Four-Year Study Plan of Financial Mathematics Programme (2024 cohort)

Rev 20240724

Course Code	Course Title	Year One		Year Two		Year Three		Year Four	
		Sem 1	Sem 2	Sem 1	Sem 2	Sem 1	Sem 2	Sem 1	Sem 2
I. Major Required Courses (63 Units)									
ACCT2043	Principles of Accounting I	3							
MATH1053	Linear Algebra I	3							
MATH1073	Calculus I	3							
MATH1063	Linear Algebra II		3						
MATH1083	Calculus II		3						
COMP3153	C++ Programming Language			3					
FINM2063	Introduction to Finance			3					
MATH2043	Ordinary Differential Equations			3					
STAT2063	Probability Theory			3					
COMP3283	Data Structure				3				
MATH2033	Mathematical Statistics				3				
ECON2103	Microeconomics④					3			
FINM3093	Investments					3			
FINM3123	Introduction to Econometrics					3			
FINM3143	Financial Mathematics					3			
MATH3173	Applied Stochastic Process					3			
ECON2113	Macroeconomics④						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	3③
III. University Core Courses (37 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				
CHI1103	Introduction to Modern Social Theories					3			
CHI1203	Morality and Foundations of Law			3					
CHI1063	Chinese Culture and Modern China				3				
CHI1073	Contemporary Chinese Society and Thought I		3						
CHI1253	Contemporary Chinese Society and Thought II		3						
CHI1193	Contemporary World and China①				2				
MT1003	Military Training	2							
WPEX1013	Emotional Intelligence		1						
WPEX2013	Experiential Arts②				1				
WPEX2023/ WPEX2033	Voluntary Service②, or Environmental Awareness②			1					
UCHL1XX3	Healthy Lifestyle②	1	1		1				
IV. General Education Courses (18 Units)									
Level 1 Foundational Courses	History and Civilization②			3					
	Quantitative Reasoning②	3							
	Values and the Meaning of Life⑤		3						
Level 2 Interdisciplinary Thematic Courses	Culture, Creativity and Innovation②, or Science, Technology and Society②, or Sustainable Communities②					3	3		
Level 3 GE Capstone Courses	Service-Learning Course②, or Service Leadership Education Course②, or Experiential Learning Course②, or Interdisciplinary Independent Study②							3	
V. Free Elective Courses (21 Units)									
FE01 FE02 FE03 FE04 FE05 FE06 FE07			3		3		3	6	6
Total Units: 151		**21**	**23**	**19**	**22**	**21**	**18**	**18**	**9**

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

② 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.

③ 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.

④Students 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.

⑤Students are required to take GFVM1033 Ethics in An Era of Artificial Intelligence and Robotics or GFVM1043 Ethics in Daily Life and Life Sciences under this category.

ME Course List of FM (2024 cohort)

Rev 20250512

Course Code	Course Title	Units
ACCT2053	Principles of Accounting II	3
DS4023	Machine Learning	3
FIN3063	Principles of Corporate Finance*	3
FINM2023	Regression Analysis (for FM Students)	3
FINM2033	Python for Finance	3
FINM2073	Introduction to Python for Mathematical Computing	3
FINM3013	Introduction to Financial Derivatives	3
FINM3023	Fixed Income Securities and Their Derivatives	3
FINM3043	Behavioural Finance	3
FINM3063	International Finance	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
MATH4093	Complex 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

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

^ Students can take no more than one course from either MATH3183 Vector Calculus and Complex Analysis or MATH4093 Complex Analysis.