B.Sc. & B.Sc. (Hons) with Major in Quantitative Finance

Graduation Requirements for students admitted in AY2011/12

To be awarded a **B.Sc. or B.Sc.(Hons) with primary major in Quantitative Finance**, in addition to the University and Faculty requirements, a candidate must satisfy the following:

Module Level	Major Requirements	Level MCs	Cumulative Major MCs
1000	1. Pass all the following modules: • CS1010/CS1010E/CS1010S* Programming Methodology • CS1020/CS1020E Data Structures and Algorithms I • ACC1002 Financial Accounting • MA1101R Linear Algebra I • MA1102R Calculus • MA1104 Multivariable Calculus	24	24
2000	2. Pass all the following modules: • FIN2004 Finance • MA2213 Numerical Analysis I • MA2216/ST2131 Probability • QF2101 Basic Financial Mathematics 3. Pass one module from the following: • MA2101/MA2101S Linear Algebra II • MA2108/MA2108S Mathematical Analysis I • ST2132 Mathematical Statistics • ST2137 Computer Aided Data Analysis	20-21	44-45
3000	4. Pass all the following modules: • QF3101 Investment Instruments: Theory and Computation • MA3245 Financial Mathematics I 5. Pass two modules from the following: • QF3201 Basic Derivatives and Bonds • CS3230 Designs and Analysis of Algorithms • MA3220 Ordinary Differential Equations • MA3236 Nonlinear Programming • MA3252 Linear and Network Optimisation • MA3264 Mathematical Modelling • ST3131 Regression Analysis	24	68-69

Module Level	Major Requirements	Level MCs	Cumulative Major MCs
	6. Pass two modules from the following: • FIN3101 Corporate Finance • FIN3103 Financial Markets • FIN3117 Bank Management • FIN3118 Financial Risk Management		
4000	7. Pass all the following modules: • QF4199 Honours Project in Quantitative Finance • QF4102 Financial Modelling • MA4257 Mathematical Finance II 8. Pass three modules from the following: • QF4201 Financial Time Series: Theory and Computation • FIN4111 Research Methods in Finance • FIN4112 Seminar in Finance • MA4254 Discrete Optimisation • MA4255 Numerical Partial Differential Equations • MA4260 Stochastic Operations Research • MA4264 Game Theory • MA4267 Discrete Time Finance • ST4233 Linear Models • ST4245 Statistical Methods for Finance • MA5245 Advanced Financial Mathematics • MA5248 Stochastic Analysis in Mathematical Finance	32	100-101

Modular Credit Cumulative Table		
Requirements	**B.Sc.**	**B.Sc. (Hons)**
University Requirements	20 MC	20 MC
Faculty Requirements	12 MC*	12 MC*
Major Requirements	68-69 MC	100-101 MC
Unrestricted Free Electives	20-19 MC	28-27 MC
Total	**120 MC**	**160 MC**

* Faculty requirements of 12 MCs and 16 MCs required for the B.Sc. and B.Sc. (Hons.) programme are partially fulfilled through the reading of MA/CS modules within the major.

Students of the B.Sc. and B.Sc. (Hons.) programmes are required to fulfil the remaining 12 MCs of Faculty requirements from any three (3) of the following subject groups: Chemical Sciences, Life Sciences, Physical Sciences and Multidisciplinary & Interdisciplinary Sciences, but not from the following subject groups: Computing Sciences and Mathematical & Statistical Sciences.

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