

## Four-Year Study Plan of Financial Mathematics Programme (2022 cohort)

Rev 20220811

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Course Code	Course Title	Year One			Year Two		Year Three		Year Four	
		Sem 1	Sem 2	Summer	Sem 1	Sem 2	Sem 1	Sem 2	Sem 1	Sem 2
I. Major Required Courses (63 Units)										
MATH1053	Linear Algebra I	3								
MATH1073	Calculus I	3								
MATH1063	Linear Algebra II		3							
MATH1083	Calculus II		3							
ACCT2003	Principles of Accounting I		3							
COMP3153	C++ Programming Language				3					
FINM2063	Introduction to Finance				3					
MATH2023	Ordinary and Partial Differential Equations				3					
STAT2063	Probability Theory				3					
COMP3143	Data Structure (for FM Students)					3				
MATH2033	Mathematical Statistics					3				
ECON2103	Microeconomics						3			
FINM3093	Investments						3			
FINM3123	Introduction to Econometrics						3			
FINM3143	Financial Mathematics (for FM Students)						3			
MATH3173	Applied Stochastic Process						3			
ECON2113	Macroeconomics							3		
FINM3033	Risk Management in Finance							3		
FINM3133	Time Series for Finance and Macroeconomics							3		
FINM4073	Advanced Financial Mathematics							3		
FINM4004	Final Year Project I (FM)								3	
II. Major Elective Courses (12 Units)										
ME01 ME02 ME03 ME04						3			6	3 <sup>③</sup>
III. University Core Courses (36 Units)										
UCLC1003	University Chinese	3								
UCLC1013	English for Academic Purposes I	3								
UCLC1023	English for Academic Purposes II		3							
UCLC1033	English for Academic Purposes III					3				
CHII103	Introduction to Modern Social Theories						3			
CHII203	Morality and Foundations of Law				3					
CHII063	Chinese Culture and Modern China					3				
CHII073	Contemporary Chinese Society and Thoughts (Theories)		3							
CHII183	Contemporary Chinese Society and Thoughts (Social Practice)			2						
CHII193	Contemporary World and China <sup>①</sup>					2				
MT1003	Military Training	2								
WPEX1013	Emotional Intelligence		1							
WPEX2013	Experiential Arts <sup>②</sup>					1				
WPEX2023/ WPEX2033	Voluntary Service <sup>②</sup> , or Environmental Awareness <sup>②</sup>				1					
UCHL1XX3	Healthy Lifestyle <sup>②</sup>	1	1			1				
IV. General Education Courses (18 Units)										
Level 1 Foundational Courses	History and Civilization <sup>②</sup>				3					
	Quantitative Reasoning <sup>②</sup>	3								
	Values and the Meaning of Life <sup>②</sup>		3							
Level 2 Interdisciplinary Thematic Courses	Culture, Creativity and Innovation <sup>②</sup> , or Science, Technology and Society <sup>②</sup> , or Sustainable Communities <sup>②</sup>						3	3		
Level 3 GE Capstone Courses	Service-Learning Course <sup>②</sup> , or Service Leadership Education Course <sup>②</sup> , or Experiential Learning Course <sup>②</sup> , or Interdisciplinary Independent Study <sup>②</sup>								3	
V. Free Elective Courses (21 Units)										
FE01 FE02 FE03 FE04 FE05 FE06 FE07		3				3		3	6	6
Total Units: 150		21	20	2	19	22	21	18	18	9

<sup>①</sup> This 2-unit course requires student to attend at least 10 lectures within his/her first two years of study.

<sup>②</sup> 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.

<sup>③</sup> With the approval of the Programme, students may register FINM4005 Final Year Project II (FM) as a major elective in the second semester of Year 4 to complete a year-long (totally 6 units) final year project.

**ME Course List of FM (2022 cohort)**

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Course Code	Course Title	Units
ACCT2013	Principles of Accounting II	3
DS4023	Machine Learning	3
FIN3063	Principles of Corporate Finance*	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
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
FINM4033	Financial Modelling	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
MATH3033	Partial Differential Equations	3
MATH3163	Real Analysis	3
MATH3183	Vector Calculus and Complex Analysis	3
MATH4083	Numerical Analysis	3
OR2003	Dynamic Programming	3
OR3023	Simulation	3
OR4023	Optimization	3
STAT2013	Regression Analysis	3
STAT2023	Advanced Probability	3
STAT3043	Data Analysis Using R	3
STAT4073	Data Mining	3