BSc (Hons) Mathematics

1. Objectives

The BSc (Hons) Mathematics programme offers a combination of lectures and tutorials in Pure & Applied Mathematics, Probability & Statistics, Financial Mathematics and Computational Mathematics. The aims and objectives are:

- to provide a challenging course in Mathematics and its applications for a range of students;
- to provide a course that is suitable both for students aiming to pursue research and for students going into
 other careers;
- to develop in students the capacity for learning and for clear logical thinking;
- to produce the high calibre graduates in Mathematics sought by employers in the private & public sectors;
- to provide an intellectually stimulating environment in which students have the opportunity to develop their skills to their full potential.

2. General Entry Requirements

As per General Entry Requirements for admission to the University for undergraduate degrees.

3. Programme Requirement

Minimum Grade 'C' in Mathematics at GCE 'A' level.

4. Programme Duration

	Normal	Maximum
Degree:	3 years	5 years

5. Credits per Year

Minimum: 18 credits; Maximum (including retake modules): 48 credits

6. Minimum Credits Required for Award of Undergraduate Degree: 100

Breakdown as follows:

Degree	Core Taught Modules	Project	Electives
BSc(Hons) Mathematics	72	7	Minimum 21 ^{a,b}

^a 6 credits from level 1 electives

<u>IMPORTANT NOTE:</u> The student will be allowed to opt for the BSc (Hons) Mathematics, BSc (Hons) Mathematics with Statistics, or BSc (Hons) Mathematics with Finance programme after the common first year. For the specialisation in Finance/Statistics students are required to have 33 credits from Level 2/3 Finance/Statistics modules.

^b 6 credits from Mathematics level/year 2 electives & 9 credits from Mathematics level/year 3 electives.

7. Assessment

Each module will be assessed over 100 marks and assessment will be based on a written examination of 2-hour duration for modules carrying less than or equal to three credits and 3-hour paper for modules carrying five-six credits, and on continuous assessment done during the semester or year.

Written examinations for modules, will be carried out at the end of the year, except for MATH1101(1) and MATH1201(1), which will be examined at the end of the semester.

The continuous assessment will count for 10-40% of the overall percentage mark of the module(s), except for a Programme where the structure makes for other specific provision(s). Continuous assessment may be based on laboratory work, seminars and/or assignments and should include at least 1 class test.

There will be a compulsory class test for all modules taught at the end of each semester of the given academic year unless stated otherwise in the Programme Structure.

An overall total of 40% is required for a candidate to pass a module. Special examinations (e.g. class tests) will be arranged at the end of semester 1 or semester 2 for exchange students who have registered only for one semester. In case of yearly modules, credits will be assigned on a pro-rata basis.

Projects/Dissertations will carry 7 credits for degree award.

The following list of modules will be assessed solely by continuous assessment:

MA1106Y (1) MA1203(1) MA3010(5)

8. List of Modules

MA1102(1) Mathematical Analysis I 3+0 3 MA1103(1) Applied Mathematics I 3+0 3 MA1104(1) Algebra 3+0 3 MA1105(1) Probability & Statistics 3+0 3 MA1105(1) Probability & Statistics 3+0 3 MA1109(1) Mathematical Techniques II 3+0 3 MA1202(1) Mathematical Analysis II 3+0 3 MA2103(1) Computer Applications in Mathematics 2+2 3 MA2101(3) Numerical Analysis II 3+0 3 MA2103(3) Mathematical Methods I 3+0 3 MA2104(3) Complex Analysis 3+0 3 MA2105(3) Metric Spaces 3+0 3 MA2201(3) Linear Algebra 3+0 3 MA2201(3) Linear Pogramming 3+0 3 MA2204(3) Numerical Analysis II 3+0 3 MA2205(3) Numerical Linear Algebra 3+0 3 MA3000(5) <td< th=""><th>A. Core N Code MA1101(1)</th><th>Modules (72 + 7 Credits) Module Name Mathematical Techniques I</th><th>Hrs/Wk/ L+P 3+0</th><th>Credits</th></td<>	A. Core N Code MA1101(1)	Modules (72 + 7 Credits) Module Name Mathematical Techniques I	Hrs/Wk/ L+P 3+0	Credits
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MA3009(5) Dynamical Systems 3+0 3	MA3007(5)	Rings and Fields	3+0	3
	MA3008(5)	Topology	3+0	3
MA3010(5) Mathematical Modelling 3±0 3	MA3009(5)	Dynamical Systems	3+0	3
111 2010(c) Prantomatical Producting	MA3010(5)	Mathematical Modelling	3+0	3

9. Programme Plan - BSc (Hons) Mathematics

S 4 1				YEAR				
Semester 1 Code	Module Name	Hrs/ Wk	Cre dits		Semester 2 Code	Module Name	Hrs/Wk	Credits
CORE		L+P			CORE		L+P	
CORE					CORE			
MA1101(1)	Mathematical Techniques I	3+0	3		MA1201(1)	Mathematical Techniques II	3+0	3
MA1102(1)	Mathematical Analysis I	3+0	3		MA1202(1)	Mathematical Analysis II	3+0	3
MA1103(1) MA1104(1) MA1105(1)	Applied Mathematics I Algebra Probability & Statistics	3+0 3+0 3+0	3 3 3		MA1203(1)	Computer Applications in Mathematics	2+2	3
MA1105(1) MA1106Y(1)	Tools for Scientific	2+2	6		TWO ELECTIV	ES FROM:		
	Reporting				MA1001(1)	Financial Mathematics I	3+0	3
					MA1002(1)	Applied Mathematics II	3+0	3
					MA1003(1)	Descriptive Statistics	3+0	3
					MA1004(1)	Simulation Modeling & Analysis	3+0	3
					ACF1000(1)	Accounting for Financial Decision Making	3+0	3
					ACF1002(1)	Principles of Finance	3+0	3
Compostor 1				YEAR	2 Semester 2			
Semester 1 Code	Module Name	Hr	s/Wk	Credits	Code	Module Name	Hrs/Wk	Credits
0040	11204416 1 141116		.+P	Creans	Code	11200010 1 101110	L+P	Crear
CORE					CORE			
MA2101(3)	Numerical Analysis I	3	8+0	3	MA2201(3)	Linear Algebra	3+0	3
MA2102(3)	Mathematical Methods I	3	8+0	3	MA2202(3)	Linear Programming	3+0	3
MA2103(3)	Mathematical Statistics	3	8+0	3	MA2203(3)	Linear Regression Analysis	3+0	3
MA2104(3)	Complex Analysis	3	8+0	3	MA2204(3)	Numerical Analysis II	3+0	3
MA2105(3)	Metric Spaces	3	8+0	3	MA2205(3)	Numerical Linear Algebra	3+0	3
NOTE: AT LEA	ST TWO ELECTIVES FROM:							
MA2001(3)	Group Theory	3	8+0	3	MA2003(3)	Vector & Tensor Analysis	3+0	3
MA2002(3)	Discrete Mathematics	3	8+0	3	MA2005(3)	Mathematical Methods II	3+0	3
and /or any oth	er year 2 module offered by th	e depar	tment.					
				YEAR	<u>3</u>			
Semester 1					Semester 2			
Code	Module Name	Hr	s/Wk	Credits	Code	Module Name	Hrs/Wk	Credits
		I	-+ P				L+P	
CORE					CORE			
MA3000(5)	Project		-	7				
MA3101(5)	Measure & Integral	3	8+0	3	MA3201(5)	Applied Probability	3+0	3
MA3102(5)	Fluid Dynamics I	3	8+0	3	MA3202(5)	Functional Analysis	3+0	3
NOTE: AT LEAS	ST THREE ELECTIVES FROM							
MA3001(5)	Operational Research	3	8+0	3	MA3007(5)	Rings & Fields	3+0	3
MA3003(5)	Numerical Solution of PDEs		8+0	3	MA3008(5)	Topology	3+0	3
MA2004(5)	Ontimication	-	2 + 0	2	MA3000(5)	Dynamical Systems	3 + 0	2

and /or any other year 3 module offered by the department.

Optimisation

Fluid Dynamics II

Note:

MA3004(5)

MA3006(5)

1. Electives may be offered in either semester 1 or 2 & not all electives may be on offer.

3

MA3009(5)

MA3010(5)

Dynamical Systems

Mathematical Modelling

3+0

3

3+0

3+0

2. Students opting for BSc (Hons) Mathematics with Finance should register for ACF 1000(1) and ACF1002(1) as electives in Year I.

BSc (Hons) Mathematics with Statistics

1. Objectives

Mathematics and Statistics are the means by which we interpret large amount of data that science, government and industry generate. With mathematical tools and theoretical understanding students are better equipped to understand and analyse these information. This degree will provide very good knowledge and skills of both mathematics and statistics which keep career options broad. Also, logical thinking, problem-solving and analytical skills will allow one to take up roles as diverse as management, consulting, marketing and journalism.

The first year develops and strengthens the background of probability and statistics, but also introduces professional software such as Mathematica and statistical softwares like R and SPSS. In the second year students can master more advanced statistical techniques such as regression analysis, survey methodology and design of experiments. After this sound base is established, the final year features more choice, including time series and multivariate analysis.

2. General Entry Requirements

As per General Entry Requirements for admission to the University for undergraduate degrees.

3. Programme Requirement

Minimum Grade 'C' in Mathematics at GCE 'A' level.

4. Programme Duration

NormalMaximumDegree:3 years5 years

5. Credits per Year

Minimum: 18 credits; Maximum (including retake modules): 48 credits

6. Minimum Credits Required for Award of Undergraduate Degree: 100

Breakdown as follows:

Degree	Core Taught Modules	Project	Electives
BSc(Hons)Mathematics	75	7	Minimum 18 ^{a, b, c}
with Statistics			

^a 6 credits from level/year 1 electives.

<u>IMPORTANT NOTE:</u> The student will be allowed to opt for the BSc (Hons) Mathematics, BSc (Hons) Mathematics with Statistics, or BSc (Hons) Mathematics with Finance programme after the common first year. For the specialisation in Finance/Statistics students are required to have 33 credits from Level 2/3 Finance/Statistics modules.

^b at least 3 credits from level/year 2.

^c at least 9 credits from level/year 3.

7. Assessment

Each module will be assessed over 100 marks and assessment will be based on a written examination of 2 hour duration for modules carrying less or equal to three credits and 3 hour paper for modules carrying five-six credits, and on continuous assessment done during the semester or year.

Written examinations for modules will be carried out at the end of the year, except for MATH1101(1) and MATH1201(1), which will be examined at the end of the semester.

The continuous assessment will count for 10-40% of the overall percentage mark of the module(s), except for a Programme where the structure makes for other specific provision(s). Continuous assessment may be based on laboratory work, seminars and/or assignments and should include at least 1 class test.

There will be a compulsory class test for all modules taught at the end of each semester of the given academic year unless stated otherwise in the Programme Structure.

An overall total of 40% is required for a candidate to pass a module. Special examinations (e.g. class tests) will be arranged at the end of semester 1 or semester 2 for exchange students who have registered only for one semester. In case of yearly modules, credits will be assigned on a pro-rata basis.

Projects/Dissertations will carry 7 credits for degree award.

The following list of modules will be assessed solely by continuous assessment:

MA1106Y (1) MA1203(1) MA3010(5)

8. List of Modules

A. Core Modules (75+7 credits)

Code	Module Name	Hrs/Wk/L+P	Credits
MA1101(1)	Mathematical Techniques I	3+0	3
MA1102(1)	Mathematical Analysis I	3+0	3
MA1103(1)	Applied Mathematics I	3+0	3
MA1104(1)	Algebra	3+0	3
MA1105(1)	Probability & Statistics	3+0	3
MA1106Y(1)	Tools for Scientific Reporting	2+2	6
MA1201(1)	Mathematical Techniques II	3+0	3
MA1202(1)	Mathematical Analysis II	3+0	3
MA1203(1)	Computer Applications in Mathematics	2+2	3
MA2101(3)	Numerical Analysis I	3+0	3
MA2102(3)	Mathematical Methods I	3+0	3
MA2103(3)	Mathematical Statistics	3+0	3
MA2104(3)	Complex Analysis	3+0	3
MA2105(3)	Metric Spaces	3+0	3
MA2107(3)	Survey Methodology	3+0	3
MA2201(3)	Linear Algebra	3+0	3
MA2202(3)	Linear Programming	3+0	3
MA2203(3)	Linear Regression Analysis	3+0	3
MA2205(3)	Numerical Linear Algebra	3+0	3
MA2207(3)	Design and Analysis of Experiments	3+0	3
MA3000(5) MA3101(5)	Project Measure and Integral	- 3+0	7 3
MA3103(5)	Generalised Linear Models	3+0	3
MA3201(5)	Applied Probability	3+0	3
MA3203(5)	Multivariate Analysis	3+0	3
B. Elective Modul		3+0	3
Code	Module Name	Hrs/Wk/ L+P	Credits
ACF1000(1)	Accounting For Financial Decision Making	3+0	3
ACF1000(1) ACF1002(1)	Principles of Finance	3+0	3
MA1001(1)	Financial Mathematics I	3+0	3
MA1001(1) MA1002(1)	Applied Mathematics II	3+0	3
MA1002(1) MA1003(1)	Descriptive Statistics	3+0	3
MA1003(1) MA1004(1)	Simulation Modeling and Analysis	3+0 3+0	3
MA2004(1) MA2004(3)	Computational Statistics	3+0	
MA2004(3) MA2007(3)	Survival Analysis	3+0 3+0	3
MA2007(3) MA2008(3)	Statistical Quality Control	3+0 3+0	3
MA2009(3)	Actuarial Mathematics	3+0	3
MA2106(3)	Risk Analysis I	3+0	3
MA3002(5)	Longitudinal Data Analysis	3+0	3
1.11 13002(3)	Dong radinar Dam r maryon	310	5

MA3005(5)	Statistical Methods for Finance	3+0	3
MA3011(5) MA3012(5)	Time Series Analysis Geostatistics	3+0 3+0	3 3
MA3013(5)	Statistical Data Mining	3+0	3
MA3014(5)	Categorical Data Analysis	3+0	3
MA3015(5)	Bayesian Statistics	3+0	3
MA3016(5)	Game Theory	3+0	3

9. Programme Plan - BSc(Hons) Mathematics with Statistics

Semester 1				YEAR 1	Semester 2			
Code	Module Name	Hrs/ Wk	Credits	S	Code	Module Name	Hrs/Wk	Credits
		L+P					L+P	
CORE					CORE			
MA1101(1)	Mathematical Techniques I	3+0	3		MA1201(1)	Mathematical Techniques II	3+0	3
MA1102(1)	Mathematical Analysis I	3+0	3		MA1202(1)	Mathematical Analysis II	3+0	3
MA1103(1)	Applied Mathematics I	3+0	3		MA1203(1)	Computer Applications in	2+2	3
MA1104(1)	Algebra	3+0	3			Mathematics		
MA1105(1)	Probability & Statistics Tools for Scientific	3+0	3		TWO FI FCT	IVES FROM:		
MA1106Y(1)	Reporting	2+2	6		MA1001(1)	Financial Mathematics I	3+0	3
	Reporting				MA1002(1)	Applied Mathematics II	3+0	3
					MA1003(1)	Descriptive Statistics	3+0	3
					MA1004(1)	Simulation Modeling &	3+0	3
					. CT1.000(1)	Analysis		
					ACF1000(1)	Accounting for Financial	3+0	3
					ACF1002(1)	Decision Making Principles of Finance	3+0	3
				VEAD 2	` '	1		
				YEAR 2				
Semester 1					Semester 2			
Code	Module Name		:s/Wk	Credits	Code	Module Name	Hrs/Wk	Credits
CODE		I	L+ P		CODE		L+P	
CORE					CORE			
MA2101(3)	Numerical Analysis I		3+0	3	MA2201(3)	Linear Algebra	3+0	3
MA2102(3)	Mathematical Methods I	3	3+0	3	MA2202(3)	Linear Programming	3+0	3
MA2103(3)	Mathematical Statistics		3+0	3	MA2203(3)	Linear Regression Analysis	3+0	3
MA2104(3)	Complex Analysis	3	3+0	3	MA2205(3)	Numerical Linear Algebra	3+0	3
MA2105(3)	Metric Spaces	3	3+0	3	MA2207(3)	Design & Analysis of	3+0	3
MA2107(3)	Survey methodology	3	3+0	3		Experiments		
NOTE: AT LEAST	ONE ELECTIVE FROM:							
MA2004(3)	Computational Statistics	1	3+0	3	MA2008(3)	Statistical Quality Control	3+0	3
MA2007(3)	Survival Analysis		3+0	3		2 (
MA2106(3)	Risk Analysis I	:	3+0	3	MA2009(3)	Actuarial Mathematics	3+0	3
and /or any other	year 2 module offered by the	e depar	tment.					
				VEAD 2				
Semester 1				YEAR 3	Semester 2			
Code	Module Name	Hr	s/Wk	Credits	Code	Module Name	Hrs/Wk	Credits
0040			L+P		0040		L+P	
CORE					CORE			
MA3000(5)	Project		_	7	MA3201(5)	Applied Probability	3+0	3
MA3101(5)	Measure & Integral	1	3+0	3	MA3203(5)	Multivariate Analysis	3+0	3
MA3103(5)	Generalised Linear Models	3	3+0	3		•		
NOTE: AT LEAST	THREE ELECTIVES FROM:							
			2.0	2	MA2012(5)	quality ID + 3.5 f	2:0	2
MA3002(5)	Longitudinal Data Analysis		3+0	3	MA3013(5)	Statistical Data Mining	3+0	3

MA3005(5)	Statistical Methods for Finance	3+0	3	MA3014(5)	Categorical Data Analysis	3+0	3
MA3011(5)	Time Series Analysis	3+0	3	MA3015(5)	Bayesian Statistics	3+0	3
MA3012(5)	Geostatistics	3+0	3	MA3016(5)	Game Theory	3+0	3

and /or any other year 3 module offered by the department.

Note:

- 1. Electives may be offered in either semester 1 or 2 & not all electives may be on offer.
- 2. Students opting for BSc (Hons) Mathematics with Finance should register for ACF 1000(1) and ACF1002(1) as electives in Year I.

BSc (Hons) Mathematics with Finance

1. Objectives

The BSc (Hons) Mathematics with Finance programme offers a combination of lectures and tutorials in Pure & Applied Mathematics, Probability & Statistics and Finance, including general and applied financial theory. The aims and objectives are:

- to provide a challenging course in Mathematics, combined with Finance and its applications, for a range of students;
- to provide a course that is both suitable for students aiming to pursue research and for students going into other careers;
- to develop in students the analytical and logical skills related to the knowledge of Finance, backed up by mathematical knowledge, that are highly valued by employers;
- to produce the high calibre graduates sought by employers in the private and public sectors, in areas of banking, accountancy, insurance, offshore, sales and marketing;
- to provide an intellectually stimulating environment in which students have the opportunity to develop their skills to their full potential.

2. General Entry Requirements

As per General Entry Requirements for admission to the University for undergraduate degrees.

3. Programme Requirement

Minimum Grade 'C' in Mathematics at GCE 'A' level.

4. Programme Duration

9	Normal	Maximum
Degree:	3 years	5 years

5. Credits per Year

Minimum: 18 credits; Maximum (including retake modules): 48 credits

6. Minimum Credits Required for Award of Undergraduate Degree: 100

Breakdown as follows:

Degree		Core Taught Modules	Project	Electives	
BSc(Hons)	Mathematics	72	7	Minimum 21 ^{a,b,c}	
with Finance					

^a 6 credits from level/year 1 electives

<u>IMPORTANT NOTE:</u> The student will be allowed to opt for the BSc (Hons) Mathematics, BSc (Hons) Mathematics with Statistics, or BSc (Hons) Mathematics with Finance programme after the common first year. For the specialisation in Finance/Statistics students are required to have 33 credits from Level 2/3 Finance/Statistics modules.

^b 6 credits from level/year 2 finance module electives

^c 9 credits from level/year 3 electives with at least 6 credits from finance modules.

7. Assessment

Each module will be assessed over 100 marks and assessment will be based on a written examination of 2 hour duration for modules carrying less or equal to three credits and 3 hour paper for modules carrying five-six credits, and on continuous assessment done during the semester or year.

Written examinations for modules, will be carried out at the end of the year, except for MATH1101(1) and MATH1201(1), which will be examined at the end of the semester.

The continuous assessment will count for 10-40% of the overall percentage mark of the module(s), except for a Programme where the structure makes for other specific provision(s). Continuous assessment may be based on laboratory work, seminars and/or assignments and should include at least 1 class test.

There will be a compulsory class test for all modules taught at the end of each semester of the given academic year unless stated otherwise in the Programme Structure.

An overall total of 40% is required for a candidate to pass a module. Special examinations (e.g. class tests) will be arranged at the end of semester 1 or semester 2 for exchange students who have registered only for one semester. In case of yearly modules, credits will be assigned on a pro-rata basis.

Projects/Dissertations will carry 7credits for degree award. They will normally be carried out in the area of specialisation.

The following list of modules will be assessed solely by continuous assessment:

MA1106Y(1)

MA1203(1)

MA3010(5)

8. List of Modules

A. Core Modules (72 + 7 Credits)

Code	Module Name	Hrs/Wk L+P	Credits
MA1101(1)	Mathematical Techniques I	3+0	3
MA1102(1)	Mathematical Analysis I	3+0	3
MA1103(1)	Applied Mathematics I	3+0	3
MA1104(1)	Algebra	3+0	3
MA1105(1)	Probability & Statistics	3+0	3
MA1106Y(1)	Tools for Scientific Reporting	2+2	6
MA1201(1)	Mathematical Techniques II	3+0.	3
MA1202(1)	Mathematical Analysis II	3+0	3
MA1203(1)	Computer Applications in Mathematics	2+2	3
MA2101(3)	Numerical Analysis I	3+0	3
MA2102(3)	Mathematical Methods I	3+0	3
MA2103(3)	Mathematical Statistics	3+0	3
MA2106(3)	Risk Analysis I	3+0	3
MA2201(3)	Linear Algebra	3+0	3
MA2202(3)	Linear Programming	3+0	3
MA2203(3)	Linear Regression Analysis	3+0	3
MA2206(3)	Fixed Income Analysis	3+0	3
DFA2002Y(3)	Corporate Finance	3+0	6
MA3000(5)	Project	-	7
MA3104 (5)	Risk Analysis II	3+0	3
MA3105(5)	Financial Derivatives	3+0	3
MA3201(5)	Applied Probability	3+0	3
MA3204(5)	Stochastic Calculus	3+0	3

B. Electives (Not all modules may be on offer)

ACF1000(1)	Accounting for Financial Decision Making	3+0	3
ACF1002(1)	Principles of Finance	3+0	3
MA1001(1)	Financial Mathematics	3+0	3
MA1002(1)	Applied Mathematics II	3+0	3
MA1003(1)	Descriptive Statistics	3+0	3
MA1004(1)	Simulation Modeling and Analysis	3+0	3
MA2006(3)	Alternative Investments	3+0	3
MA2009(3)	Actuarial Mathematics	3+0	3
DFA2012Y(3)	Portfolio Theory & Fixed Income Securities	3+0	6
MA3005(5)	Statistical Methods for Finance	3+0	3
MA3011(5)	Time Series Analysis	3+0	3
MA3017(5)	Mathematics for Economics	3+0	3
MA3018(5)	Discrete Time Finance	3+0	3

DFA3006Y(5) International Finance

3+0

9. Programme Plan - BSc (Hons) Mathematics with Finance

YEAR 1							
Semester 1 Code	Module Name	Hrs/Wk	Credi ts	Semester 2 Code M	odule Name	Hrs/Wk	Credits
CORE		L+P		CORE		L+P	
COKE				CORE			
MA1101(1)	Mathematical Techniques I	3+0	3	MA1201(1)	Mathematical Techniques II	3+0	3
MA1102(1)	Mathematical Analysis I	3+0	3	MA1202(1)	Mathematical Analysis II	3+0	3
MA1103(1)	Applied Mathematics I	3+0	3	MA1203(1)	Computer Applications in	2+2	3
MA1104(1)	Algebra	3+0	3		Mathematics		
MA1105(1)	Probability & Statistics	3+0	3	TWO ELECTIVE	FROM		
MA1106Y(1)	Tools for Scientific	2+2	6	MA1001(1)	Financial Mathematics	3+0	3
	Reporting			MA1002(1)	Applied Mathematics II	3+0	3
				MA1003(1)	Descriptive Statistics	3+0	3
				MA1004(1)	Simulation Modelling &		
					Analysis	3+0	3
				ACF1000(1)	Accounting for Financial		
					Decision Making	3+0	3
				ACF1002(1)	Principles of Finance	3+0	3

YEAR 2

Semester 1 Code	Module Name	Hrs/Wk L+P	Credits	Semester 2 Code	Module Name	Hrs/Wk L+P	Credits
CORE		L+r		CORE		L+r	
MA2101(3)	Numerical Analysis I	3+0	3	MA2201(3)	Linear Algebra	3+0	3
MA2102(3)	Mathematical Methods I	3+0	3	MA2202(3)	Linear Programming	3+0	3
MA2103(3)	Mathematical Statistics	3+0	3	MA2203(3)	Linear Regression Analysis	3+0	3
MA2106(3)	Risk Analysis I	3+0	3	MA2206(3)	Fixed Income Analysis	3+0	3
DFA2002Y(3)	Corporate Finance	3+0	6				
NOTE: AT LEAST TWO ELECTIVES FROM:							
DFA2012Y(3)	Portfolio Theory &	3+0	6	MA2006(3)	Alternative Investments	3+0	3
,	Fixed Income Securities			MA2009(3)	Actuarial Mathematics	3+0	3

and /or any other year 2 module offered by the department.

YEAR	3
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			112211	<u> </u>			
Semester 1 Semester 2							
Code	Module Name	Hrs/Wk	Credits	Code	Module Name	Hrs/W k	Credits
		L+P				L+P	
CORE				CORE			
MA3000(5)	Project	-	7	MA3201(5)	Applied Probability	3+0	3
MA3104(5)	Risk Analysis II	3+0	3	MA3204(5)	Stochastic Calculus	3+0	3
MA3105(5)	Financial Derivatives	3+0	3				
NOTE: AT LE	AST THREE ELECTIVE	S FROM (of w	hich six(6) cr	edits from finance	e modules):		
MA3011(5)	Time Series Analysis	3+0	3	MA3018(5)	Discrete Time Finance	3+0	3
MA3017(5)	Mathematics for			MA3005(5)	Statistical Methods for Finance	3+0	3
	Economics	3+0	3				
DFA3006Y(5)	International Finance	3+0	6				

and /or any other year 3 module offered by the department.

Note:

1. Electives may be offered in either semester 1 or 2 & not all electives may be on offer.

2.	Students opting for BSc (Hons) Mathematics with Finance should register for ACF 1000(1) and ACF1002(1) as electives in Year I.