Four-Year Study Plan of Artificial Intelligence Programme (2022 cohort)

Rev 20231214

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)									
AI1003	Python Programming	3							
MATH1003	Linear Algebra	3							
MATH1123	Calculus for Science and Engineering	3							
AI1013	Object-Oriented Programming		3						
AI1023	Database Management Systems		3						
AI1033	Introduction to Computer Systems		3						
AI2003	Data Structures and Algorithm Analysis			3					
AI2013	Introduction to Artificial Intelligence			3					
AI2033	Probability and Statistics			3					
MATH2003	Discrete Structures			3					
AI2023	Artificial Intelligence Workshop				3				
AI2043	Operating Systems				3				
AI3013	Machine Learning				3				
AI3003	Neural Networks and Deep Learning					3			
AI3023	Machine Learning Workshop					3			
AI3043	Bayesian Networks						3		
AI4003	Optimization for Machine Learning						3		
AI4004	Final Year Project I (AI)③							3	
~~AI4005~~	~~Final Year Project II (AI)③~~								~~3~~
II. Major Elective Courses (21 Units)									
ME01 ME02 ME03 ME04 ME05 ME06 ME07						6	~~9~~ 6	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						
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				3⑤	3⑤			
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 (18 Units)									
FE01 FE02 FE03 FE04 FE05 FE06						3	6	6	3
Total Units: 148		**21**	**23**	**19**	**22**	**21**	**18**	**15**	**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 If students select a specific concentration, they must complete the final year's project for the specific concentration, i.e., students from AI in Business and Finance Concentration are required to complete a project using AI to solve a problem in Business and Finance, students from AI in Multimedia Concentration are required to complete a project using AI to solve a problem in Multimedia.

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.

⑤ Students are not allowed to take GTSC2093 IT for Success in Everyday Life and Work under this category.

ME Course List of AI (2022 cohort)

Rev 20241202

Code	Course Title	Units
AI2053	Introduction to Cognitive Science	3
AI2063	Game Theory	3
~~AI2073~~	~~Perception~~	~~3~~
AI3033	Introduction to Robotics	3
~~AI3043~~	~~Bayesian Networks~~	~~3~~
AI3053	Intelligent Agent Technology	3
AI3063	Neuroscience in Artificial Intelligence	3
AI3073	Introduction to Bioinformatics	3
~~AI3083~~	~~Artificial Intelligence Project~~	~~3~~
AI3093	Decision Theory	3
AI3103	Regression Analysis	3
AI3113	Speech Processing and Recognition	3
AI3123	Digital Image Processing	3
AI3133	Natural Language Processing	3
AI3143	Computer Vision	3
AI3153	Human-Computer Interaction	3
AI4005	Final Year Project II (AI)#	3
AI4013	Knowledge Graph Engineering	3
AI4023	Deep Reinforcement Learning	3
AI4033	Large-Scale Distributed Multi-Agent Systems	3
~~AI4043~~	~~Artificial Intelligence Internship~~	~~3~~
AI4053	Fintech	3
AI4063	Pattern Recognition	3
AI4083	Multimedia Mining and Analytics	3
AI4093	Design and Implementation of Intelligent Vision System	3
COMP3023	Design and Analysis of Algorithms	3
COMP3263	Intelligent Internet of Things	3
COMP3273	5G Networks and Mobile Computing	3
COMP4003	Theory of Computation	3
COMP4043	Data Mining and Knowledge Discovery	3
COMP4153	Quantum Finance and Intelligent Financial Trading Systems	3
COMP4243	Mathematical and Computing Methods	3
COMP4253	AI-Generated Content	3
DS4073	Introduction to Data Visualisation	3
DS4083	Big Data Analytics	3
DS4093	Introduction to Recommender System	3
MATH1153	Applied Linear Algebra and Linear Dynamics	3
MATH1163	Advanced Calculus	3
MATH3153	Advanced Probability	3
PHYS2003	Principles of Physics	3
STAT4013	Multivariate Analysis	3

Students who continue with the fianl year project in the second semester of Year 4 should register AI4005 Final Year Project II (AI) as a major elective during the Online Course Selection (or Course Add/Drop) period.