

**AY2021-22 CURRICULUM FOR PHYSICS AND APPLIED PHYSICS  
WITH CN YANG SCHOLARS PROGRAMME\_Internship  
(FIRST YEAR ADMISSION)**

Last Updated : 13-Oct-22

**SUMMARY OF ACADEMIC UNIT REQUIREMENT**

Year of Study	Core	CNYS-SP-Core	MPE	CC	FC	BDE	Total AU
1	3	27	0	5	0	0	35
2	18	13	0	8	3	0	42
3	13	0	9	0	0	13	35
4	12	0	0	0	10	0	22
<b>Total</b>	<b>46</b>	<b>40</b>	<b>9</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>134</b>

**YEAR 1 SEMESTER 1**

Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY1001	Cell	CNY-Core	3	CNYS-SP Courses
CY1101	Molecule	CNY-Core	4	
CY1308	Physics	CNY-Core	3	
CY1500	Introduction to Research	CNY-Core	2	
CY1601	Mathematics I	CNY-Core	4	
PH1105	Optics, Vibrations and Waves	C	3	
CC0002	Navigating the Digital World	CC	2	
			<b>21</b>	

**YEAR 1 SEMESTER 2**

Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY1007	Climate Change	CNY-Core	3	CNYS-SP Courses
CY1602	Mathematics II	CNY-Core	4	
CC0005	Healthy Living & Mental Wellbeing in an Aging Society	CC	3	
			<b>10</b>	

**YEAR 1 SPECIAL SEMESTER**

Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY2003	Research Attachment 3	CNY-Core	4	CNYS-SP Course
	Overseas Learning Trip			
			<b>4</b>	

**YEAR 2 SEMESTER 1**

Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY0002	Ethics	CNY-Core	3	CNYS-SP Course
CY1307	Quantum	CNY-Core	3	Core for CNYS-SP-PHY as it is a pre-requisite for PH2101 Quantum Mechanics I
PH2102	Electromagnetism	C	4	
PH2103	Thermal Physics	C	4	
PH2198	Physics Lab IIa	C	2	
PS0001	Introduction to Computational Thinking	C	3	
ML0004	Career and Entrepreneurial Development for the Future World	CC	2	
			<b>21</b>	

**YEAR 2 SEMESTER 2**

Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY0001	Writing Across the Disciplines	CNY-Core	3	CNYS-SP Course
CY2001	Research Attachment 1	CNY-Core	4	CNYS-SP Course 2-semester long, course registered only in Sem 2 (similar to URECA)
PH2101	Quantum Mechanics I	C	3	
PH2199	Physics Lab IIb	C	2	
PS0002	Introduction to Data Science and Artificial Intelligence	FC	3	
CC0006	Sustainability: Society, Economy & Environment	CC	3	
CC0007	Science & Technology for Humanity	CC	3	
			<b>21</b>	

**YEAR 3 SEMESTER 1**

Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
PH2104	Analytical Mechanics	C	4	
PH3101	Quantum Mechanics II	C	4	
PH3103	Technological Applications of Quantum Mechanics	C	3	
PH4XXX	School Major PE	MPE	3	
XXXXXX	Broadening and Deepening Electives 1	BDE	3	
			<b>17</b>	

**YEAR 3 SEMESTER 2**

Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
PH3199	Physics IIIa	C	2	
PH4XXX	School Major PE	MPE	3	
PH4XXX	School Major PE	MPE	3	
XXXXXX	Broadening and Deepening Electives 2	BDE	3	
XXXXXX	Broadening and Deepening Electives 3	BDE	3	
XXXXXX	Broadening and Deepening Electives 4	BDE	2	
XXXXXX	Broadening and Deepening Electives 5	BDE	2	
			<b>18</b>	

**YEAR 3 SPECIAL SEMESTER & YEAR 4 SEMESTER 1**

Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
PH4111	Overseas Final Year Project	C	12	CNYS-SP Course
			<b>12</b>	

**YEAR 4 SEMESTER 2**

Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
PH4420	Professional Internship	FC	10	
			<b>10</b>	

Total AU for Graduation : **134**