

## Programme Regulations: 2026/27

### Programme Titles:

**BSc (Hons) Computing and Mathematics – UCAS code: GG40**

**BSc (Hons) Computing and Mathematics with Placement Year – code: 1985U**

**BSc (Hons) Computing and Mathematics with International Study Year – code: 1986U**

### 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) *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	Mode
CSC1034	Programming Portfolio 1	30	30		4		
MAS1606	Introductory Algebra	20	20		4		
MAS1614	Real Analysis	10		10	4		
MAS1615	Introductory Calculus	10	10		4		
MAS1616	Introduction to Probability and Statistics	20		20	4		
MAS1702	Number Systems	10		10	4		
MSP1613	Multivariable Calculus	10		10	4		
MSP1804	Dynamics	10		10	4		

On successful completion of stage 1, and with the approval of the Degree Programme Director, students would normally be permitted to transfer to stage 2 of the BSc Mathematics programme.

### 2. Stage 2

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

Code	Descriptive title	Total Credits	Credits Sem 1	Credits Sem 2	Level	Type	Mode
CSC1033	Foundations of Data Science	20	10	10	4		
CSC2031	Security Programming	20	20		5		
CSC2032	Algorithm Design and Analysis	10	10		5		
CSC2033	Software Engineering Team Project	30		30	5		
MAS2701	Linear Algebra	10	10		5		

MAS2703	Groups and Rings	10		10	5		
MSP2020	Principles of Quantum Mechanics	10		10	5		
MSP2802	Differential Equations, Transforms and Waves	10	10		5		

On successful completion of stage 2, and with the approval of the Degree Programme Director, students would normally be permitted to transfer to stage 3 of the BSc Computer Science programme.

### 3. Year 3 (Intercalating Year)

#### (i) Career Placement

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.

All candidates shall take one of the following modules:

<i>Code</i>	<i>Descriptive title</i>	<i>Total Credits</i>	<i>Credits Sem 1</i>	<i>Credits Sem 2</i>	<i>Level</i>	<i>Type</i>	<i>Mode</i>
ICM0043	Intercalating Module for Computing Science Programmes	120	60	60	6		
NCL3000	Career Service Placement Year Module	120	60	60	6		

#### (ii) International Study Year

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.

<i>Code</i>	<i>Descriptive title</i>	<i>Total Credits</i>	<i>Credits Sem 1</i>	<i>Credits Sem 2</i>	<i>Level</i>	<i>Type</i>	<i>Mode</i>
ISY3000	International Study Year	120	60	60	6		

### 4. Stage 3

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

<i>Code</i>	<i>Descriptive title</i>	<i>Total Credits</i>	<i>Credits Sem 1</i>	<i>Credits Sem 2</i>	<i>Level</i>	<i>Type</i>	<i>Mode</i>
CSC3033	Inter-disciplinary Group Project	20		20	6		

(b) All candidates shall take 100 credits of optional modules, including either one of the curated pathways, or selected from the list below:

Artificial Intelligence (AI) pathway below and 30 credits from the general list of options:

<i>Code</i>	<i>Descriptive title</i>	<i>Total Credits</i>	<i>Credits Sem 1</i>	<i>Credits Sem 2</i>	<i>Level</i>	<i>Type</i>	<i>Mode</i>
CSC3432	Biomedical Data Analytics and AI	20	20		6		
CSC3831	Computer Vision and AI	20	20		6		
CSC3834	Introduction to AI	20	20		6		

MAS3705	Matrix Analysis	10	10		6		
---------	-----------------	----	----	--	---	--	--

**OR**

Quantum pathway below, and 70 credits from the general list of options:

<i>Code</i>	<i>Descriptive title</i>	<i>Total Credits</i>	<i>Credits Sem 1</i>	<i>Credits Sem 2</i>	<i>Level</i>	<i>Type</i>	<i>Mode</i>
CSC3133	Quantum Algorithms	10		10	6		
MSP3020	Advanced Quantum Mechanics	10	10		6		
MSP3044	Quantum Information	10	10		6		

OR 100 credits of modules from the following list:

<i>Code</i>	<i>Descriptive title</i>	<i>Total Credits</i>	<i>Credits Sem 1</i>	<i>Credits Sem 2</i>	<i>Level</i>	<i>Type</i>	<i>Mode</i>
CSC3133	Quantum Algorithms	10		10	6		
CSC3232	Gaming Technologies and Simulations	20	20		6		
CSC3432	Biomedical Data Analytics and AI	20	20		6		
CSC3634	Fault Tolerant and Cyber-Physical Systems	20	20		6		
CSC3733	Computing and Mathematics Education	20	10	10	6		
CSC3831	Computer Vision and AI	20	20		6		
CSC3834	Introduction to AI	20	20		6		
MAS2714	Coding Theory	10		10	6		
MSP2815	Mathematical Biology	10		10	6		
MAS3701	Group Theory	10	10		6		
MAS3702	Linear Analysis	10		10	6		
MAS3705	Matrix Analysis	10	10		6		
MAS3707	Number Theory and Cryptography	20	10	10	6		
MSP3020	Advanced Quantum Mechanics	10	10		6		
MSP3044	Quantum Information	10	10		6		
MSP3809	Variational Methods and Lagrangian Dynamics	10		10	6		

With the approval of the Degree Programme Director alternative optional modules to those listed above may be selected.

## **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.