

CURRICULUM FOR BACHELOR OF SCIENCE (PHYSICS AND MATHEMATICAL 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	19	27	0	3	0	0	0	49
2	25	6	0	7	3	3	4	48
3	15	0	6	0	11	0	0	32
4	17	0	9	0	0	0	0	26
Total	76	33	15	10	14	3	4	155

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	
PH1198	Physics Laboratory Ia	C	2	
PS0001	Introduction to Computational Thinking	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	
MH1403	Algorithms and Computing	C	3	
PH1107	Relativity and Quantum Physics	C	3	
NH0007	Critical Perspectives on Technology and Society	CC	3	
			22	

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	
PS5915	Undergraduate Research	BDE	IP	Course will be registered in Semester 2. Grades will be recorded at the end of Semester 2
PH1105	Optics, Vibrations and Waves	C	3	
PH2102	Electromagnetism	C	4	
PH2103	Thermal Physics	C	4	
PH2198	Physics Lab IIa	C	2	
NH0001	Tech-For-Good Service Learning	CSL	3	
ML0004	Career Design & Workplace Readiness in the V.U.C.A World	CC	2	
			21	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
CY0002	Ethics	CNYS- Core	3	
MH2801	Complex Methods for the Sciences	C	3	
MH3110	Ordinary Differential Equations	C	4	
PH2101	Quantum Mechanics I	C	3	
PH2199	Physics Lab IIb	C	2	

PS5915	Undergraduate Research	BDE	4	2-semester long, course registered only in Sem 2
CC0006	Sustainability: Society, Economy & Environment	CC	3	
PS0002	Introduction to Data Science and Artificial Intelligence	PS	3	
CC0015	Health & Wellbeing	CC	2	
			27	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
MH2500	Probability and Introduction to Statistics	C	4	
MH3100	Real Analysis I	C	4	
PH3101	Quantum Mechanics II	C	4	
PH3103	Technological Applications of Quantum Mechanics	C	3	
PH4XXX	Physics PE	MPE	3	
MHXXXX	Mathematics PE	MPE	3	
MLXXXX	Profession Preparation	PS	1	
			22	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
PH4420	Professional Internship	PS	10	
			10	

YEAR 3 SPECIAL SEMESTER & YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Remarks
PH4111	Overseas Final Year Project	C	12	
			12	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Remarks
MH2220	Algebra I	C	3	
PH4511	Seminar in Mathematical Physics	C	2	
MHXXXX	Mathematics PE	MPE	3	
MHXXXX	Mathematics PE	MPE	3	
MH4XXX	Mathematics PE	MPE	3	
			14	
Total AUs required for Graduation:			155	