and Professional Practice</i>
	<ul style="list-style-type: none"> • Development of critical awareness of current practices within quantitative risk management • Conceptual understanding of core areas and issues in quantitative risk management and the ability to apply these in a variety of financial mathematics contexts • Understanding of the role of quantitative risk management within a financial enterprise • Knowledge of the regulatory environment that has led to the development of quantitative risk management as a discipline
	<p><i>Autonomy, Accountability and Working with Others</i></p> <ul style="list-style-type: none"> • Demonstrate the ability to learn independently • Development of planning and organisational skills through self-management and time-management • Ability to negotiate issues arising in working as part of a team <p><i>Communication, Numeracy and ICT</i></p> <ul style="list-style-type: none"> • Demonstrate skills in communication, with peers and other colleagues, on general and specialised topics. • Develop and demonstrate skills in communication in writing and giving presentations • Develop and demonstrate skills in computer packages and languages in order to present and communicate ideas and to solve problems

12. Approaches to Teaching and Learning:

The overall approach in the course is student focussed and is designed to encourage students to take responsibility for their own development and learning. It is offered in a traditional campus-based, cohort model. Some of the modules share classes with final year honours students; all such modules are of MSc level being differentiated from the corresponding undergraduate courses by assessment.

The modules offer traditional lecture-based material, laboratory based practicals as well as guided reading courses. All modules have an element of coursework ranging from traditional solution of mathematics problems to discursive type assignments and applications to real-life problems.

Approaches to learning and teaching are continuously reviewed.

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13. Assessment Policies:

Student assessment is determined by a range of assessment methods.

All modules have a formative assessment component. Some modules have a coursework component, which is formative by nature, to enable students to achieve learning outcomes which cannot be appropriately tested in traditional examinations. Some modules are examined synoptically.

The guided reading course (Special Topics in Quantitative Risk Management) is assessed by a mixture of written essays and presentation.

Dissertation projects are double-marked. Once these marks have been produced, if they are within an acceptable range of each other (that range has been determined by the Programme Committee for the course), then both marks are forwarded to the External Examiner for consideration. If the marks difference is outside the range, then both academic markers are asked to agree on a mark. If they state that there is not enough flexibility in their marks to overcome this problem, then both marks are reported to the External Examiner. Final decisions are taken by the Board of Examiners.

The accompanying [Course Structure](#) template provides details of modules, awards and credits for the course.

The accompanying [Course Notes](#) provide details of stage notes, progression requirements and award requirements for the course.