CURRICULUM FOR COMPUTER SCIENCE
WITH CN YANG SCHOLARS PROGRAMME
SECOND MAJOR IN SUSTAINABILITY (CSSN)
(FIRST YEAR ADMISSION)
AY2025 Intake Onwards

SUMMARY OF ACADEMIC UNIT REQUIREMENT								
Year of Study	Major Requirements			Interdisciplinary Collaborative Core			BDE	Total AU
	School Core	CNYSP-Core	MPE	CC	Professional Series	Care, Serve, Learn		
1	6	27 [3]	0	4	3	0	6	46 [3]
2	21	10	0	6	0	3	3	43
3	16	0	12	0	6	0	12	46
4	8	0	12	0	0	0	6	26
Total	51	37 [3]	24	10	9	3	27	161 [3]

[ ] AU of courses that could be used to fulfil Core/MPE requirement and second major requirement concurrently

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY1001	Cell	CNY-Core	3	CNYSP Courses
CY1101	Molecule	CNY-Core	4	
CY1308	Physics	CNY-Core	3	
CY1500	Introduction to Research	CNY-Core	2	
CY1601	Mathematics I	CNY-Core	4	
SC1003	Introduction to Computational Thinking and Programming	PS	3	
CC0015	Healthy Living & Mental Wellbeing in an Aging Society	CC	2	
			21	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY1007^	Climate Change	CNY-Core	3	**Double-counted as Planet Core**
CY1602	Mathematics II	CNY-Core	4	CNYSP Course
SC1005	Logic Design	C	3	
SC1007	Data Structures and Algorithms	C	3	SC1003
	Second Major Compulsory Course 2	BDE	3	Please see attached list of core courses to choose from
	Second Major Compulsory Course 3	BDE	3	
ML0004	Career Design & Workplace Readiness in the V.U.C.A World	CC	2	
			21	

YEAR 1 SPECIAL SEMESTER				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY2003	Research Attachment 3	CNY-Core	4	CNYSP Course
	Overseas Learning Trip			
			4	

YEAR 2 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY0001	Writing Across the Disciplines	CNY-Core	3	CNYSP Course
SC1006	Computer Organisation & Architecture	C	3	SC1005
SC1008	C and C++ Programming	C	3	SC1003
SC2000	Probability and Statistics for Computing	C	3	
MH1812	Discrete Mathematics	C	3	
SP0061	Science & Technology for Humanity	CC	3	
	Tech-For-Good (T4G)	CSL	3	Replaces Care, Serve, Learn
			21	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY0002	Ethics	CNY-Core	3	CNYSP Course
CY2001	Research Attachment 1	CNY-Core	4	CNYSP Course 2-semester long, course registered only in Sem 2 (similar to URECA)
SC2001	Algorithm Design and Analysis	C	3	
SC2002	Object Oriented Design & Programming	C	3	
SC2005	Operating Systems	C	3	
CC0006	Sustainability: Society, Economy & Environment	CC	3	
	Second Major Compulsory Course 4	BDE	3	Please see attached list of core courses to choose from

			22	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
SC2006	Software Engineering	C	3	
SC2203	Automata. Computability and Complexity	C	3	SC2001
SC2207	Introduction to Databases	C	3	
SC2008	Computer Networks	C	3	
SC2079	Multidisciplinary Design Project	C	4	
	SN Elective 1	BDE	3	Please see attached list of electives to choose from
	SN Elective 2	BDE	3	
			22	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
SC3XXX/SC4XXX	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE	3	Year 3 Standing
SC3XXX/SC4XXX	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE	3	Year 3 Standing
SC3XXX/SC4XXX	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE	3	Year 3 Standing
SC3XXX/SC4XXX	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE	3	Year 3 Standing
	Second Major Compulsory Course 5	BDE	3	Please see attached list of core courses to choose from
	SN Elective 3	BDE	3	Please see attached list of electives to choose from
MLXXXX	Profession Preparation	PS	1	
			19	

YEAR 3 SPECIAL SEMESTER				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
SC3910	Professional Attachment	PS	5	
			5	

YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
SC4211	CNYSP Overseas Final Year Project	C	8	CNYSP Course
			8	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
SC4XXX	Major Prescribe Elective (Choose within SC4xxx)	MPE	3	Year 3 Standing
SC4XXX	Major Prescribe Elective (Choose within SC4xxx)	MPE	3	Year 3 Standing
SC4XXX	Major Prescribe Elective (Choose within SC4xxx)	MPE	3	Year 3 Standing
SC4XXX	Major Prescribe Elective (Choose within SC4xxx)	MPE	3	Year 3 Standing
	SN Elective 4	BDE	3	Please see attached list of electives to choose from
	Second Major Interdisciplinary Project	BDE	3	
			18	
	Total AU for Graduation:		161	

^ These courses are double-counted towards both CSC as well as the Second Major in Sustainability.

Compulsory Courses and Electives for Second Major in Sustainability
https://www.ntu.edu.sg/ase/admissions/undergraduate-programmes/second-major-in-sustainability#Content_C002_Col00