

**AY2024-25 CURRICULUM FOR COMPUTER ENGINEERING
WITH CN YANG SCHOLARS PROGRAMME
(FIRST YEAR ADMISSION)**

Last Updated : 3-Jul-24

SUMMARY OF ACADEMIC UNIT REQUIREMENT							
Year of Study	School Core	CNYS Core	MPE	CC	FC	BDE	Total AU
1	9	27	0	5	3	3	47
2	18	10	0	8	0	0	36
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	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	FC	3	
CC0005	Healthy Living & Wellbeing	CC	3	
			22	

Change in course type from Core to FC

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
CY1007	Climate Change	CNY-Core	3	CNYS Courses
CY1602	Mathematics II	CNY-Core	4	
SC1005	Logic Design	C	3	
SC1006	Computer Organisation & Architecture	C	3	SC1005 (co-requisite)
SC1007	Data Structures and Algorithms	C	3	SC1003
CC0002	Navigating the Digital World	CC	2	
CY1307	Quantum	BDE	3	Students can choose to opt out and replace with any other BDE course (3 AU)
			21	

YEAR 1 SPECIAL SEMESTER				
Course Code	Course Title	Type	AU	Pre-Requisite
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
CY0001	Writing Across the Disciplines	CNY-Core	3	CNYS Course
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	
			18	

New course

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
CY0002	Ethics	CNY-Core	3	CNYS Course
CY2001	Research Attachment 1	CNY-Core	4	CNYS Course 2-semester long, course registered only in Sem 2 (similar to URECA)
SC2001	Algorithm Design and Analysis	C	3	SC1007 & MH1812
SC2103	Digital System Design	C	3	SC1005
CC0006	Sustainability: Society, Economy & Environment	CC	3	
ML0004	Career and Entrepreneurial Development for the Future World	CC	2	
			18	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite
SC2104	Sensors, Interfacing & Digital Control	C	3	SC1006
SC2107	Microprocessor System Design and Development	C	3	SC1006
SC2005	Operating Systems	C	3	SC1006 & SC1007
SC2079	Multidisciplinary Design Project	C	4	Year 3 Standing
EG1001	Engineers in Society	C	2	
			15	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite
SC2006	Software Engineering	C	3	SC2002 (co-requisite)
SC2008	Computer Networks	C	3	SC2000 & SC1004
SC3102	Signal, Systems and Transform	C	3	SC1004
SC3103	Embedded Programming	C	3	SC2107

			12	
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YEAR 3 SPECIAL SEMESTER				
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Course Code	Course Title	Type	AU	Pre-Requisite
SC3910	Professional Attachment	FC	5	
			5	

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

YEAR 4 SEMESTER 2				
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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**