These programme regulations should be read in conjunction with the University's core regulations for undergraduate programmes, and the marking and classification conventions for undergraduate programmes.

BSc Mathematics (G100), BSc Mathematics with Placement (G108), BSc Mathematics with Year Abroad (G109)

1. This programme is available at Durham City, in a full-time mode of study.

Level 1 (Certificate)

2. Candidates shall study and be assessed in the following modules:

		Credit value
Calculus I #	MATH1061	20
Linear Algebra I #	MATH1071	20
Analysis I #	MATH1051	20
Programming I	MATH1587	10
Dynamics I	MATH1607	10
Probability I	MATH1597	10
Statistics I	MATH1617	10

3. Candidates shall also study and be assessed in modules to the value of 20 credits offered by any Boards of Studies (including up to 20 credits of appropriate language modules offered by the University's Centre for Foreign Language Study).

Level 2 (Diploma)

4. Candidates shall study and be assessed in the following modules:

		Credit value
Complex Analysis II	MATH2011	20
Analysis in Many Variables II	MATH2031	20

5. Candidates shall also study and be assessed in modules to the value of 80 credits from List A:

List A:		**Credit value**
Algebra II	MATH2581	20
Data Science and Statistical Computing II	MATH2687	10
Elementary Number Theory II	MATH2617	10
Geometric Topology II	MATH2627	10
Markov Chains II	MATH2707	10
Mathematical Physics II	MATH2071	20
Mathematical Modelling II	MATH2637	10
Numerical Analysis II	MATH2051	20
Probability II	MATH2647	10
Special Relativity and Electromagnetism II	MATH2657	10
Statistical Inference II	MATH2711	20
Statistical Modelling II	MATH2697	10

Year 3 (Placement Year)

6. During the third year candidates shall undertake an approved placement in industry, or in an institution or organisation undertaking research, for 40 weeks.

7. This programme is only available to students admitted initially to the BSc Mathematics (G100) programme (or equivalent). Candidates wishing to transfer to BSc Mathematics with placement (G108) must:

   a. successfully complete Level 1 of the BSc Mathematics (G100) programme (or equivalent) with an average mark of 55%, and be eligible to progress to Level 2 of the honours programme;

b. before the beginning of the first term of Level 2 study, have applied to the Board of Studies in Mathematical Sciences to be admitted to the BSc Mathematics with placement (G108) and have had their application provisionally approved by that Board.

Year Abroad (Year 3)

8. This programme is only available to students admitted initially to the BSc Mathematics (G100) programme (or equivalent). Candidates wishing to transfer to BSc Mathematics with year abroad (G109) must:

   a. successfully complete Level 1 of the BSc Mathematics (G100) programme (or equivalent) with an average mark of 55%, and be eligible to progress to Level 2 of the honours programme;

   b. before the beginning of the first term of Level 2 study, have applied to the Board of Studies in Mathematical Sciences to be admitted to the BSc Mathematics with year abroad (G109) and have had their application provisionally approved by that Board;

   c. during the first term of Level 2 study, have their application formally approved by that Board upon successful completion of the Mathematical Sciences preparatory placement course.

   d. Where tuition at the Overseas Partner Institution is in a foreign language, candidates must have taken at least 20 credits in an appropriate language module at level 1.

Level 3 (Degree)

9. Candidates shall study and be assessed in the following module to the value of 40 credits:

		Credit value
Project III	MATH3382	40

10. Candidates shall study and be assessed in **EITHER** modules to the value of 80 credits from List B **OR** modules to the value of 60 credits from List B and one open 20 credit module chosen from those offered by any other Board of Studies (including appropriate credit-bearing language modules offered by the University's Centre for Foreign Language Study):

List B1 (2021-2022):		**Credit value**
Bayesian Statistics III	MATH3341	20
Statistical Methods III	MATH3051	20

List B2:		**Credit value**
Analysis III	MATH3011	20
Cryptography and Codes III	MATH3401	20
Decision Theory III	MATH3071	20
Differential Geometry III	MATH3021	20
Dynamical Systems III	MATH3091	20
Fluid Mechanics III	MATH3101	20
Galois Theory III	MATH3041	20
Geometry III	MATH3201	20
Geometry of Mathematical Physics III	MATH3471	20
Mathematical Biology III	MATH3171	20
Mathematical Finance III	MATH3301	20
Number Theory III	MATH3031	20
Operations Research III	MATH3141	20
Partial Differential Equations III	MATH3291	20
Public Engagement in Mathematical Sciences	MATH3461	20
Quantum Computing III	MATH3391	20
Quantum Mechanics III	MATH3111	20
Solitons III	MATH3231	20
Stochastic Processes III	MATH3251	20
Topology III	MATH3281	20

List B3 (2022-2023 onwards):		**Credit value**
Advanced Statistical Modelling	MATH3411	20
Bayesian Computation and Modelling	MATH3421	20
Machine Learning and Neural Networks	MATH3431	20

List B1 will not be offered again

11. Modules marked with a # must be passed at 40% or above in order to progress to the next Level of the Ordinary degree.

Year Abroad

12. Students admitted to the BSc Mathematics (G100) are able to apply to transfer to the BSc Mathematics (with Year Abroad) programme (G109). Students undertaking the BSc Mathematics (with Year Abroad) programme (G109) will undertake an approved exchange in an overseas university taking a course of study chosen in consultation with the programme director and the host institution.
13. Students who the Board of Examiners for Mathematics deem to have made satisfactory progress on the year abroad will continue to Level 3 of the BSc Mathematics (with Year Abroad) (G109). Students who have not made satisfactory progress on the year abroad will not be permitted to continue on the BSc Mathematics (with Year Abroad) (G109) programme, but must instead proceed to Level 3 of the BSc Mathematics (G100) programme.

Placement

14. During the third year candidates shall undertake an approved placement in industry, or in an institution or organisation undertaking research, for 40 weeks.
15. Students who the Board of Examiners for Mathematical Sciences deem to have made satisfactory progress on the placement year will continue to Level 3 of the BSc Mathematics (with Placement) (G108). Students who have not made satisfactory progress on the placement will not be permitted to continue on the BSc Mathematics (with Placement) (G108) programme, but must instead proceed to Level 3 of the BSc Mathematics (G100) programme.