

These programme regulations should be read in conjunction with the University's [core regulations for postgraduate programmes](#), and the [marking and classification conventions for postgraduate programmes](#).

## MSc Mathematical Sciences (G1K509)

1. Location: Durham City
2. Duration: 12 months (full-time)

### Programme structure

3. Candidates shall study and be assessed in EITHER modules to the value of 120 credits from List 2 OR modules to the value of 100 credits from List 2 and one module chosen from List 1:

	<b>Credit value</b>
<b>List 1</b>	
Advanced Statistical Modelling	<a href="#">MATH31320</a> 20
Bayesian Computation and Modelling	<a href="#">MATH31420</a> 20
Codes and Cryptography	<a href="#">MATH30120</a> 20
Decision Theory	<a href="#">MATH30220</a> 20
Differential Geometry	<a href="#">MATH30320</a> 20
Dynamical Systems	<a href="#">MATH30720</a> 20
Galois Theory	<a href="#">MATH30420</a> 20
Geometry of Mathematical Physics	<a href="#">MATH31220</a> 20
Machine Learning and Neural Networks	<a href="#">MATH31520</a> 20
Mathematical Biology	<a href="#">MATH30920</a> 20
Operations Research	<a href="#">MATH30820</a> 20
Quantum Computing	<a href="#">MATH31020</a> 20
Quantum Mechanics	<a href="#">MATH31120</a> 20
Topology	<a href="#">MATH30620</a> 20
<b>List 2</b>	
Advanced Quantum Theory	<a href="#">MATH41020</a> 20
Algebraic Topology	<a href="#">MATH41120</a> 20
Analysis	<a href="#">MATH41220</a> 20
Ergodic Theory	<a href="#">MATH43320</a> 20
Fluid Mechanics	<a href="#">MATH41820</a> 20
Functional Analysis and Applications	<a href="#">MATH42920</a> 20
General Relativity	<a href="#">MATH40820</a> 20
Geometry	<a href="#">MATH41920</a> 20
Mathematical Finance	<a href="#">MATH40920</a> 20
Number Theory	<a href="#">MATH41620</a> 20
Partial Differential Equations	<a href="#">MATH41720</a> 20
Probability	<a href="#">MATH42120</a> 20
Representation Theory	<a href="#">MATH42220</a> 20
Riemannian Geometry	<a href="#">MATH41320</a> 20
Solitons	<a href="#">MATH41420</a> 20
Statistical Mechanics	<a href="#">MATH42320</a> 20
Stochastic Analysis * NOT AVAILABLE IN 2022/23	<a href="#">MATH43720</a> 20
Stochastic Processes	<a href="#">MATH43020</a> 20
Superstrings * NOT AVAILABLE IN 2022/23	<a href="#">MATH43820</a> 20
Topics in Algebra and Geometry	<a href="#">MATH41520</a> 20
Topics in Applied Mathematics	<a href="#">MATH43120</a> 20
Topics in Combinatorics	<a href="#">MATH43920</a> 20
Topics in Statistics	<a href="#">MATH42420</a> 20

4. Candidates shall also be assessed in the following module:

	<b>Credit value</b>
Dissertation	<a href="#">MATH51460</a> 60