

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 and Statistics (G111)

BSc Mathematics and Statistics with Year Abroad (G112)

BSc Mathematics and Statistics with Placement (G113)

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
Analysis I #	MATH1051	20
Calculus I (Maths Hons) #	MATH1081	20
Linear Algebra I (Maths Hons) #	MATH1091	20
Dynamics I	MATH1607	10
Probability I #	MATH1597	10
Programming I	MATH1587	10
Statistics I #	MATH1617	10

3. Candidates shall also study and be assessed in EITHER the module

		Credit value
Discrete Mathematics	MATH1031	20

OR module(s) to the value of 20 credits offered by any other 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
Analysis in Many Variables II	MATH2031	20
Statistical Inference #	MATH2711	20
Data Science and Statistical Computing	MATH2687	10
Statistical Modelling	MATH2697	10

5. Candidates shall also study and be assessed in modules to the value of 60 credits from List A:

List A:		Credit value
Algebra II	MATH2581	20
Complex Analysis II	MATH2011	20
Mathematical Physics II	MATH2071	20
Numerical Analysis II	MATH2051	20
Elementary Number Theory II	MATH2617	10
Markov Chains	MATH2707	10
Mathematical Modelling II	MATH2637	10
Probability II	MATH2647	10
Special Relativity and Electromagnetism II	MATH2657	10
Topology II	MATH2727	10

Year Abroad (Year 3)

6. This programme is only available to students admitted initially to the BSc Mathematics and Statistics (G111) programme (or equivalent). Candidates wishing to transfer to BSc Mathematics and Statistics with year abroad (G112) must:

- a. successfully complete Level 1 of the BSc Mathematics and Statistics (G111) programme (or equivalent) with an average mark of 55%, and be eligible to progress to Level 2 of the programme;
- b. during Level 2 study, have applied to the Board of Studies in Mathematical Sciences to be admitted to the BSc Mathematics and Statistics with year abroad (G112) and have had their application approved by that Board;
- c. secure an exchange opportunity with an approved international partner institution of the University;
- d. successfully complete Level 2 of their existing programme (G111 or equivalent) so as to be eligible to progress to Level 3;
- e. 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.

Placement (Year 3)

7. This programme is only available to students admitted initially to the BSc Mathematics and Statistics (G111) programme (or equivalent). Candidates wishing to transfer to BSc Mathematics and Statistics with Placement (G113) must:
 - a. successfully complete Level 1 of the BSc Mathematics and Statistics (G111) programme (or equivalent) with an average mark of 55%, and be eligible to progress to Level 2 of the programme;
 - b. during Level 2 study, have applied to the Board of Studies in Mathematical Sciences to be admitted to the BSc Mathematics and Statistics with Placement (G113) and have had their application approved by that Board;
 - c. secure an exchange opportunity with an approved international partner institution of the University;
 - d. successfully complete Level 2 of their existing programme (G111 or equivalent) so as to be eligible to progress to Level 3.
8. During the third year candidates shall undertake an approved placement in industry, or in an institution or organisation undertaking research, for 40 weeks.

Level 3 (Degree)

9. Candidates shall study and be assessed in one of the following modules:

		Credit value
Project III	MATH3382	40
Internship Project	MATH3452	40

10. Candidates shall also study and be assessed in modules to the value of at least 40 credits from Lists B and C, where at least 20 credits are taken from List B:

List B:		Credit value
Advanced Statistical Modelling	MATH3411	20
Bayesian Computation and Modelling	MATH3421	20

List C:		Credit value
Decision Theory	MATH3071	20
Machine Learning and Neural Networks	MATH3431	20
Mathematical Finance	MATH3301	20
Stochastic Processes	MATH3251	20

11. Candidates shall also study and be assessed to the value of at most 40 credits **EITHER** from List D, which is guaranteed to be timetable compatible with lists B and C:

List D:		Credit value
Analysis III	MATH3011	20
Cryptography and Codes III	MATH3401	20
Decision Theory III	MATH3071	20
Mathematical Biology III	MATH3171	20
Mathematics into Schools	MATH3481	20
Number Theory III	MATH3031	20
Partial Differential Equations III	MATH3291	20
Advanced Statistical Modelling III	MATH3411	20
Bayesian Computation and Modelling III	MATH3421	20
Operations Research III	MATH3141	20
Fluid Mechanics III	MATH3101	20
Machine Learning and Neural Networks III	MATH3431	20
Stochastic Processes III	MATH3251	20
Mathematical Finance III	MATH3301	20

OR, subject to timetable compatibility, may choose from any modules offered at Level 3 by the Department of Mathematical Sciences, and up to 20 credits of open modules 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).

Year Abroad

- Students admitted to the BSc Mathematics and Statistics (G111) are able to apply to transfer to the BSc Mathematics and Statistics with Year Abroad programme (G112). Students undertaking the BSc Mathematics and Statistics with Year Abroad programme (G112) will undertake an approved year abroad chosen in consultation with the programme director and the host.
- Students who the Board of Examiners for Mathematics deem to have made satisfactory progress on the placement year will continue to Level 3 of the BSc Mathematics and Statistics with Year Abroad (G112). Students who have not made satisfactory progress on the year abroad will not be permitted to continue on the BSc Mathematics and Statistics with Year Abroad (G112) programme, but must instead proceed to Level 3 of the BSc Mathematics and Statistics (G111) programme.

Placement

- Students admitted to the BSc Mathematics and Statistics (G111) are able to apply to transfer to the BSc Mathematics and Statistics with Placement programme (G113). Students undertaking the BSc Mathematics and Statistics with Placement programme (G113) will undertake an approved placement chosen in consultation with the programme director and the host.
- Students who the Board of Examiners for Mathematics deem to have made satisfactory progress on the placement year will continue to Level 3 of the BSc Mathematics and Statistics with Placement (G113). Students who have not made satisfactory progress on the placement will not be permitted to continue on the BSc Mathematics and Statistics with Placement (G113) programme, but must instead proceed to Level 3 of the BSc Mathematics and Statistics (G111) programme.

Assessment, progression and award

- Modules marked with the # symbol must be passed at 40% or above in order to progress to the next level of study.