

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

Last Updated : 29-May-23

**SUMMARY OF ACADEMIC UNIT REQUIREMENT**

Year of Study	School Core	CNYS Core	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
<b>Total</b>	<b>50</b>	<b>37</b>	<b>24</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/Remarks
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/Remarks
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	
CC0002	Navigating the Digital World	CC	2	
			<b>15</b>	

**YEAR 1 SPECIAL SEMESTER**

Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
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/Remarks
CY0001	Writing Across the Disciplines	CNY-Core	3	CNYS 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	
SPO061	Science & Technology for Humanity	CC	3	
			<b>18</b>	

**YEAR 2 SEMESTER 2**

Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
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)
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	
			<b>24</b>	

**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	
			<b>15</b>	

**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	
			<b>12</b>	

**YEAR 3 SPECIAL SEMESTER**

Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
SC3080	Professional Attachment	FC	5	
			<b>5</b>	

**YEAR 4 SEMESTER 1**

Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
SC4211	CNYSF Overseas Final Year Project	C	8	CNYSF Course
			<b>8</b>	

**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	
			<b>15</b>	

Total AU for Graduation: **138**