



School of Mathematics, Statistics & Applied Mathematics
B.Sc. Mathematics and Applied Mathematics Pathway

For 1st year students Ac.Yr 2021/2022

B.Sc. Undenominated Science - 1BS1 - Mathematics & Applied Mathematics Pathway						
1st year		ECTS		Sem	Pre/Co-requisites	Exclusion-requisites
MA180	Mathematics	15	Core	I+II		
MP180	Applied Mathematics	15	Core	I+II		
Any other 30 ECTS						

For 2nd year students Ac.Yr 2021/2022

B.Sc. Undenominated Science - 2BS1 - Mathematics & Applied Mathematics Pathway						
2nd year		ECTS		Sem	Pre/Co-requisites	Exclusion-requisites
MA284	Discrete Mathematics	5	Core	I	MA180	
MA2286	Differential Forms	5	Core	I	MA180	
MA283	Linear Algebra	5	Core	II	MA180	
MA2287	Complex Analysis	5	Core	II	MA180	
MP236	Mechanics I	5	Core	I	MP180	
MP237	Mechanics II	5	Core	II	MP180	
MP231	Mathematical Methods I	5	Core	I	MP180	
MP232	Mathematical Methods II	5	Core	II	MP180	
An additional 20ECTS pathways or electives.						
<i>Some suggested electives that may be of particular interest:</i>						
ST1111	Probability Models	5	Elective	I	MA180	ST2001&ST2002
ST1112	Statistical Methods	5	Elective	II	ST1111	ST2001&ST2002
MA2993	Mathematics of Finance	5	Elective	II	MA180	
MA2111	Anailis	5	Elective	II	MA180	
<i>Please refer to the Programme Booklet for complete list of Pathways and electives.</i>						

For 3rd year students Ac.Yr 2021/2022

B.Sc. Undenominated Science - 3BS9 - Mathematics & Applied Mathematics Pathway						
3rd year				Sem	Pre-requisites	Exclusion-requisites
MA3343	Groups	5	Core	I		
MA342	Topology	5	Core	II		
MA3491	Fields and Applications	5	Core	II		
MA3101	Euclidean and non-euclidean Geometry	5	Core	I		
MP345	Mathematical Methods I	5	Core	I		
MP346	Mathematical Methods II	5	Core	II		
MP366†	Electromagnetism	5	Core	I	2yr Cycle, available in 21.22	
MP494†	Partial Differential Equations	5	Core	I	2yr Cycle, available in 21.22	
MP365†	Fluid Mechanics	5	Core	II	2yr Cycle, available in 21.22	
MP356††	Quantum Mechanics I	5	Core	I	2yr Cycle, not available in 21.22	
MP357††	Quantum Mechanics II	5	Core	II	2yr Cycle, not available in 21.22	
MP410††	Non-Linear Elasticity	5	Core	I	2yr Cycle, not available in 21.22	
MP491	Non-Linear Systems	5	Core	II		
And ONE of: [ST2003&ST2004] or [ST2001&ST2002] or [ST311&ST312]						
ST2003	Random Variables	5	C.Option	I	ST1111	ST2001&ST2002
ST2004	Statistical Inference	5	C.Option	II	ST2003	ST2001&ST2002
ST2001	Statistics for Data Science I	5	C.Option	I	-	ST1112
ST2002	Statistics for Data Science II	5	C.Option	II	ST2001	ST1112
ST311	Applied Statistics I	5	C.Option	I	ST2002 or ST1112	ST313
ST312	Applied Statistics II	5	C.Option	II	ST311	
<i>† Offered on a 2yr Cycle, next available in 2021.22, †† Offered on a 2yr Cycle, next available in 2022.23.</i>						

For 4th year students Ac.Yr 2021/2022

B.Sc. Undenominated Science - 4BS2- Mathematics & Applied Mathematics Pathway						
4th year				Sem	Pre-requisites	Exclusion-requisites
MM4000	Final Year Project	10	Core	I+II		
MA490	Measure Theory	5	Core	I		
MA416	Rings	5	Core	I		
MA482	Functional Analysis	5	Core	II		
MA4344	Advanced Group Theory	5	Core	II		
MA378	Numerical Analysis II	5	Core	II		
MP305	Modelling I	5	Core	I		
MP307	Modelling II	5	Core	II		
MP366†	Electromagnetism	5	Core	I	2yr Cycle, available in 21.22	
MP494†	Partial Differential Equations	5	Core	I	2yr Cycle, available in 21.22	
MP365†	Fluid Mechanics	5	Core	II	2yr Cycle, available in 21.22	
MP356††	Quantum Mechanics I	5	Core	I	2yr Cycle, not available in 21.22	
MP357††	Quantum Mechanics II	5	Core	II	2yr Cycle, not available in 21.22	
MP410††	Non-Linear Elasticity	5	Core	I	2yr Cycle, not available in 21.22	

† Offered on a 2yr Cycle, next available in 2021.22, †† Offered on a 2yr Cycle, next available in 2022.23.