

Four-Year Study Plan of Statistics Programme (2025 cohort)

Rev 20250512

Course Code	Course Title	Year One			Year Two			Year Three		Year Four	
		Sem 1	Winter	Sem 2	Sem 1	Sem 2	Summer	Sem 1	Sem 2	Sem 1	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							
STAT1033	Foundations of Probability Theory			3							
COMP1023	Foundations of C Programming				3						
OR4023	Optimization				3						
STAT2003	Advanced Statistics				3						
STAT2013	Regression Analysis					3					
STAT3043	Data Analysis Using R					3					
MATH3173	Applied Stochastic Process						3				
STAT3073	Statistical Computing						3				
STAT4013	Multivariate Analysis						3				
MATH4063	Case Studies in Mathematical Modelling							3			
STAT4043	Categorical Data Analysis							3			
STAT4063	Time Series Analysis							3			
MATH3163	Real Analysis									3	
STAT4004	Final Year Project I (STAT)									3	
II. Major Elective Courses (18 Units)											
ME01 ME02 ME03 ME04 ME05 ME06						3		3	3	6	3 ^③
III. University Core Courses (37 Units)											
UCLC1003	University Chinese			3							
UCLC1013	English for Academic Purposes I	3									
UCLC1023	English for Academic Purposes II			3							
UCAI1003	Introduction to AI Literacy	3									
CHII103	Introduction to Modern Social Theories				3						
CHII1203	Morality and Foundations of Law			3							
CHII063	Chinese Culture and Modern China					3					
CHII1073	Contemporary Chinese Society and Thought I	3									
CHII1253	Contemporary Chinese Society and Thought II					3					
CHII1193	Contemporary World and China ^①						2				
MT1003	Military Training		2								
WPEX1013	Emotional Intelligence			1							
WPEX2013	Experiential Arts ^②					1					
WPEX2023/ WPEX2033	Voluntary Service ^② , or Environmental Awareness ^②				1						
UHL1XX3	Healthy Lifestyle ^②	1		1		1					
IV. General Education Courses (18 Units)											
Level 1	History and Civilization ^②				3						
Foundational Courses	Quantitative Reasoning ^②	3									
	Values and the Meaning of Life ^②			3							
Level 2 Interdisciplinary Thematic Courses	Culture, Creativity and Innovation ^② , or Science, Technology and Society ^② , or Sustainable Communities ^②							3	3		
Level 3 GE Capstone Courses	Service-Learning Course ^② , or Service Leadership Education Course ^② , or Experiential Learning Course ^② , or Interdisciplinary Independent Study ^②								3		
V. Free Elective Courses (24 Units)											
FE01 FE02 FE03 FE04 FE05 FE06 FE07 FE08					3	3		6		6	6
Total Units: 151		19	2	23	19	20	2	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 Students who continue with the final year project in the second semester of Year 4 should register STAT4005 Final Year Project II (STAT) as a major elective during the Online Course Selection (or Course Add/Drop) period.

^④ Students 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.

Four-Year Study Plan of Math plus Statistics Programme (2025 cohort)

Rev 20260302

Course Code	Course Title	Year One			Year Two			Year Three		Year Four	
		Sem 1	Winter	Sem 2	Sem 1	Sem 2	Summer	Sem 1	Sem 2	Sem 1	Sem 2
I. Major Required Courses (54 Units)											
COMP1023 ^{Ⓞ*}	Foundations of C Programming	3									
MATH1053 ^{Ⓞ*}	Linear Algebra I	3									
MATH1073 ^{Ⓞ*}	Calculus I	3									
MATH1063 ^{Ⓞ*}	Linear Algebra II			3							
MATH1083 ^{Ⓞ*}	Calculus II			3							
OR4023	Optimization				3						
STAT2003	Advanced Statistics				3						
STAT2063 ^{Ⓞ*}	Probability Theory				3						
STAT2013	Regression Analysis					3					
STAT3043	Data Analysis Using R					3					
MATH3173	Applied Stochastic Process						3				
STAT3073	Statistical Computing						3				
STAT4013	Multivariate Analysis						3				
MATH4063	Case Studies in Mathematical Modelling							3			
STAT4043	Categorical Data Analysis							3			
STAT4063	Time Series Analysis							3			
MATH3163	Real Analysis								3		
STAT4004 ^{Ⓞ*}	Final Year Project I (STAT)									3	
II. Major Elective Courses (18 Units)											
ME01 ME02 ME03 ME04 ME05 ME06						3		3	3	6	3 ^{Ⓞ*}
III. University Core Courses (37 Units)											
UCLC1003	University Chinese			3							
UCLC1013	English for Academic Purposes I	3									
UCLC1023	English for Academic Purposes II			3							
UCAI1003	Introduction to AI Literacy	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 Thought I	3									
CHII253	Contemporary Chinese Society and Thought II					3					
CHII193	Contemporary World and China ^①						2				
MT1003	Military Training		2								
WPEX1013	Emotional Intelligence			1							
WPEX2013	Experiential Arts ^②					1					
WPEX2023/ WPEX2033	Voluntary Service ^② , or Environmental Awareness ^②				1						
UHL1XX3	Healthy Lifestyle ^②	1		1		1					
IV. General Education Courses (18 Units)											
Level 1 Foundational Courses	History and Civilization ^③				3						
	Quantitative Reasoning ^③			3							
	Values and the Meaning of Life ^③			3							
Level 2 Interdisciplinary Thematic Courses	Culture, Creativity and Innovation ^③ , or Science, Technology and Society ^③ , or Sustainable Communities ^③							3	3		
Level 3 GE Capstone Courses	Service-Learning Course ^③ , or Service Leadership Education Course ^③ , or Experiential Learning Course ^③ , or Interdisciplinary Independent Study ^③								3		
V. Free Elective Courses (24 Units)											
FE01 FE02 FE03 FE04 FE05 FE06 FE07 FE08					3	3		6		6	6
Total Units: 151		19	2	23	19	20	2	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 Students 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.

*** Common Core Course (Required) - CCR**

① Students are required to take COMP1023 Foundations of C Programming under MR.

② Students are required to take MATH1053 Linear Algebra I under MR.

③ Students are required to take MATH1073 Calculus I under MR.

④ Students are required to take MATH1063 Linear Algebra II under MR.

⑤ Students are required to take MATH1083 Calculus II under MR.

⑥ Students are required to take STAT2063 Probability Theory under MR.

⑦ Students are required to take STAT4004 Final Year Project I (STAT) under MR.

⑧ Students are required to take STAT4005 Final Year Project II (STAT) under ME.

Common Core Course (Elective) - CCE:

The CCE courses listed below are strongly recommended for students of the Math plus Statistics Programme.

AI3133	Natural Language Processing	FE
MATH2043	Ordinary Differential Equations	FE
MATH3033	Partial Differential Equations	FE
COMP4163	Neural Networks and Deep Learning	ME
STAT3033	Bayesian Statistics	ME
STAT4073	Data Mining	ME

ME Course List of STAT (2025 cohort)

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Course Code	Course Title	Units
COMP2003	Data Structures and Algorithms	3
COMP3013	Database Management Systems	3
COMP4163	Neural Networks and Deep Learning	3
DS4023	Machine Learning	3
DS4033	Text Mining and Analytics	3
DS4053	Introduction to Bioinformatics	3
MATH2013#	Introduction to Mathematical Finance	3
MATH4003	Graph Theory	3
MATH4023	Differential Equation	3
MATH4033#	Computational Finance	3
MATH4043#	Actuarial Mathematics	3
MATH4053	Numerical Methods	3
OR3003	Logistics	3
OR3013	Linear Programming and Integer Programming	3
OR4003	Dynamic Programming Inventory Control	3
OR4013	Advanced Topics in Operations Research	3
OR4033	Network and Transportation Models	3
STAT3003	Survey Sampling	3
STAT3013#	Life Contingencies	3
STAT3023	Quality Control - Six Sigma	3
STAT3033	Bayesian Statistics	3
STAT4003	Experimental Design	3
STAT4005*	Final Year Project II (STAT)	3
STAT4023#	Loss Models	3
STAT4033	Structural Equation Modelling	3
STAT4053	Survival Analysis	3
STAT4073	Data Mining	3
STAT4103	Introduction to Deep Learning with Python	3
STAT4113	Nonparametric Statistics	3

* Except for the Math plus Statistics Programme, students who continue with the final year project in the second semester of Year 4 should, with the approval of the Programme, register STAT4005 Final Year Project II (STAT) as a major elective in that semester.

Actuarial science course.