Four-Year Study Plan of Financial Mathematics Programme (2020 cohort)

Course Code	Course Title	Year One Sem 1	Year One Sem 2	Year One Summer/Winter	Year Two Sem 1	Year Two Sem 2	Year Three Sem 1	Year Three Sem 2	Year Four Sem 1	Year Four Sem 2
I. Major Required Courses (54 Units)										
MATH1053	Linear Algebra I	3								
MATH1073	Calculus I	3								
MATH1063	Linear Algebra II		3							
MATH1083	Calculus II		3							
COMP3153	C++ Programming Language				3					
FINM3093	Investments				3					
MATH2023	Ordinary and Partial Differential Equations				3					
MATH2033	Mathematical Statistics				3					
COMP3143	Data Structure (for FM Students)					3				
ECON2053	Economics					3				
STAT2023	Advanced Probability					3				
FINM4033	Financial Modelling						3			
FINM3003	Financial Mathematics I (for FM Students)⑥						3			
MATH3003	Stochastic Processes and Applications						3			
FINM2013	Time Series for Finance and Macroeconomics							3		
FINM3033	Risk Management in Finance							3		
FINM4003	Financial Mathematics II (for FM Students)⑥							3		
FINM4004	Final Year Project I (FM)								3	
II. Major Elective Courses (6 Units)										
ME01 ME02							3			3⑤
III. General Education Core Courses (32 Units)										
CHI1053	University Chinese (Morality and Foundations of Law)	3								
CHI1063	Chinese Culture and Modern China							3		
CHI1073	Contemporary Chinese Society and Thoughts (Theories)		3							
CHI1083	Contemporary Chinese Society and Thoughts (Social Practice)		0							
CHI1093	Contemporary World and China②					0				
GCLA1903	English I	3								
GCLA1913	English II		3							
GCLA1923	English III				3					
GCLA1933	English IV					3				
GCIT1XX3	Information Management Technology①	3								
GCNU1XX3	Numeracy①		3							
GCPE1XX3	Physical Education①	1	1							
GCVM1013	Applied Ethics in Science and Technology								3	
IV. General Education Distribution Courses (12 Units)										
GDBM1XX3	Foundation Course in Business and Management①					3				
GDHS1XX3	Foundation Course in Humanities and Social Sciences①							3		
GDFL1XX3	Foundation Course in Foreign Language①						3			
GDHC1XX3	Foundation Course in World History and Civilisation①								3	
V. Whole Person Education Experiential Learning Modules (4 Units)										
WPEX Module I	WPEX1003 Experiential Development	1								
WPEX Module II	WPEX1013 Emotional Intelligence		1							
WPEX Module III	WPEX2003 Sports Culture①, or WPEX2013 Experiential Arts①				1					
WPEX Module IV	WPEX2023 Voluntary Service①, or WPEX2033 Environmental Awareness①				1					
VI. Free Elective Courses (24 Units)										
FE01 FE02 FE03 FE04 FE05 FE06 FE07 FE08				3③	3	3	3	3	9④	
Total Units: 132		17	17	3	19	19	18	18	18	3

① This denotes a course category in which a list of courses may be developed for students' selection. Students are expected to refer to the Online Course Selection System for courses available under each category.

② This course will take the form of lecture series. Students are required to attend and submit notes for at least 10 lectures within their first two years of study.

③ CHI1103 Introduction to Modern Social Theories will be offered under this category.

④ Students should take one FE(ENG) course under this category.

⑤ With the approval of the Programme Director, students may register this course in the second semester of Year 4 to complete a year-long (totally 6 units) final year

⑥ Students of the Financial Mathematics Programme are not allowed to take FIN3073 Financial Mathematics, ECON2003 Principles of Macroeconomics and ECON2013 Principles of Microeconomics which are intended for students of other academic programmes.

ME Course List of FM (2020 cohort)

Course Code	Course Title	Units
BUS2023	Marketing Strategy and Management	3
BUS3033	China's Capital Markets	3
BUS4053	Corporate Strategy and Management*	3
COMP3013	Database Management Systems	3
DS4023	Machine Learning	3
ECON3093	Introduction to International Economics	3
ECON3133	Introductory Econometrics	3
FIN3063	Principles of Corporate Finance*	3
FINM2003	Theory of Finance	3
FINM2023	Regression Analysis (for FM Students)	3
FINM2033	Python for Finance	3
FINM2043	Financial Engineering	3
FINM3013	Introduction to Financial Derivatives	3
FINM3023	Fixed Income Securities and Their Derivatives	3
FINM3043	Behavioural Finance	3
FINM3053	Statistics in Finance	3
FINM3063	International Finance	3
FINM3073	Corporate Valuation	3
FINM3083	Introduction to Financial Accounting*	3
FINM3103	Money, Banking and Financial Markets	3
FINM3113	Financial Engineering Workshop	3
FINM4005	Final Year Project II (FM)#	3
FINM4013	Design and Analysis of Financial Algorithms	3
FINM4023	Investment Banking	3
FINM4043	Exotic Options and Structured Products	3
FINM4053	Numerical and Simulation Techniques in Finance	3
FINM4063	Stochastic Calculus for Finance	3
MATH3013	Discrete Mathematics	3
MATH3023	The Art of Counting	3
MATH3033	Partial Differential Equations	3
MATH3183	Vector Calculus and Complex Analysis	3
MATH4073	Real Analysis (for FM students)	3
MATH4083	Numerical Analysis	3
MATH4093	Complex Analysis	3
OR2003	Dynamic Programming	3
OR3023	Simulation	3
OR4023	Optimization	3
STAT3043	Data Analysis Using R	3
STAT4073	Data Mining	3

* Students of the Financial Mathematics Programme are not allowed to take FIN3013 Corporate Finance, FIN4023 Financial Risk Management, ECON3013 Applied Econometrics, BUS4013 Strategic Management, ACCT4023 Financial Accounting Theory and FIN3023 Fixed Income Securities which are intended for students of other academic programmes.

\# With the approval of the Programme, students may register this course as a major elective in the second semester of Year 4.