



Bachelor of Arts degree - Joint Honours - Mathematics

1st Year - Mathematics MH1020 (20 ECTS)

Module Code	Module Name	Module Type	Semester	ECTS	Pre-requisites/Notes	Exclusion-requisites
MA133	Analysis and Algebra I	Optional	I	5		
MA135	Analysis and Algebra II	Optional	II	5		
MA131	Mathematical Skills	Optional	I+II	5		
Or						
MA185	Analysis and Algebra I	Optional	I	5	Required for 2nd year subject MA2030 Mathematics	
MA186	Analysis and Algebra II	Optional	II	5		
MA187	Mathematical Skills	Optional	I+II	5		
Plus						
MA208	Quantitative Techniques for Business	Core	II	5		

2nd Year - Mathematics MA2030 (30 ECTS) - Requires MA185 & MA186 & MA187

Module Code	Module Name	Module Type	Semester	ECTS	Pre-requisites/Notes	Exclusion-requisites
MA2286	Differential Forms	Core	I	5	MA185 & MA186 & MA187	
MA2287	Complex Analysis	Core	II	5	MA185 & MA186 & MA187	
MA283	Linear Algebra	Core	II	5	MA185 & MA186 & MA187	
MA284	Discrete Mathematics	Core	I	5		
and choose one of [ST1111 & ST1112] or [ST2001 & ST2002]						
ST1111	Probability Models	Optional	I	5		
ST1112	Statistical Methods	Optional	II	5	ST1111	
ST2001	Statistics for Data Science I	Optional	I	5		
ST2002	Statistics for Data Science II	Optional	II	5	ST2001	

Final Year - Mathematics MA3030 (30 ECTS) - Requires MA2030

Module Code	Module Name	Module Type	Semester	ECTS	Pre-requisites/Notes	Exclusion-requisites
MA3101	Euclidean and Non-Euclidean Geometry	Core	I	5	MA283 & MA284 & MA2286 & MA2287	
MA3343	Groups	Core	I	5	MA283 & MA284 & MA2286 & MA2287	
MA342	Topology	Core	II	5	MA283 & MA284 & MA2286 & MA2287	
MA3491	Fields and Applications	Core	II	5	MA283 & MA284 & MA2286 & MA2287	
and select two optional modules from:						
CS3304	Logic	Optional	I	5		
CS402	Cryptography	Optional	II	5		
CS4423	Networks	Optional	II	5		
MA341	Metric Spaces	Optional	I	5		
MA4101	Teaching and Learning in Mathematics	Optional	I+II	5	not available 21.22	
MA416	Rings	Optional	I	5		
MA490	Measure Theory	Optional	I	5		
MA2111	Anailís	Optional	II	5		
MA4344	Advanced Group Theory	Optional	II	5		
MA482	Functional Analysis	Optional	II	5		
MA461	Probabilistic models for Molecular Biology	Optional	II	5		
ST2003	Random Variables	Optional	I	5	ST1111&ST1112	
ST2004	Statistical Inference	Optional	II	5	ST2003	
ST311	Applied Statistics I	Optional	I	5	ST1112 or ST2002 or ST238(discd.)	
ST312	Applied Statistics II	Optional	II	5	ST311	
ST417	Introduction to Bayesian Modelling	Optional	I	5	ST2002 or ST1112	



Bachelor of Arts degree - Mathematical Studies

1st Year - Mathematics MH1020 (20 ECTS)

Module Code	Module Name	Module Type	Semester	ECTS	Pre-requisites/Notes	Exclusion-requisites
MA133	Analysis and Algebra I	Optional	I	5		
MA135	Analysis and Algebra II	Optional	II	5		
MA131	Mathematical Skills	Optional	I+II	5		
Or						
MA185	Analysis and Algebra I	Optional	I	5		
MA186	Analysis and Algebra II	Optional	II	5		
MA187	Mathematical Skills	Optional	I+II	5		
Plus						
MA208	Quantitative Techniques for Business	Core	II	5		

2nd Year - Mathematical Studies MH2030 (30 ECTS) - Requires MH1020

Module Code	Module Name	Module Type	Semester	ECTS	Pre-requisites/Notes	Exclusion-requisites
MA203	Linear Algebra	Core	II	5		
MA211	Calculus I	Core	I	5		
MA212	Calculus II	Core	II	5		
MA284	Discrete Mathematics	Core	I	5		
ST2001	Statistics for Data Science I	Core	I	5		
ST2002	Statistics for Data Science II	Core	II	5		

Final Year - Mathematical Studies MH3030 (30 ECTS) - Requires MH2030

Module Code	Module Name	Module Type	Semester	ECTS	Pre-requisites/Notes	Exclusion-requisites
MA302	Complex Variables	Core	II	5		
MA313	Linear Algebra	Core	I	5		
MA334	Geometry	Core	II	5		
MA335	Algebraic Structures	Core	I	5		
CS3101	Software for Mathematical Scientists and Educators	Core	II	5		
and choose one module from:						
CS3304	Logic	Optional	I	5		
ST311	Applied Statistics I	Optional	I	5		
CS402	Cryptography	Optional	II	5		



B.A. Connect Programme

1ST YEAR

MH100 (15 ECTS)

Module Code	Module Name	Module Type	Semester	ECTS	Pre-requisites/Notes	Exclusion-requisites
MA133	Analysis and Algebra I	Optional	I	5		
MA135	Analysis and Algebra II	Optional	II	5		
MA131	Mathematical Skills	Optional	I +II	5		
or						
MA185	Analysis and Algebra I	Optional	I	5		
MA186	Analysis and Algebra II	Optional	II	5		
and						
MA187	Mathematical Skills	Optional	I + II	5		

2ND YEAR

2nd Year - Mathematics MA2025 (25 ECTS) : Requires MA185 & MA186

Module Code	Module Name	Module Type	Semester	ECTS	Pre-requisites/Notes	Exclusion-requisites
MA2286	Differential Forms	Core	I	5	MA185 & MA186	
MA284	Discrete Mathematics	Core	I	5		
ST2001	Statistics for Data Science I	Core	I	5		
MA2287	Complex Analysis	Core	II	5	MA185 & MA186	
MA283	Linear Algebra	Core	II	5	MA185 & MA186	

OR

2nd Year - Mathematical Studies MH2025 (25 ECTS) : Requires MH100

Module Code	Module Name	Module Type	Semester	ECTS	Pre-requisites/Notes	Exclusion-requisites
MA211	Calculus I	Core	I	5		
MA284	Discrete Mathematics	Core	I	5		
ST2001	Statistics for Data Science I	Core	I	5		
MA212	Calculus II	Core	II	5		
MA203	Linear Algebra	Core	II	5		

Final Year

MA3030 (30 ECTS) - Mathematics

Module Code	Module Name	Module Type	Semester	ECTS	Pre-requisites/Notes	Exclusion-requisites
MA3101	Euclidean and Non-Euclidean Geometry	Core	I	5	MA283 & MA284 & MA2286 & MA2287	
MA3343	Groups	Core	I	5	MA283 & MA284 & MA2286 & MA2287	
MA342	Topology	Core	II	5	MA283 & MA284 & MA2286 & MA2287	
MA3491	Fields and Applications	Core	II	5	MA283 & MA284 & MA2286 & MA2287	
and select two optional modules from:						
MA341	Metric Spaces	Optional	I	5		
MA4101	Teaching and Learning in Mathematics	Optional	I+II	5	not available 21.22	
MA416	Rings	Optional	I	5		
MA490	Measure Theory	Optional	I	5		
MA4344	Advanced Group Theory	Optional	II	5		
MA482	Functional Analysis	Optional	II	5		
CS402	Cryptography	Optional	II	5		
MA461	Probabilistic Models for Molecular Biology	Optional	II	5		
ST2002	Statistics for Data Science II	Optional	II	5	ST2001	

OR

MH3030 (30 ECTS) - Mathematical Studies

Module Code	Module Name	Module Type	Semester	ECTS	Pre-requisites	Exclusion-requisites
MA302	Complex Variables	Core	II	5		
MA313	Linear Algebra	Core	I	5		
MA334	Geometry	Core	II	5		
MA335	Algebraic Structures	Core	I	5		
CS3101	Software for Mathematical Scientists and Educators	Core	II	5		
and choose one module from:						
CS3304	Logic	Optional	I	5		
CS402	Cryptography	Optional	II	5		
ST2002	Statistics for Data Science II	Optional	II	5	ST2001	