

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 (European Studies) (G104) [Last intake in October 2016]

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 from those offered by other boards of studies, of which at least 20 credits must be an appropriate language module. The language requirement does not apply to students spending the year abroad at Trinity College, Dublin.

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 20 or 40 credits from List A1:

List A1:

| | | Credit value |
|-------------------------|--------------------------|---------------------|
| Statistical Concepts II | MATH2041 | 20 |
| Numerical Analysis II | MATH2051 | 20 |

6. Candidates shall also study and be assessed in modules to the value of 40 or 60 credits from List A2:

List A2:

| | | Credit value |
|--------------------------------------------|--------------------------|---------------------|
| Algebra II | MATH2581 | 20 |
| Monte Carlo II | MATH2667 | 10 |
| Elementary Number Theory II | MATH2617 | 10 |
| Geometric Topology II | MATH2627 | 10 |
| Mathematical Physics II | MATH2071 | 20 |
| Mathematical Modelling II | MATH2637 | 10 |
| Probability II | MATH2647 | 10 |
| Special Relativity and Electromagnetism II | MATH2657 | 10 |

Year 3 (Year Abroad)

7. During the third year students must study and be assessed in a mathematics programme (together, possibly, with other topics) in a European university under the Socrates-ERASMUS programme.

Level 3 (Degree)

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

| | | Credit value |
|-------------|--------------------------|---------------------|
| Project III | MATH3382 | 40 |

9. 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 B2 (2018-2019): | | Credit value |
|--------------------------------------|--------------------------|---------------------|
| Numerical Differential Equations III | MATH3081 | 20 |
| Geometry III | MATH3201 | 20 |
| Probability III | MATH3211 | 20 |
| Statistical Mechanics III | MATH3351 | 20 |
| Topics in Statistics III | MATH3361 | 20 |

| List B1 (2019-2020): | | Credit value |
|-----------------------------|--------------------------|---------------------|
| Analysis III | MATH3011 | 20 |
| Bayesian Statistics III | MATH3341 | 20 |
| Continuum Mechanics III | MATH3101 | 20 |
| Representation Theory III | MATH3371 | 20 |
| Solitons III | MATH3231 | 20 |
| Stochastic Processes III | MATH3251 | 20 |

| List B3: | | Credit value |
|------------------------------------|--------------------------|---------------------|
| Cryptography and Codes III | MATH3401 | 20 |
| Decision Theory III | MATH3071 | 20 |
| Differential Geometry III | MATH3021 | 20 |
| Dynamical Systems III | MATH3091 | 20 |
| Galois Theory III | MATH3041 | 20 |
| Mathematical Biology III | MATH3171 | 20 |
| Mathematical Finance III | MATH3371 | 20 |
| Mathematics Teaching III | MATH3121 | 20 |
| Number Theory III | MATH3031 | 20 |
| Operations Research III | MATH3141 | 20 |
| Partial Differential Equations III | MATH3291 | 20 |
| Quantum Information III | MATH3391 | 20 |
| Quantum Mechanics III | MATH3111 | 20 |
| Statistical Methods III | MATH3051 | 20 |
| Topology III | MATH3281 | 20 |

Lists B1 and B2 will be offered in alternate years, List B3 will run in both years.

Assessment, progression and award

10. Modules marked with a # must be passed at 40% or above in order to progress to the Ordinary degree at the next Level.
11. The availability of this degree is dependent on the University receiving funding under the EU Socrates-ERASMUS programme.