Programme Regulations: 2025/26

Programme Titles:
Degree of Bachelor of Science with Honours in Mathematics and Economics - UCAS Code: GL11
Degree of Bachelor of Science with Honours in Mathematics and Economics with Placement Year - Code: 1138U
Degree of Bachelor of Science with Honours Mathematics and Economics with International Study Year: Code 1802U
Degree of Bachelor of Science with Honours in Mathematics and Accounting - UCAS Code: NG41
Degree of Bachelor of Science with Honours in Mathematics and Accounting with Placement Year - Code: 1139U

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 not be 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 1138U/1139U. Rather a GL11/NG41 candidate may transfer to 1138U/1139U 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 Sem 1	Credits Sem 2	Level	Type	Subject
MAS1606	Introductory Algebra	20	20	0	4	Core	M
MSP1612	Introductory Calculus and Differential Equations	20	20	0	4	Core	M
MSP1613	Multivariable Calculus	10	0	10	4	Core	M
MAS1614	Real Analysis	10	0	10	4	Core	M
MAS1616	Introduction to Probability and Statistics	20	0	20	4	Core	S

(b)   GL11 candidates shall take the following compulsory modules:

Code	Descriptive Title	Total Credits	Credits Sem 1	Credits Sem 2	Level	Type	Subject
ECO1100	Economic Analysis	30	15	15	4	Core	E
ECO1118	Economic Applications	10	5	5	4		E

(c)   NG41 candidates shall take the following compulsory modules:

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

2.   Stage 2

(a)   All candidates shall select optional modules to a total credit value of 60. This must include 40 credits from either block (i) (the Pure Mathematics Pathway), block (ii) (the Applied Mathematics Pathway) or block (iii) (the Statistics Pathway).

(i)   Candidates may 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 Sem 1	Credits Sem 2	Level	Type	Subject
MAS2701	Linear Algebra	10	10	0	5		M
MAS2702	Complex Analysis	10	10	0	5		M
MAS2703	Groups and Rings	10	0	10	5		M
MAS2713	Curves and Surfaces	10	0	10	6		M
MAS2714	Coding Theory	10	0	10	6		M

(ii)   Candidates may 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 Sem 1	Credits Sem 2	Level	Type	Subject
MSP2020	Principles of Quantum Mechanics	10	0	10	5		M
MSP2801	Vector Calculus	10	10	0	5		M
MSP2802	Differential Equations, Transforms and Waves	10	10	0	5		M
MSP2803	Fluid Dynamics I	10	0	10	5		M
MAS2806	Numerical Methods with Python	10	0	10	5		M

(iii)   Candidates may select 0, 20 or 40 credits from the following list. If only 20 credits are chosen, it must be MAS2901 and MAS2910. If 40 credits are chosen, they must include MAS2901 and MAS2910.

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

(*) 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.

(b)   GL11 candidates shall take the following compulsory modules:

Code	Descriptive Title	Total Credits	Credits Sem 1	Credits Sem 2	Level	Type	Subject
ECO2101	Microeconomic Analysis	30	15	15	5	Core	
ECO2102	Macroeconomic Analysis	30	15	15	5	Core	

(c)   NG41 candidates shall taking the following compulsory modules:

Code	Descriptive Title	Total Credits	Credits Sem 1	Credits Sem 2	Level	Type	Subject
ACC2003	Financial Control	20	10	10	5	Core	
ACC2005	Intermediate Financial Accounting	20	10	10	5	Core	

(d)   NG41 candidates shall take one further module (20 credits) from the following list:

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

Note: ACC2007 is a pre-requisite for ACC3006 in Stage 3.

3.   Intercalating Year

(ii)   Career Placement (1138U 1139U)
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 year 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
NCL3000	Careers Service Placement Year Module	120	60	60	6

(ii)   International study Year (1802U)

On completion of Stage 2 and before entering Stage 3, candidates may as part of their studies for the degree spend a 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 placement until they have done so. Students who fail Stage 2 may not complete a year abroad.

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Credits Sem 3*	*Level*	*Type*	*Mode*
ISY3000	*International Study Year*	*120*	*60*	*60*	*0*	*6*		

3.   Stage 3

(a)   Pure Mathematics Pathway

(i)   Candidate studying the Pure Mathematics Pathway shall take the following compulsory module:

Code	Descriptive Title	Total Credits	Credits Sem 1	Credits Sem 2	Level	Type	Subject
MAS3707	Number Theory and Cryptography	20	10	10	6		

(ii)   Candidates studying the Pure Mathematics Pathway shall select 40 additional credits from the following list:

Code	Descriptive Title	Total Credits	Credits Sem 1	Credits Sem 2	Level	Type	Subject
MAS2713	Curves and Surfaces	10	0	10	6		M
MAS2714	Coding Theory	10	0	10	6		M
MAS3701	Group Theory	10	10	0	6		M
MAS3702	Linear Analysis	10	0	10	6		M
MAS3705	Matrix Analysis	10	10	0	6		M
MAS3706	Metric Spaces and Topology	10	0	10	6		M
MAS3716	Measure Theory	10	0	10	6		M

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).

(b)   Applied Mathematics Pathway

(i)   Candidates studying the Applied Mathematics Pathway shall take the following compulsory modules:

Code	Descriptive Title	Total Credits	Credits Sem 1	Credits Sem 2	Level	Type	Subject
MSP2815	Mathematical Biology	10	0	10	5		M
MSP3801	Methods for Differential Equations	10	10	0	6		M

(ii) Candidates studying the Applied Mathematics Pathway shall select 40 additional credits from the following list:

Code	Descriptive Title	Total Credits	Credits Sem 1	Credits Sem 2	Level	Type	Subject
MSP3044	Quantum Information	10	10	0	6		M
MSP3803	Fluid Dynamics II	10	10	0	6		M
MSP3804	Relativity and Fundamental Particles	10	10	0	6		M
MSP3808	Hydrodynamic and Climate Instabilities	10	10	0	6		M
MSP3809	Variational Methods & Lagrangian Dynamics	10	0	10	6		M

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).

(c) <u>Statistics Pathway</u>

(i) Candidates studying the Statistics Pathway shall take the following compulsory modules:

Code	Descriptive Title	Total Credits	Credits Sem 1	Credits Sem 2	Level	Type	Subject
MAS3923	Time series	10	0	10	6		S
MAS3928	Statistical Modelling	10	10	0	6		S

(ii) Candidates studying the Statistics Pathway shall select 40 additional credits from the following list:

Code	Descriptive Title	Total Credits	Credits Sem 1	Credits Sem 2	Level	Type	Subject
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
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

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).

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.

(d) <u>GL11/1138U Candidates</u>

(i) GL11 /1138U candidates shall take the following compulsory module:

Code	Descriptive Title	Total Credits	Credits Sem 1	Credits Sem 2	Level	Type	Subject
ECO3001	Advanced Microeconomics	20	10	10	6		E

(ii) GL11 candidates shall select 40 credits of optional modules from the following list:

Code	Descriptive Title	Total Credits	Credits Sem 1	Credits Sem 2	Level	Type	Subject
ECO3002	Advanced Macroeconomics	20	10	10	6		E
ECO3005	Behavioural Economics and Experimental methods	20	10	10	6		E
ECO3010	Monetary Economics	10	10	0	6		E
ECO3014	Public Economics	20	20	0	6		E
ECO3018	Financial Economics	10	0	10	6		E
ECO3021	Economics of Risk and Uncertainty	10	10	0	6		E
ECO3022	Health Economics	10	0	10	6		E
ECO3026	Industrial Economics and Policy	20	10	10	6		E
ECO3032	Game Theory	10	0	10	6		E
ECO3033	Development Economics	20	10	10	6		E
ECO3035	Happiness Economics	10	0	10	6		E
ECO3066	Environmental Economics	10	10	0	6		E

(e) NG41/1139U Candidates

(i) NG41 candidates shall take the following compulsory modules:

Code	Descriptive Title	Total Credits	Credits Sem 1	Credits Sem 2	Level	Type	Subject
ACC3001	Advanced Financial Accounting and Reporting	20	10	10	6		
ACC3002	Management Accounting	20	10	10	6		

(ii) NG41 candidates shall take one further module (20 credits) from the following list:

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

(e) With the approval of the Degree Programme Director, alternative optional modules to those listed above may be selected with a total value of not more than 20 credits. In particular, students may select:

Code	Descriptive Title	Total Credits	Credits Sem 1	Credits Sem 2	Level	Type	Subject
NCL3007	Career Development for Final Year Students	20	10	10	6		

Note: There are limited places on this module and therefore there is no guarantee that students will be accepted.

4. Assessment methods

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

5. 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 1138U/1139U candidates.