

BSc (Hons) Mathematics for Finance and Management

Programme Specification

Primary Purpose:

Course management, monitoring and quality assurance.

Secondary Purpose:

Detailed information for students, staff and employers. Current students should refer to the related Course Handbook for further detail.

Disclaimer:

The University of Portsmouth has checked the information given in this Programme Specification and believes it to be correct. We will endeavour to deliver the course in keeping with this Programme Specification but reserve the right to change the content, timetabling and administration of the course whilst maintaining equivalent academic standards and quality.

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Programme Specification

1. Named Awards BSc Mathematics for Finance and Management

2. Course Code (and UCAS Code if applicable)

UCAS: G161 COURSE C0092

3. Awarding Body University of Portsmouth

4. Teaching Institution University of Portsmouth

5. Accrediting Body

N/A

6. QAA Benchmark Groups

Mathematics, Statistics and Operational Research

7. Document Control Information

Release 1.1 Dated Aug 2012

8. Effective Session

2012 - 2013

9. Author Ms Lynn Pevy

5 5

10. Faculty

Faculty of Technology

11. Department

Department of Mathematics

12. Educational Aims

The course aims to equip students to work as professional mathematicians. In addition, and more generally, the course aims to:

• Provide a challenging, stimulating and self-rewarding study environment.

• Provide a framework whereby individual study paths may be forged based on choice from a range of options.

• Enable students to broaden their studies by selecting a language as a substitute for a degree option choice at level 5.

• Develop a range of keys skill by means of opportunities provided in the study units.

• Accommodate student needs in relation to maximising their career potential by enabling them to develop knowledge,understanding and skills in their chosen subject area.

• Promote career aspirations by including study topics on general professional practice and study skills.

This course should be of interest to students currently studying Mathematics with the intention of pursuing a career in management or finance. Typical subject mixes might thus involve mathematics with economics, business studies or computer science.

It is expected that students graduating from this course will find employment in finance and management, although graduates will be well placed to enter a variety of careers in industry, commerce, applied research, and education.

13. Reference Points

The major reference points are:

- The University of Portsmouth Curricula Framework Document 2012.
- The Subject BenchmarkStatements.
- Framework for Higher Education Qualifications
- The QAA Code of Practice for the Assurance of Academic Quality and Standards in Higher Education.

In particular the programme has been designed with the following benchmark elements in mind:

Mathematics, Statistics, and Operational Research (MSOR)

A graduate who has reached the threshold level should be able to:

 demonstrate a reasonable understanding of the main body of knowledge for the programme of study;

• demonstrate a reasonable level of skill in calculation and manipulation within this basic body of knowledge;

• apply core concepts in well-defined contexts, showing judgement in the selection and application of tools and techniques;

• understand logical arguments, identifying the assumptions and conclusions made;

• demonstrate a reasonable level of skill in comprehending problems, formulating them mathematically and obtaining solutions by appropriate methods;

• present straightforward arguments and conclusions reasonably accurately and clearly;

• demonstrate appropriate transferable skills and the ability to work independently and under guidance.

In addition the following MSOR benchmark elements are borne in mind:

General principle - "...graduates from this programmes will have met at least one major area of application of their subject in which it is used in a serious manner and is essential for proper understanding."

Methods and techniques - "All graduates will have knowledge and understanding of, and the ability to use, mathematical methods and techniques appropriate to their programme. Common ground for all programmes will include basic calculus and basic linear algebra. Other methods and techniques will be developed according to the requirements of the programme, which will also largely determine the levels to which the developments are taken."

Areas of mathematics - "Graduates from practice-based programmes will also have knowledge of results from a range of areas of MSOR, but the knowledge will commonly be designed to support the understanding of models and how and when they can be applied, rather than [..] providing a deep understanding of the mathematical derivation of the models.."

The final year project is the key component in addressing the requirements of the FHEQ honours level qualification descriptor withrespect to ensuring that students acquire the ability to manage their own learning and to make use of scholarly reviews and primarysources.

In addition to taking the 20 credit final year project and/or the Undergraduate Ambassador Scheme unit students have the option to undertake further independent study and further develop their

research skills at level 6 in units M304 (History and Philosophy of Mathematics) and M303(Advancing Mathematics)

14. Learning Outcomes

A. Knowledge and Understanding of:

- **1.** General and commonly used mathematical principles and techniques
- 2. Linear algebra and solution of equations including by numerical methods.
- 3. Statistics and Operational Research and their applications in Finance and Investment modelling.
- 4. Application of Stochastic Calculus to financial problems and investment analysis.
- 5. Computing principles, software processes and computer packages.
- 6. Financial management principles.
- 7. Management ideas relating to monitoring, control and profitability.
- 8. Codes of Practice and the ethical conventions that underpin practice

Learning and Teaching Strategies and Methods

Core knowledge is acquired mainly through lectures, tutorials and practical computer laboratory work. Individual learning is supported by directed reading, study guides, VLE content, and careful selection of worked examples. Sandwich students will gain through experience and observation in the placement setting.

<u>Assessment</u>

Testing of theoretical knowledge is through written and computer-based examinations, and careful selection of a graduated series of exercises and coursework.

B. Cognitive (Intellectual or Thinking) Skills, able to:

1. Develop general and critical abilities of an intellectual, analytical, creative and problem-solving nature.

2. Use judgement in the application of Mathematical methods and techniques in the solution of problems.

3. Analyse systems and select mathematical and statistical methods and techniques appropriate for the modelling, simulation and solution of problems and processes in industry and commerce.

4. Reflect on work done in order to improve mathematical models and practice.

5. Develop critical skills with regard to literature searching, appraising and evaluating from a variety of sources and synthesising theresults.

6. Plan and execute a significant project at final year level and report on it.

Learning and Teaching Strategies and Methods

These skills are acquired by reading books and articles in learned journals, problem solving and appropriate use of material. Particularemphasis is placed upon practice of the techniques and processes.

<u>Assessment</u>

Testing is through examinations and coursework.

The final year project is assessed by dissertation and oral presentation.

C. Practical (Professional or Subject) Skills, able to:

1. Reflectively formulate mathematical models for the resolution of problem or requirement specifications.

2. Give critical advice on the use of a given mathematical model.

3. Use computer packages to solve problems in Statistics, Finance, Operational Research or Mathematics.

4. Use professional judgement in the selection and use of industry standard software for specific purposes.

5. Create statistical models and process data using selected inferential tests.

Learning and Teaching Strategies and Methods

Tutor supported laboratory work and case studies will be used to develop appropriate skills.

<u>Assessment</u>

Through coursework including the development of algorithms and report writing.

D. Transferable (Graduate and Employability) Skills, able to:

- 1. Communicate effectively in appropriate forms of presentation/communication.
- 2. Use information technology to handle data for simulation and analysis.
- 3. Application of number in the understanding and interpretation of data before and after processing.
- 4. Use problem-solving techniques to formulate appropriate problem solving strategies.

5. Improve learning and performance by building on previous experience in order to generalise ideas and skills.

- 6. Work with others to achieve goals but nevertheless be distinctively individual.
- 7. Demonstrate productive capability in the placement setting. (Those undertaking placement).

Learning and Teaching Strategies and Methods

Study skills are acquired through "doing" as is expected in a mathematically-based programme. The personal tutor scheme has astrong academic content at Level 4, serving to help develop skills. The emphasis is generally in building skills and confidence in their use, coupled with the ability to apply appropriate skills. In addition, for those undertaking it, these skills will beapplied in the placement setting.

Lectures/seminars on presentations and communication are integrated into unit M201 (Mathematics Graduates and Employment). The personal tutor system at level 4 involves an element of group work. The provision of a student study area has encouraged informal working groups to develop.

Assessment

Skills will be developed to a certain extent within all units and assessed as part of the normal assessment of units. The placement experience will be assessed by a supervisor visit, an employer's report, the student's written report and an oral presentation.

Assessed presentations form part of M201 (Mathematics Graduates and Employment), M301 (the final year project) and M302 (Undergraduate Ambassador Scheme).

The ability of a student to reflect on their performance and/or skills is overtly assessed as part of level 5 unit M201.

15. Course Structure, Progression and Award Requirements

This is a 3 or 4 year programme depending on whether a student elects for a sandwich year. The University strongly recommends the 4 year option since students gain invaluable experience from a paid industrial placement. The placement usually takes place at the end of the second year of study and a placement student could expect to be in employment for a full calendar year.

A total of 360 credits are required to achieve the award. Standard University Regulations apply. The course is constructed from 20 credit point year-long units, where 20 credits represent 200 hours of study time and includes between 18 and 72 hours of time-tabled activities depending on level and the nature of the unit content.

Students may study a language through the IWLP (Institution Wide Language Programme). This would be a 20 credit unit taken at level 5 instead of an optional unit. Information talks from the Institution Wide Language programme take place annually during the induction period.

16. Employability Statement

• Career management skills are delivered through the level 5 Mathematics Graduates and Employment unit. This VICTORY basedunit incorporates careers education, information and guidance and is delivered by the department supported by the Careers department. This unit provides an opportunity for students to write a CV. This part of the unit is assessed by their personal tutor whowill therefore have reference to the CV if called upon to provide references.

- The Undergraduate Ambassador Scheme unit is a popular option that is offered at level 6. Students with an interest in teachingare also encouraged to become involved in the University's Ambassador Scheme. The department has a high level of involvement withschools through the Fun Maths scheme. Students in all years are encouraged to become involved in this activity.
- Students in all years are encouraged to visit Purple Door to seek information. The level 5 Mathematics Graduates and Employment unit requires that each student has made at least one such visit. Work placement opportunities are advertised in thedepartment. Students are invited to talks in the department that might be of interest to them in terms of careers. Talksfrom employers and alumni,and talks about further study are specifically arranged.
- Personal Development Planning is pursued through thepersonal tutorial system.
- All units have aspects which contribute to the development of employability skills and/or research skills for further study.
- The development of team work skills begins as part of the extended induction process whereby the members of each level 4 personal tutorial group are required to produce a poster on a designated mathematical topic. The groups negotiate the allocation of roles and work collaboratively over the first few weeks of the semester to produce a poster and present this at an informal social event to which students of all years and staff are invited.
- The working relationships established over the first few weeks in the level 4 personal tutorials establish groups within which opportunities are provided for students to work collaboratively and provide and receive constructive criticism.
- As part of the level 5 the Mathematics Graduates and Employment unit students are required to provide feedback and constructive criticism on oral presentations given by their peers. Individuals are further required to reflect and respond to the feedback they have received from peers.
- Opportunities to 'work with others to achieve goals but nevertheless be distinctively individual' (Learning Outcome D6) are available at all levels.
- The level 5 Mathematics Graduates and Employment unit provides further opportunities for the further development of team skills with students working in teams on mathematically related projects.
- Additional opportunities for leadership and team work skills development are provided through opportunities to become a student mentor, course representative, participate in Fun Maths, the University's Ambassador Scheme, the Maths Society, Employability Day, and in the Undergraduate Ambassador Scheme unit.

17. Support for Student Learning

- A Course leader and year leaders manage the course.
- An extensive induction programme at level 4 introduces the student to the University and their course. Induction programmes at levels five and six address option choices, projects and careers. Industrial placement and interview preparation are addressed where relevant.
- The level 4 induction programme includes a group project requiring use of the internet and library resources. This develops group working skills and encourages the development of peer support

- Level 5 students act as mentors to level 4 tutor groups throughout the extended induction programme until the poster presentation social event.
- Each student has a personal tutor, responsible for pastoral support and guidance. At level 4 the student meets the tutor on aweekly basis. At level 5 the student meets their tutor in connection with the careers unit. At level 6 the student's personal tutor is their project supervisor. This gives the students a measure of choice in their personal tutor at the final stage.
- University support services include careers, financial advice, housing, counselling etc.
- A dedicated Student Services Centre.
- The Academic Skills Unit.
- The Additional Support and Disability Advice Centre (ASDAC).
- Excellent library facilities.
- Student course and unit handbooks provide information about the course structure and University regulations etc.
- Key Skills opportunities are incorporated into all units.
- Feedback is provided for all assessments.
- Personal Development Planning (PDP) for all awards.
- The Maths Café provides a high level of additional support for all units.
- A Faculty Learning Centre (incorporating the Maths Café base) is accessible within the same building as the department.

18. Admissions Criteria

A. Academic Admissions Criteria

Standard University rules apply but in addition a UCAS tariff of 260+ is expected, made up of at least two A2 level passes to include Mathematics. Other qualifications are accepted including Vocational 'A' levels, BTEC and access courses.

B. Disability

The University makes no distinction in its admissions policy with regard to disability and will endeavour to make all reasonable adjustments in order to make it possible for students to study at Portsmouth on a course of their choice.

19. Evaluation and Enhancement of Standards and Quality in Learning and Teaching

A. Mechanisms for Review and Evaluation

- Course Leader's Annual Standards and Quality Evaluative Review
- Head of Department's Annual Standards and Quality Evaluative Review.
- Unit and Course Level student feedback considered at Board of Studies.
- Unit Assessment Board consideration of student performance for each programme.
- Annual Standards and Quality Reports to Board of Studies, including consideration of Subject and Award External Examiner Reports.
- Department Learning and Teaching Committee
- Periodic Programme Review.
- Student Representatives and Student/Staff Consultative Committees.
- National Student Survey.
- Staff Performance and Development Review.
- Peer Review and Development Framework.
- Faculty Learning and Teaching Committee.

B. Responsibilities for Monitoring and Evaluation

- Unit Co-ordinators for unit content and delivery.
- Course Leader for day-to-day running of course.
- Board of Studies with overall responsibilities for operation and content of course.
- Head of Department.
- Associate Dean (Academic).
- Associate Dean (Students).
- Quality Assurance Committee.
- Unit, Award and Progression Board of Examiners.

C. Mechanisms for Gaining Student Feedback

- Student Representation on Board of Studies.
- Student Staff Consultative Committees.
- Unit and Course level student feedback questionnaires.
- University participates in external student surveys, eg National Student Survey (NSS), PostgraduateResearchExperienceSurvey (PRES) and International Student Barometer (ISB).

D. Staff Development Priorities

- Academic staff undertake activities related to research, scholarship, teaching and learning and student support and guidance.
- Annual staff performance and development reviews match development to needs.
- Managers undertake a variety of management development programmes.
- New academic staff required to undertake PgCert Learning and Teaching in Higher Education.
- All academic staff encouraged to seek Higher Education Academy membership.
- Academic staff new to teaching required to undertake Initial Professional Development Programme (iPROF).
- Support Staff are encouraged to attend short courses in areas such as minute taking, and specific IT packages.

20. Assessment Strategy

Level 4

Assessment at level 4 is predominately by coursework and computer based tests. Considerable flexibility exists in the assessment regime for the Fundamental Calculus and Linear Algebra units (M111 and M112) thus providing an opportunity for the development of time management skills. These are pre-requisites for many later units and the assessment for these units includes computer based assessments with a full range of formative sample tests and additional opportunities to improve performance. M113 (Mathematical Foundations) is assessed by coursework to provide students with appropriate feedback on the presentation of mathematical arguments and proof. In accordance with the subject benchmark statements the level 4 units, M131 (Computational Mathematics), M121 (Mathematical Modelling)and M141 (Introduction to Statistical Theory and Methods) provide an early opportunity for students to become 'at ease' with the use of algorithms and the use of mathematical and statistical software.

Level 5

Level 5 units are assessed in accordance with the nature of the material. This typically provides a mix of formal examinations and coursework. Unit M201 (the Careers unit) is partially assessed by personal tutors to ensure that each student gains adequate feedback, particularly on the CV component, and has the opportunity to discuss careers more fully with their personal tutor.

Level 6

The student has a wide choice of options at level 6 and the assessment regimes are selected in accordance with the nature of the units. Unit M301 (the final year project) provides an opportunity for the development of research and presentation skills and is assessed primarily by the project report. The project presentation is partially peer assessed.

21. Assessment Regulations

Standard university rules apply. See Assessments and Regulations (http://www.port.ac.uk/departments/services/academicregistry/qualitymanagementdivision/assessmentandregulations/)

22. Role of Externals

Subject External Examiners who will:

- oversee unit assessment and usually attend Unit Assessment Boards;
- approve unit assessment strategy;
- sample assessment artefacts;
- present report to Unit Assessment Boards.

Award External Examiners (usually also a Subject External Examiner) who will:

- oversee and attend Award/Progression Boards;
- scrutinise and endorse the outcomes of assessment;
- ensure that the standard of the award is maintained at a level comparable with that of similar awards elsewhere in the United Kingdom.

23. Indicators of Standards and Quality

A. Professional Accreditation/Recognition

This course will meet the educational requirements of the Chartered Mathematician designation, awarded by the Institute of Mathematics and its Application, when it is followed by subsequent training and experience in employment to obtain equivalent competences to those specified by the Quality Assurance Agency (QAA) for taught Masters degrees.

B. Periodic Programme Review (or equivalent)

In the Discipline Audit Trail of Mathematics as part of the QAA Institutional Audit in April 2004 the standard of student achievement in the programme was judged to be appropriate to the title of the award and its positioning within the FHEQ. The Audit also found thequality of learning opportunities available to students to be suitable for the programme and that the award is appropriately situated within the FHEQ.

The course was included in the Periodic Programme review in February 2008. Curriculum and annual monitoring processes wereapproved.

C. Quality Assurance Agency

QAA Institutional Audit, December 2008, 'broad confidence' (for full report see <u>QAA Institutional</u> <u>Audit: University of Portsmouth 2008</u>).

D. Others

In the 2008 Research Assessment Exercise 75% of the Applied Mathematics research at Portsmouth was judged to be world-leading or internationally excellent. (The 4*+3* score was the best in the UK and matched only by three other universities)

24. Other Sources of Information

Other sources of information may be found in

- Course Approval Document.
- Student Handbook.
- University of Portsmouth Curricula Framework.
- University of Portsmouth Undergraduate Prospectus.
- Assessment Regulations.
- University of Portsmouth (<u>http://www.port.ac.uk/</u>) and (http://www.port.ac.uk/maths) websites.

Unit Assessment Map

UNIT	S					COU	RSEWORK		EXAMINATION								
Level	Name	Code	Credit	Delivery	Core/ Option	Total %	Type of Artefact	Duration/ Length	Weighting %	Total %	Open/ Closed	Duration (hrs)	Weighting %				
4	Fundamental Calculus (M111)	U20737	20	Year-long Campus	С	0	Series of repeatable pass/fail computer based tests (all must be passed)	45 mins		100	Closed	2					
4	Linear Algebra (M112)	U20738	20	Year-long Campus	С	0	Series of repeatable pass/fail computer based tests (all must be passed)	45 mins		100	Closed	2					
4	Mathematical Foundations (M113)	U20739	20	Year-long Campus	С	100	Question set 1 Question set 2	3,000 words total (approx.)	40% 60%								
4	Mathematical Models (M121)	U20735	20	Year-long Campus	С	100	Portfolio of written solutions to a prescribed selection of the formative problems and exercises issued throughout this unit.	Equivalent to 3000 words.									
4	Computational Mathematics (M131)	U20741	20	Year-long Campus	С	40	Commented printouts of programs written by students			60	open	1.5					
4	Introduction to Statistical Theory and Methods (M141)	U20736	20	Year-long Campus	С	50	series of questions on applications			50	Closed	1					
5	Maths Graduates & Employment (M201)	U20742	20	Year-long Campus	С	100	 (1) Careers skills assignment (2) Team project (3) Applicable Mathematics report and presentation 	Equivalent to 2500 words plus a 10 min presentation	Pass/Fail Pass/Fail Pass/Fail								
5	Intermediate Calculus (M211)	U20743	20	Year-long Campus	С	50	Series of timed and untimed computer based assessments including a portfolio of solutions which will demonstrate the use of computer algebra systems.			50	Closed	1.5					
5	Real and Complex Analysis (M212)	U20744	20	Year-long Campus	0	40	(1) Set of exercises(2) Set of exercises		20 20	60	Closed	2					
5	Algebraic Structures & Discrete Mathematics (M213)	U20745	20	Year-long Campus	0	20	Portfolio of solutions to selected group work questions			80	Closed	2					
5	Applied Mathematics (M221)	U20746	20	Year-long Campus	0	40	(1) Set of exercises(2) Set of exercises		20 20	60	Closed	2					
5	Numerical Analysis (M231)	U20747	20	Year-long Campus	0	40	Commented printouts and outputs of programs written by students.			60	Closed	2					

5	Statistical Theory & Methods II (M241)	U20748	20	Year-long Campus	0	50	Set of exercises			50	Closed	1.5	
5	Operational Research (M251)	U20749	20	Year-long Campus	С	50	(1)Formulating and solving linear problem (2) Formulating and solving non-linear & dynamic problem		25 25	50	Closed	1.5	
5	Mathematics for Finance (M261)	U20740	20	Year-long Campus	С	50	portfolio of work to include implementation of numerical scheme			50	Closed	1.5	
5	Universe: Planetary Systems, Stars and Galaxies (M271)	U20509	20	Year-long Campus	0	100	 (1) Computer administered test (2) Computer administered test using simulation software (3) Planetarium/Observatoryvisits 	50 minutes 50 minutes 2/4 to be attended	50 50 Pass/Fail				
5	Financial Management	U20743	20	Year-long Campus	С	40	Problem Solving Exercises	1 hour	40	60	Closed	2	
6	Final Year Project (M301)	U20691	20	Year-long Campus	C/O	100	(1) dissertation(2) Presentation(3) Project plan	5000 words 10 minutes	90 10 Pass/Fail				
6	Undergraduate Ambassador (M302)	U20692	20	Year-long Campus	C/O	100	(1) Log Book(2) Report(3) Oral Presentation	4000 words	25 60 15				
6	Advancing Mathematics(M303)	U20723	20	Year-long Campus	0	100	 Portfolio of work Portfolio of work Portfolio of work 	4000 words	35 35 30				
6	History and Philosophy of Mathematics M304)	U20724	20	Year-long Campus	0	100	(1) Multiple choice in class test(2) Essay	1 hour 2000 words	50 50				
6	Partial Differential Equations and their Applications (M311)	U20725	20	Year-long Campus	с					100	Closed	3	
6	Advanced Analysis (M312)	U20726	20	Year-long Campus	0					100	Closed	3	
6	Abstract Algebra (M313)	U20727	20	Year-long Campus	0					100	Closed	3	
6	Geometry and Topology (M314)	U20728	20	Year-long Campus	0	40		Equivalent to 2000 words.	20 20	60	Closed	2	
6	Nonlinear Dynamics(M321)	U20685	20	Year-long Campus	0	100	(1) Exercises(2) Printout of Commented programme & explanations	Equivalent to approx. 4,000 words in total	30 30				

							(3) Printout of Commented programme & explanations		40				
6	Stochastic Processes (M322)	U20686	20	Year-long Campus	0	50	Set of exercises	Equivalent to approx. 2,500 words		50	Closed	1.5	
6	Statistics for Manufacturing, Business & Management (M341)	U20734	20	Year-long Campus	0	40	Set of exercises			60	Closed – but student may bring in 2 A4 sheets of notes	2	
6	Statistics Methods in Health Research & Social Science (M342)	U20732	20	Year-long Campus	0	40	Set of exercises			60	Closed – but student may bring in 2 A4 sheets of notes	2	
6	Planning, Scheduling and Supply Chain Management (M351)	U20687	20	Year-long Campus	С	50	(1)Set of 10 problems requiring essay type answers(2) Group work with role play on case studies leading to individually written report	 (1) 1 page A4 max for each question. (2) 1,500 words (approx.) 	25 25	50	Closed	2	
6	Advanced Decision Modelling (M352)	U20688	20	Year-long Campus	0	66	(1) Set of exercises(2) Set of exercises		33 33	34	Closed	1	
6	Modern Computational Methods for Operational Research and Logistics (M353)	U20689	20	Year-long Campus	0	100	 (1) Implementation & analysis using software plus written analysis (2) Simulation using software plus a written report 	Equivalent to 4,000 words in total	50 50				
6	Financial Derivative pricing (M361)	U20690	20	Year-long Campus	С	40	Portfolio of work including implementation of numerical schemes using spreadsheets/software			60	Closed	2	
6	Quantum Mechanics and Relativity (SEES620)	U20285	20	Year-long Campus	0	40	Essay	1,500 words.		60	Closed	2	
6	Modern Astrophysics (M371)	U20483	20	Year-long Campus	0	40	Essay	1,500 words.		60	Closed - but student may bring in 1 side of A4 handwritten notes	2	
6	Advanced Financial Management	U21295	20	Year-long Campus	0	30	 Seminar preparation & participation Stock Market trading assignment 	2,000 words	10 20	70	Closed	2	

Unit Learning Outcomes Map¹

UNITS*								LEARNING OUTCOMES																						
Level	Name	Code	Credit	Delivery	Core/ Option	A1	A2	A3	A4	A5	A6	A7	A8	B1	B2	В3	B4	B5	B6	C1	C2	C3	C4	C5	D1	D2	D3	D4	D5	D6
6	M311	U20725	20	Year long	С	Y	Y							Y	Υ		Y			Y	Y				Y		Y	Y	Y	
6	M301	U20691	20	Year long	C/O**	Y							Y	Y	Υ		Y	Y	Y						Υ			Y	Y	
6	M302	U20692	20	Year long	C/O**	Y							Y	Y				Y	Y						Υ			Y	Y	Y
6	M351	U20687	20	Year long	С	Y		Y			Y	Υ	Y	Y	Υ	Y	Y			Y	Υ				Υ		Y			
6	M361	U20690	20	Year long	С	Y		Y	Y	Y				Y	Y						Y		Y		Y		Y			
5	M211	U20743	20	Year long	С	Y	Y							Y	Υ		Υ					Y			Y		Y	Y	Y	
5	M251	U20749	20	Year long	С	Y	Y	Y			Y	Υ		Y	Υ	Y	Y			Y	Y				Y		Y	Y		
5	M261	U20740	20	Year long	С	Y		Y		Y		Υ		Y	Υ						Y				Y		Y	Y		
5	M201	U20742	20	Year long	С									Y				Y							Y				Y	Y
5	Financial Management		20	Year long	С					Y	Y	Y		Y											Y		Y			Y
4	M111	U20737	20	Year long	С	Y								Y	Y										Y		Y	Y		Y
4	M112	U20738	20	Year long	С	Y	Y							Y	Y										Y		Y	Y		Y
4	M113	U20739	20	Year long	С	Y								Y	Y										Y		Y	Y		
4	M121	U20735	20	Year long	С	Y		Y		Y				Y	Υ	Y	Y			Y	Y				Y		Y	Y	Y	
4	M131	U20741	20	Year long	С	Y	Y							Y		Y				Y					Y		Y	Y		
4	M141	U20736	20	Year long	С	Y		Y						Y	Y	Y	Y					Y	Y	Y	Y	Y	Y	Y	Y	Y

*Only core units are listed

**Either M301(project) or M302 (Undergraduate Ambassador) must be taken (or both)

Unit Learning Outcomes Map for BSc (Hons) Mathematics for Finance and Management

¹A = Knowledge and Understanding; B = Cognitive (Intellectual) Skills; C = Practical (Subject Specific) Skills; D = Transferable Skills