

# The Major in Mathematics and Statistics in the New BSc

## Specialisations in a Mathematics and Statistics major starting in 2008 only

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 starting in 2008 only

Type	1st Semester	2nd Semester	3rd Semester	4th Semester	5th Semester	6th semester
Pure	Mathematics 1	Mathematics 2	Multivariable & Vector Calculus  and it is recommended to take Probability	Group Theory with Linear Algebra	Complex Analysis and Metric & Hilbert Spaces Algebra	
						And one of Graph Theory Geometry Discrete Mathematics
Applied	Mathematics 1	Mathematics 2	Multivariable & Vector Calculus  and it is recommended to take Probability	Dynamical Systems and Chaos	Complex Analysis and Partial Differential Equations Numerical and Symbolic Mathematics	
						And one of Graph Theory Discrete Mathematics Stochastic Modelling
OR/Discrete	Mathematics 1	Mathematics 2	Multivariable & Vector Calculus  and Probability	Discrete Maths & Operations Research	Complex Analysis and Decision Making Discrete Mathematics	
						And one of Techniques in Operations Research Graph Theory Stochastic Modelling
Statistics/Stochastic Processes	Mathematics 1	Mathematics 2	Multivariable & Vector Calculus  and Probability	Statistics	Linear Statistical Models and 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>