

**AY2023-24 CURRICULUM FOR COMPUTER ENGINEERING
WITH CN YANG SCHOLARS PROGRAMME
(FIRST YEAR ADMISSION)**

Last Updated : 29-May-23

SUMMARY OF ACADEMIC UNIT REQUIREMENT							
Year of Study	School Core	CNYSP-Core	MPE	CC	FC	BDE	Total AU
1	6	27	0	5	3	0	41
2	21	10	0	8	0	3	42
3	27	0	0	0	5	0	32
4	8	0	12	0	0	3	23
Total	62	37	12	13	8	6	138

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
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	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
CY1007	Climate Change	CNY-Core	3	CNYSP Courses
CY1602	Mathematics II	CNY-Core	4	
SC1005	Logic Design	C	3	
SC1015	Introduction to Data Science and Artificial Intelligence	FC	3	
CC0002	Navigating the Digital World	CC	2	
			15	

YEAR 1 SPECIAL SEMESTER				
Course Code	Course Title	Type	AU	Pre-Requisite
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
CY0001	Writing Across the Disciplines	CNY-Core	3	CNYSP Course
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	
SP0061	Science & Technology for Humanity	CC	3	
			18	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
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)
SC2000	Probability and Statistics for Computing	C	3	
SC2001	Algorithm Design and Analysis	C	3	
SC2002	Object Oriented Design & Programming	C	3	
SC2103	Digital System Design	C	3	
CC0006	Sustainability: Society, Economy & Environment	CC	3	
ML0004	Career and Entrepreneurial Development for the Future World	CC	2	
			24	

YEAR 3 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-Requisite
SC2104	Sensors, Interfacing & Digital Control	C	3	
SC2107	Microprocessor System Design and Development	C	3	
SC2005	Operating Systems	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
SC2006	Software Engineering	C	3	
SC2008	Computer Networks	C	3	
SC3102	Signal, Systems and Transform	C	3	
SC3103	Embedded Programming	C	3	
			12	

YEAR 3 SPECIAL SEMESTER

Course Code	Course Title	Type	AU	Pre-Requisite
SC3080	Professional Attachment	FC	5	
			5	

YEAR 4 SEMESTER 1

Course Code	Course Title	Type	AU	Pre-Requisite
SC4211	CNYSP Overseas Final Year Project	C	8	CNYSP Course
			8	

YEAR 4 SEMESTER 2

Course Code	Course Title	Type	AU	Pre-Requisite
SC4XXX	Major PE 1	MPE	3	
SC4XXX	Major PE 2	MPE	3	
SC4XXX	Major PE 3	MPE	3	
SC4XXX	Major PE 4	MPE	3	
XXXXXX	Broadening and Deepening Elective 1	BDE	3	
			15	

Total AU for Graduation: **138**