

**AY2021-22 CURRICULUM FOR COMPUTER SCIENCE
WITH CN YANG SCHOLARS PROGRAMME
(FIRST YEAR ADMISSION)**

Last Updated : 18-Oct-21

SUMMARY OF ACADEMIC UNIT REQUIREMENT							
Year of Study	School Core	CNYS-PCore	MPE	CC	FC	BDE	Total AU
1	6	27	0	5	3	0	41
2	21	10	0	8	0	3	42
3	15	0	12	0	5	0	32
4	8	0	12	0	0	3	23
Total	50	37	24	13	8	6	138

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY1001	Cell	CNY-Core	3	CNYS-PCore 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	C	3	
CC0005	Healthy Living & Mental Wellbeing in an Aging Society	CC	3	
			22	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY1007	Climate Change	CNY-Core	3	CNYS-PCore Courses
CY1602	Mathematics II	CNY-Core	4	
SC1005	Logic Design	C	3	
SC1015	Introduction to Data Science and Artificial Intelligence	FC	3	
DL0001	Navigating the Digital World	CC	2	
			15	

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

YEAR 2 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY2001	Research Attachment 1	CNY-Core	2	CNYS-PCore Courses
CY0002	Ethics	CNY-Core	3	
CY1307	Quantum	BDE	3	Students can choose to opt out and replace with any other BDE course (3 AU)
SC1006	Computer Organisation & Architecture	C	3	
SC1007	Data Structures and Algorithms	C	3	
MH1812	Discrete Mathematics	C	3	
CC0007	Science & Technology for Humanity	CC	3	
			20	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY0001	Writing Across the Disciplines	CNY-Core	3	CNYS-PCore Courses
CY2001	Research Attachment 1	CNY-Core	2	
SC2000	Probability and Statistics for Computing	C	3	
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	
ML0004	Career and Entrepreneurial Development for the Future World	CC	2	
			22	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
SC2006	Software Engineering	C	3	
SC2207	Introduction to Databases	C	3	
SC2008	Computer Networks	C	3	
SC2079	Multidisciplinary Design Project	C	4	
EG1001	Engineers in Society	C	2	
			15	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
SC3000	Artificial Intelligence	MPE	3	
SC3010	Computer Security	MPE	3	
SC3XXX	Major PE1 3	MPE	3	
SC3XXX	Major PE1 4	MPE	3	
			12	

YEAR 3 SPECIAL SEMESTER				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
SC3080	Professional Attachment	FC	5	
			5	

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

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
SC4XXX	Major PE2 1	MPE	3	
SC4XXX	Major PE2 2	MPE	3	
SC4XXX	Major PE2 3	MPE	3	
SC4XXX	Major PE2 4	MPE	3	
XXXXXX	Broadening and Deepening Elective 1	BDE	3	
			15	

Total AU for Graduation: **138**