

# The Major in Mathematics and Statistics in the New BSc

## Specialisations in a Mathematics and Statistics major (2009 onwards)

Type	1st Semester	2nd Semester	3rd Semester	4th Semester	5th Semester	6th semester
Pure	Calculus 2	Linear Algebra	Real Analysis with Applications  and Vector calculus	Group Theory with Linear Algebra	Complex Analysis and Algebra	Metric & Hilbert Spaces
					And one of	
					Graph Theory	Geometry Discrete Mathematics
Applied	Calculus 2	Linear Algebra	Real Analysis with Applications  and Vector calculus	Dynamical Systems and Chaos	Complex Analysis and Numerical and Symbolic Mathematics	Partial Differential Equations
					And one of	
					Graph Theory	Discrete Mathematics Stochastic Modelling
OR/Discrete	Calculus 2	Linear Algebra	Real Analysis with Applications  and Probability or Probability for Statistics	Discrete Maths & Operations Research	Complex Analysis	Decision Making Discrete Mathematics
					And one of	
					Techniques in Operations Research Graph Theory	Stochastic Modelling
Statistics/Stochastic Processes	Calculus 2	Linear Algebra	Real Analysis with Applications  and Probability or Probability for Statistics	Statistics	Linear Statistical Models	Stochastic Modelling
					And at least one of	
					Probability & Statistical Inference	Modern Applied Statistics
					<i>If only one was chosen then one of any other 300-level Maths And Stats subject</i>	

## Specialisations in a Mathematics and Statistics major for advanced entry students (2009 onwards)

Type	1st Semester	2nd Semester	3rd Semester	4th Semester	5th Semester	6th semester
Pure	Accelerated Mathematics 1	Accelerated Mathematics 2	Vector Calculus  and it is recommended to take Probability	Group Theory with Linear Algebra	Complex Analysis and Algebra	Metric & Hilbert Spaces
					And one of	
					Graph Theory	Geometry Discrete Mathematics
Applied	Accelerated Mathematics 1	Accelerated Mathematics 2	Vector Calculus  and it is recommended to take Probability	Dynamical Systems and Chaos	Complex Analysis and Numerical and Symbolic Mathematics	Partial Differential Equations
					And one of	
					Graph Theory	Discrete Mathematics Stochastic Modelling
OR/Discrete	Accelerated Mathematics 1	Accelerated Mathematics 2	Vector Calculus  and Probability	Discrete Maths & Operations Research	Complex Analysis	Decision Making Discrete Mathematics
					And one of	
					Techniques in Operations Research Graph Theory	Stochastic Modelling
Statistics/Stochastic Processes	Accelerated Mathematics 1	Accelerated Mathematics 2	Vector Calculus  and Probability	Statistics	Linear Statistical Models	Stochastic Modelling
					And at least one of	
					Probability & Statistical Inference	Modern Applied Statistics
					<i>If only one was chosen then one of any other 300-level Maths And Stats subject</i>	