

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

Last Updated : 18-Oct-21

SUMMARY OF ACADEMIC UNIT REQUIREMENT							
Year of Study	School Core	CNYS-P-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
<b>Total</b>	<b>62</b>	<b>37</b>	<b>12</b>	<b>13</b>	<b>8</b>	<b>6</b>	<b>138</b>

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	C	3		
CC0005	Healthy Living & Mental Wellbeing in an Aging Society	CC	3		
			<b>22</b>		

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		
SC1015	Introduction to Data Science and Artificial Intelligence	FC	3		
DL0001	Navigating the Digital World	CC	2		
			<b>15</b>		

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

YEAR 2 SEMESTER 1					
Course Code	Course Title	Type	AU	Pre-Requisite	
CY2001	Research Attachment 1	CNY-Core	2	CNYS 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		
			<b>20</b>		

YEAR 2 SEMESTER 2					
Course Code	Course Title	Type	AU	Pre-Requisite	
CY0001	Writing Across the Disciplines	CNY-Core	3	CNYS 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		
SC2103	Digital System Design	C	3		
CC0006	Sustainability: Society, Economy & Environment	CC	3		
ML0004	Career and Entrepreneurial Development for the Future World	CC	2		
			<b>22</b>		

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		
			<b>15</b>		

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		
			<b>12</b>		

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

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

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		
			<b>15</b>		

Total AU for Graduation: **138**