Four-Year Study Plan of Statistics Programme (2022 cohort)

Rev 20231106

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 (54 Units)									
MATH1053	Linear Algebra I	3							
MATH1073	Calculus I	3							
MATH1063	Linear Algebra II		3						
MATH1083	Calculus II		3						
COMP1023	Foundations of C Programming			3					
STAT2003	Advanced Statistics			3					
STAT2023	Advanced Probability			3					
OR4023	Optimization				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	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 Life④		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 (24 Units)									
FE01 FE02 FE03 FE04 FE05 FE06 FE07 FE08			3	3		6	3	3	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 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.

ME Course List of STAT (2022 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

* Actuarial science course.

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.