

# Four-Year Study Plan of Computer Science and Technology Programme (2020 cohort)

Rev 20230911

REV 2023/09/11

Course Code	Course Title	Year One			Year Two		Year Three		Year Four	
		Sem 1	Sem 2	Summer/ Winter	Sem 1	Sem 2	Sem 1	Sem 2	Sem 1	Sem 2
I. Major Required Courses (42 Units)										
MATH1003	Linear Algebra	3								
MATH1073	Calculus I	3								
COMP2013	Object-Oriented Programming		3							
COMP2023	Software Development Workshop I		1							
MATH2003	Discrete Structures		3							
COMP1003	Computer Organisation				3					
COMP2003	Data Structures and Algorithms				3					
COMP3013	Database Management Systems				3					
COMP3043	Software Development Workshop II				1					
COMP3003	Data Communications and Networking					3				
COMP3023	Design and Analysis of Algorithms					3				
COMP3033	Operating Systems					3				
COMP3203	Introduction to Machine Learning						3			
COMP3053	Software Development Workshop III							1		
COMP3063	Software Engineering							3		
COMP4004	Final Year Project I (COMP)								3	
II. Major Elective Courses (18 Units)										
ME01 ME02 ME03 ME04 ME05 ME06							6	3	6	3 <sup>⓪</sup>
III. General Education Core Courses (32 Units)										
CHII053	University Chinese (Morality and Foundations of Law)	3								
CHII063	Chinese Culture and Modern China					3				
CHII073	Contemporary Chinese Society and Thoughts (Theories)							3		
CHII083	Contemporary Chinese Society and Thoughts (Social Practice)							0		
CHII093	Contemporary World and China <sup>⓪</sup>					0				
GCLA1903	English I	3								
GCLA1913	English II		3							
GCLA1923	English III				3					
GCLA1933	English IV					3				
GCIT1XX3	Information Management Technology <sup>⓪</sup>	3								
GCNU1XX3	Numeracy <sup>⓪</sup>		3							
GCPE1XX3	Physical Education <sup>⓪</sup>	1	1							
GCVMI013	Applied Ethics in Science and Technology				3					
IV. General Education Distribution Courses (12 Units)										
GDBM1XX3	Foundation Course in Business and Management <sup>⓪</sup>		3							
GDHS1XX3	Foundation Course in Humanities and Social Sciences <sup>⓪</sup>					3				
GDFL1XX3	Foundation Course in Foreign Language <sup>⓪</sup>						3			
GDHC1XX3	Foundation Course in World History and Civilisation <sup>⓪</sup>				3					
V. Whole Person Education Experiential Learning Modules (4 Units)										
WPEX Module I	WPEX1003 Experiential Development	1								
WPEX Module II	WPEX1013 Emotional Intelligence		1							
WPEX Module III	WPEX2003 Sports Culture <sup>⓪</sup> , or WPEX2013 Experiential Arts <sup>⓪</sup>				1					
WPEX Module IV	WPEX2023 Voluntary Service <sup>⓪</sup> , or WPEX2033 Environmental Awareness <sup>⓪</sup>					1				
VI. Free Elective Courses (24 Units)										
FE01 FE02 FE03 FE04 FE05 FE06 FE07 FE08				3 <sup>⓪</sup>			6 <sup>⓪</sup>	9	6	
Total Units: 132		17	18	3	20	19	18	19	15	3

⓪ 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.

⓪ This course will take the form of lecture series. Students are required to attend and submit notes for at least 10 lectures within their first two years of study.

⓪ CHI1103 Introduction to Modern Social Theories will be offered under this category.

⓪ Students should take one FE(ENG) course under this category.

⓪ Students who continue with the final year project in the second semester of Year 4 should register COMP4005 Final Year Project II (COMP) as a major elective during the Online Course Selection (or Course Add/Drop) period.

**ME Course List of CST (2020 cohort)**

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Course Code	Course Title	Units
<b>Data Analytic Technology Stream</b>		
COMP3083	Numerical Computation	3
COMP3173	Compiler Construction	3
COMP3193	Cloud Computing	3
COMP3213	Internet of Things	3
COMP3223	Mobile Computing	3
COMP4003	Theory of Computation	3
COMP4023	Computer and Network Security	3
COMP4043	Data Mining and Knowledge Discovery	3
COMP4053	Database System Implementation	3
COMP4063	Digital Media Computing	3
COMP4073	Distributed Computing Systems	3
COMP4083	E-technology Architectures, Tools and Applications	3
COMP4093	Internet and the World Wide Web	3
COMP4103	Artificial Intelligence and Machine Learning	3
COMP4123	Information Retrieval and Search Engine	3
COMP4143	Introduction to Web Intelligence	3
COMP4153	Quantum Finance and Intelligent Financial Trading Systems	3
COMP4163	Neural Networks and Deep Learning	3
COMP4173	Digital Image Processing	3
COMP4213	Wireless Communication and Mobile Computing	3
DS4033	Text Mining and Analytics	3
DS4043	Introduction to Statistical Computing	3
DS4053	Introduction to Bioinformatics	3
DS4063	Social Computing	3
DS4073	Introduction to Data Visualisation	3
STAT3003	Survey Sampling	3
STAT4013	Multivariate Analysis	3
<b>Digital Media Communication Technology Stream</b>		
COMP3083	Numerical Computation	3
COMP3173	Compiler Construction	3
COMP3193	Cloud Computing	3
COMP3233	Video Game Programming	3
COMP4003	Theory of Computation	3
COMP4023	Computer and Network Security	3
COMP4033	Computer Graphics	3
COMP4043	Data Mining and Knowledge Discovery	3
COMP4053	Database System Implementation	3
COMP4063	Digital Media Computing	3
COMP4073	Distributed Computing Systems	3
COMP4093	Internet and the World Wide Web	3
COMP4113	Computer Vision and Pattern Recognition	3
COMP4153	Quantum Finance and Intelligent Financial Trading Systems	3
COMP4163	Neural Networks and Deep Learning	3
COMP4173	Digital Image Processing	3
COMP4183	Game Engine Design	3
COMP4193	Multiplayer Games and Accessories	3
DS3023	Digital Logic Design	3
DS4033	Text Mining and Analytics	3
DS4043	Introduction to Statistical Computing	3
DS4053	Introduction to Bioinformatics	3
DS4063	Social Computing	3
DS4073	Introduction to Data Visualisation	3
GCAP3123	Computer Technology and AI Project	3
STAT3003	Survey Sampling	3
STAT4013	Multivariate Analysis	3
<b>Other Common Major Elective Courses</b>		

AI3133	Natural Language Processing	3
COMP3073	Introduction to Robotics	3
COMP3103	Design Patterns	3
COMP3123	Software Testing	3
COMP3163	Mobile Application Development	3
COMP3183	Financial Computing	3
COMP4003	Theory of Computation	3
COMP4005	Final Year Project II (COMP)*	3
COMP4133	System Analysis and Design	3
COMP4203	Linear Systems	3
DS3053	Requirements Engineering for Data Science Projects	3
DS4083	Big Data Analytics	3
DS4093	Introduction to Recommender System	3
MATH1083	Calculus II	3

Note:

Students are required to take 6 major elective courses (18 units). Out of the 6 major electives, at least 4 courses (12 units) should be selected from one of the following streams: Data Analytic Technology or Digital Media Communication Technology.

\* Students who continue with the final year project in the second semester of Year 4 should register COMP4005 Final Year Project II (COMP) as a major elective during the Online Course Selection (or Course Add/Drop) period.