Programme Titles:

BSc (Hons) Mathematics with Finance – UCAS Code: G1N3

BSc (Hons) Mathematics with Finance with Placement Year – Code: G1NZ

BSc (Hons) Mathematics with Finance with International Study Year - Code: 1845U

BSc (Hons) Mathematics with Business – UCAS Code: G1N4

BSc (Hons) Mathematics with Business with Placement Year -Code: 1556U

BSc (Hons) Mathematics with Business with International Study Year - Code: 1844U

Notes

(i) These programme regulations should be read in conjunction with the University's Taught Programme Regulations.

(ii) All optional modules are offered subject to the constraints of the timetable and to any restrictions on the number of students who may be taught on a particular module. Not all modules may be offered in all years and they are listed subject to availability.

(iii) Unless otherwise stated under 'Type', modules are not core.

(iv) A compulsory module is a module which a student is required to study.

(v) A core module is a module which a student must pass, and in which a fail mark may neither be carried nor compensated; such modules are designated by the board of studies as essential for progression to a further stage of the programme or for study in a further module.

(vi) All modules are delivered in Linear mode unless stated otherwise as Block, eLearning or distance learning.

(vii) Students are not recruited to G1NZ/1556U. Rather a G1N3/G1N4 candidate may transfer to G1NZ/1556U by the end of week 5 of Semester 2 of Stage 2, subject to the agreement of the Degree Programme Director.

(viii) Programme transfers for Student Visa students may be restricted. Please refer to the Visa Team for advice.

1. Stage 1

(a) All candidates shall take the following compulsory modules:

Code	Descriptive Title	Total	Credits	Credits	Level	Туре	Subject
		Credits	Sem 1	Sem 2			
MAS1606	Introductory Algebra	20	20	0	4	Core	М
MSP1612	Introductory Calculus and	20	20	0	4	Core	М
	Differential Equations						
MSP1613	Multivariable Calculus	10	0	10	4	Core	М
MAS1614	Real Analysis	10	0	10	4	Core	М
MAS1616	Introduction to	20	0	20	4	Core	S
	Probability and Statistics						

(b) G1N3 candidates shall take the following compulsory modules:

Code	Descriptive Title	Total	Credits	Credits	Level	Туре	Subject
		Credits	Sem 1	Sem 2			
ACC1010	Introduction to Financial Accounting	20	10	10	4	Core	
ACC1011	Introduction to Management Accounting & Finance	20	10	10	4	Core	

(c) G1N4 candidates shall take the following compulsory modules:

Code	Descriptive Title	Total	Credits	Credits	Level	Туре	Subject
		Credits	Sem 1	Sem 2			
ACC1003	Introduction to Accounting & Finance	20	10	10	4		
BUS1001	Introduction to Management & Organisation	20	10	10	4	Core	

2. Stage 2

(a) G1N3 candidates shall take the following compulsory module:

Code	Descriptive Title	Total	Credits	Credits	Level	Туре	Subject
		Credits	Sem 1	Sem 2			
MAS2901	Statistical Inference	10	10	0	5		S
MAS2910	Regression	10	0	10	5		S

(b) G1N3 candidates shall select optional modules to a total credit value of 60; of those, at least 40 credits must be from the same block (either (i), block (ii) or block (iii)). G1N4 candidates shall select optional modules to a total credit value of 80; this must include 40 credits from either block (i), block (ii) or block (iii).

(i) Candidates shall select 0, 20 or 40 credits from the following list. If only 20 credits are chosen, it must be MAS2701 and MAS2703. If 40 credits are chosen, they must include MAS2701 and MAS2703.

Code	Descriptive Title	Total	Credits	Credits	Level	Туре	Subject
		Credits	Sem 1	Sem 2			
MAS2701	Linear Algebra	10	10	0	5		М
MAS2702	Complex Analysis	10	10	0	5		М
MAS2703	Groups and Rings	10	0	10	5		М
MAS2713	Curves and Surfaces	10	0	10	6		М
MAS2714	Coding Theory	10	0	10	6		М

(ii) Candidates shall select 0, 20 or 40 credits from the following list. If only 20 credits are chosen, it must be MSP2801 and MSP2802. If 40 credits are chosen, they must include MSP2801 and MSP2802.

Code	Descriptive Title	Total	Credits	Credits	Level	Туре	Subject
		Credits	Sem 1	Sem 2			
MAS2806	Numerical Methods with Python	10	0	10	5		М
MSP2020	Principles of Quantum Mechanics	10	0	10	5		М
MSP2801	Vector Calculus	10	10	0	5		М
MSP2802	Differential Equations, Transforms and Waves	10	10	0	5		Μ
MSP2803	Fluid Dynamics I	10	0	10	5		М
MSP2815	Mathematical Biology	10	0	10	5		М

(iii) G1N3 candidates shall select 0 or 20 credits from the following list. G1N4 candidates shall select 0, 20 or 40 credits from the following list. If only 20 credits are chosen, it must be MAS2901 and MAS2910 (note: MAS2901 and MAS2910 are compulsory for G1N3 candidates – see 2 (a) above). If 40 credits are chosen, they must include MAS2901 and MAS2910.

Code	Descriptive Title	Total	Credits	Credits	Level	Туре	Subject
		Credits	Sem 1	Sem 2			
MAS2901	Statistical Inference	10	10	0	5		S
MAS2909	Probability	10	10	0	5		S
MAS2907	Stochastic Processes	10	0	10	5		S
MAS2908	Data Visualization	10	0	10	5		S
MAS2910	Regression	10	0	10	5		S
DSC2001*	Frontiers in Data	10	0	10	5		S
	Science A						

(*) Note: Approval of the Degree Programme Director must be given to select this module. There are limited places on this module and therefore there is no guarantee that students will be accepted.

(c) G1N3 candidates shall take the following compulsory modules:

Code	Descriptive Title	Total	Credits	Credits	Level	Туре	Subject
		Credits	Sem 1	Sem 2			
ACC2000	Interpreting Company Accounts	20	10	10	5		
ACC2007	Responsible Corporate Finance	20	10	10	5	Core	

(d) G1N4 candidates shall take the following compulsory modules:

Code	Descriptive Title	Total	Credits	Credits	Level	Туре	Subject
		Credits	Sem 1	Sem 2			
ACC2000	Interpreting Company Accounts	20	10	10	5		
BUS2000	Human Resource Management	20	10	10	5		

3. Year 3 – Intercalating Year

(a) <u>Career Placement Year (G1NZ/ 1556U only)</u>

On completion of Stage 2 and before entering Stage 3, candidates may as part of their studies for the degree spend a year in a placement with an approved organisation. Permission to undertake a placement is subject to the approval of the Degree Programme Director. Students who are required to re-sit their Stage 2 assessment must delay the start of their placement until they have done so. Students who fail Stage 2 may not complete a placement year.

Code	Descriptive Title	Total Credits	Credits Sem 1	Credits Sem 2	Level	Туре	Subject
NCL3000	Careers Service Placement Year Module	120	60	60	6		

(b) International Study Year (1844U/1845U Only)

On completion of Stage 2 and before entering Stage 3, candidates may spend the equivalent of one academic year abroad at an appropriate exchange partner institution. Permission to undertake a year abroad is subject to the approval of the Degree Programme Director. Students who are required to re-sit their Stage 2 assessment must delay the start of their year abroad until they have done so. Students who fail Stage 2 may not complete a year abroad.

Code	Descriptive title	Total	Credits	Credits	Level	Туре	Subject
		Credits	Sem 1	Sem 2			
ISY3000	International Study Year Module	120	60	60	6		

4. Stage 3

(a) G1N3 candidates shall take the following compulsory module:

Code	Descriptive Title	Total	Credits	Credits	Level	Туре	Subject
		Credits	Sem 1	Sem 2			
MAS3904	Stochastic Financial Modelling	10	0	10	6		S

(b) Candidates shall select 70 credits of optional modules from the following list (excluding MAS3904).

Code	Descriptive Title	Total Credits	Credits Sem 1	Credits Sem 2	Level	Туре	Subject
MAS2713	Curves and Surfaces	10	0	10	6		М
MAS2714	Coding Theory	10	0	10	6		М
MAS3701	Group Theory	10	10	0	6		М
MAS3702	Linear Analysis	10	0	10	6		М
MAS3705	Matrix Analysis	10	10	0	6		М
MAS3706	Metric Spaces and Topology	10	10	0	6		Μ
MAS3707	Number Theory and Cryptography	20	10	10	6		М
MAS3716	Measure Theory	10	10	0	6		М
MAS3904	Stochastic Financial Modelling	10	0	10	6		S
MAS3908	Experimental Design	10	0	10	6		S
MAS3919	Foundations of Machine Learning	10	0	10	6		S
MAS3921	Extreme Value Theory	10	0	10	6		S
MAS3923	Time series	10	0	10	6		S
MAS3924	Survival Analysis	10	0	10	6		S
MAS3925	Statistical Genetics	10	0	10	6		S
MAS3927	Mathematical Statistics	10	10	0	6		S
MAS3928	Statistical Modelling	10	10	0	6		S
MAS3929	Bayesian Statistics and Decision Theory	10	10	0	6		S
MSP2020	Principles of Quantum Mechanics	10	0	10	5		М
MSP2815	Mathematical Biology	10	0	10	5		М
MSP3044	Quantum Information	10	10	0	6		М
MSP3801	Methods for Differential Equations	10	10	0	6		М
MSP3803	Fluid Dynamics II	10	10	0	6		М
MSP3804	Relativity and Fundamental Particles	10	10	0	6		Μ

MSP3808	Hydrodynamic and Climate Instabilities	10	10	0	6	М
MSP3809	Variational Methods & Lagrangian Dynamics	10	0	10	6	Μ

Note: With the permission of the Degree Programme Director, candidates may replace up to 20 credits of the optional modules above with alternative optional Stage 3 MAS modules in September, if the timetable allows (and if they have taken the relevant pre-requisites).

(ii) Optional modules will not necessarily be available in all combinations. In particular, we anticipate that only one module can be chosen from each of the following pairs of modules:
MAS3716 & MAS3921;
MAS3702 & MAS3908;
MSP2020 & MAS3925.

(c) G1N3 candidates shall take the following compulsory modules:

Code	Descriptive Title	Total	Credits	Credits	Level	Туре	Subject
		Credits	Sem 1	Sem 2			
ACC3000	Case Studies in Finance, Accounting & Business	20	10	10	6		
ACC3006	International Financial Management	20	10	10	6		

(d) G1N4 candidates shall take the following compulsory modules:

Code	Descriptive Title	Total	Credits	Credits	Level	Туре	Subject
		Credits	Sem 1	Sem 2			
ACC3000	Case Studies in Finance,	20	10	10	6		
	Accounting & Business						
EIN3000	Enterprise & Entrepreneurship	20	10	10	6		
	with Lean Innovation						

5. Assessment methods

Details of the assessment pattern for each module are explained in the module outline.

6. Degree classification

Candidates will be assessed for degree classification on the basis of all the modules taken at Stages 2 and 3 with the weighting of the Stages being 1:2 for Stage 2 and Stage 3 respectively. The Placement Year will not be used in the classification of G1NZ/ 1556U candidates.