

**CURRICULUM FOR COMPUTER SCIENCE
WITH CN YANG SCHOLARS PROGRAMME
(FIRST YEAR ADMISSION)
AY2025 Intake**

SUMMARY OF ACADEMIC UNIT REQUIREMENT								
Year of Study	Major Requirements			Interdisciplinary Collaborative Core			BDE	Total AU
	School Core	CNYS-SP-Core	MPE	CC	Professional Series	Care, Serve, Learn		
1	9	27	0	4	3	0	3	46
2	18	6	0	6	0	3	4	37
3	16	0	12	0	6	0	0	34
4	8	0	12	0	0	0	2	22
Total	51	33	24	10	9	3	9	139

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY1001	Cell	CNY-Core	3	CNYS-SP 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 & Wellbeing	CC	2	
			21	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY1007	Climate Change	CNY-Core	3	CNYS-SP Courses
CY1602	Mathematics II	CNY-Core	4	
SC1005	Digital Logic	C	3	
SC1006	Computer Organisation & Architecture	C	3	SC1005 (co-requisite)
SC1007	Data Structures and Algorithms	C	3	SC1003
ML0004	Career Design & Workplace Readiness in the V.U.C.A World	CC	2	
XXXXXX	Broadening and Deepening Elective 1	BDE	3	
			21	

YEAR 1 SPECIAL SEMESTER				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY2003	Research Attachment 3	CNY-Core	4	CNYS-SP 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-SP Course
SC5915	Undergraduate Research	BDE	IP	Course will be registered in Semester 2. Grades will be recorded at the end of Semester 2
SC1008	C and C++ Programming	C	3	SC1003
SC2000	Probability and Statistics for Computing	C	3	
SC2002	Object Oriented Design & Programming	C	3	SC1003 OR SC1007
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-SP Course
SC5915	Undergraduate Research	BDE	4	2-semester long, course registered only in Sem 2 (similar to URECA)
SC2001	Algorithm Design and Analysis	C	3	SC1007 & MH1812
SC2005	Operating Systems	C	3	SC1006 & SC1007
CC0006	Sustainability: Society, Economy & Environment	CC	3	
			16	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
SC2006	Software Engineering	C	3	SC2002
SC2008	Computer Networks	C	3	SC2000 & SC1004
SC2203	Automata, Computability and Complexity	C	3	SC2001
SC2207	Introduction to Databases	C	3	SC2001
SC3XXX/SC4XXX	Major Prescribe Elective (Choose within SC3xxx/SC4xxx)	MPE	3	Year 3 Standing
MLXXXX	Profession Preparation	PS	1	
			16	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
SC3099	Capstone Project	C	4	SC2001 & SC2006
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
			13	

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
XXXXXX	Broadening and Deepening Elective 2	BDE	2	
			14	
Total AU for Graduation:			139	

Important Note:

1. Students are required to complete **8 Major Prescribed Electives (MPE) courses** (SC3xxx or SC4xxx), including **at least 4 at the SC4xxx level**.

MPE Structure for Computer Science			
Course Code	Type	AU	Remarks
SC3xxx/SC4xxx	MPE-1	3	Any MPE (Choose within SC3xxx/SC4xxx)
SC3xxx/SC4xxx	MPE-2	3	Any MPE (Choose within SC3xxx/SC4xxx)
SC3xxx/SC4xxx	MPE-3	3	Any MPE (Choose within SC3xxx/SC4xxx)
SC3xxx/SC4xxx	MPE-4	3	Any MPE (Choose within SC3xxx/SC4xxx)
SC4xxx	MPE-5	3	MPE (Choose within SC4xxx)
SC4xxx	MPE-6	3	MPE (Choose within SC4xxx)
SC4xxx	MPE-7	3	MPE (Choose within SC4xxx)
SC4xxx	MPE-8	3	MPE (Choose within SC4xxx)
	Total	24	
Please refer the CSC MPE Courses and Specialisation on CCDS intranet.			