

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

SUMMARY OF ACADEMIC UNIT REQUIREMENT								
Year of Study	Major Requirements			Interdisciplinary Collaborative Core			BDE	Total AU
	School Core	CNYS-Core	MPE	CC	Professional Series	Care, Serve, Learn		
1	6	27 [3]	0	4	3	0	6	46 [3]
2	21	6	0	6	0	3	7	43
3	16	0	12	0	6	0	12	46
4	8	0	12	0	0	0	6	26
Total	51	33 [3]	24	10	9	3	31	161 [3]

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

YEAR 1 SEMESTER 1					
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks	
CY1001	Cell	CNY-Core	3	CNYS 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	CNYS 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	CNYS 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	CNYS Course	
SC5915	Undergraduate Research	BDE	IP	Course will be registered in Semester 2. Grades will be recorded at the end of Semester 2	
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		
NH0001	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	CNYS Course	
SC5915	Undergraduate Research	BDE	4	2-semester long, course registered only in Sem 2	
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	
			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	
SC3099	Capstone 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
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
	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