

CURRICULUM FOR BACHELOR OF SCIENCE (MATHEMATICAL AND COMPUTER SCIENCES)
CN YANG SCHOLARS PROGRAMME
(FIRST YEAR ADMISSION)
AY2026 Intake Onwards

SUMMARY OF ACADEMIC UNIT REQUIREMENT								
Year of Study	Core	CNYS- Core	MPE	CC	Professional Series	Care, Serve & Learn	BDE	Total AU
1	24	27	0	3	0	0	0	54
2	21	6	0	7	3	3	4	44
3	0	0	16	0	11	0	0	27
4	12	0	14	0	0	0	0	26
Total	57	33	30	10	14	3	4	151

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
CY1001	The Systems Architecture of Life	CNYS- Core	3	
CY1101	Molecule	CNYS- Core	4	
CY1308	Physics	CNYS- Core	3	
CY1601	Mathematics I	CNYS- Core	4	
MH1300	Foundations of Mathematics	C	4	
SC1001	Introduction to Computational Thinking & Programming	C	2	
SC1005	Digital Logic	C	3	
			23	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
CY1007	Climate Change	CNYS- Core	3	
CY1500	Introduction to Research	CNYS- Core	2	
CY1602	Mathematics II	CNYS- Core	4	
MH1201	Linear Algebra II	C	4	
MH1301	Discrete Mathematics	C	3	
SC1002	AI Foundations	C	2	
SC1006	Computer Organisation and Architecture	C	3	
SC1007	Data Structures & Algorithms	C	3	
NH0007	Critical Perspectives on Technology and Society	CC	3	
			27	

YEAR 1 SPECIAL TERM				
Course Code	Course Title	Type	AU	Remarks
CY2003	Research Attachment 3 (Making and Tinkering)	CNYS- Core	4	
	Overseas Learning Trip			
			4	

YEAR 2 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
CY0001	Language & Logic	CNYS- Core	3	
MH2500	Probability and Introduction to Statistics	C	4	
PS5915	Undergraduate Research	BDE	IP	Course will be registered in Semester 2. Grades will be recorded at the end of Semester 2
SC2001	Algorithms Design and Analysis	C	3	
SC2003	Object Oriented Design & Programming	C	2	
SC2005	Operating Systems	C	3	
NH0001	Tech-For-Good Service Learning	CSL	3	
CC0006	Sustainability: Society, Economy & Environment	CC	3	
ML0004	Career Design & Workplace Readiness in the V.U.C.A World	CC	2	
			23	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
CY0002	Ethics	CNYS- Core	3	
SC2006	Software Engineering	C	3	

SC2207	Introduction to Databases	C	3	
SC2008	Computer Networks	C	3	
PS5915	Undergraduate Research	BDE	4	2-semester long, course registered only in Sem 2
PS0002	Introduction to Data Science and Artificial Intelligence	PS	3	
CC0015	Health & Wellbeing	CC	2	
			21	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
MHXXXX	MATH Prescribed Elective 1	MPE	4	
MHXXXX	MATH Prescribed Elective 2	MPE	3	
SCXXXX	CS Prescribed Elective 1	MPE	3	
SCXXXX	CS Prescribed Elective 2	MPE	3	
SCXXXX	CS Prescribed Elective 3	MPE	3	
MLXXXX	Profession Preparation	PS	1	
			17	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
SC3079	Professional Internship	PS	10	
			10	

YEAR 3 SPECIAL SEMESTER & YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
MH4111	Overseas Final Year Project	C	12	
			12	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
MH4XXX	MATH Prescribed Elective 3	MPE	4	
MH4XXX	MATH Prescribed Elective 4	MPE	4	
SCXXXX	CS Prescribed Elective 4	MPE	3	
SCXXXX	CS Prescribed Elective 5	MPE	3	
			14	
Total AUs required for Graduation:			151	