

**AY2024-25 CURRICULUM FOR PHYSICS (PPHY)  
WITH CN YANG SCHOLARS PROGRAMME\_Internship  
(FIRST YEAR ADMISSION)**

Last Updated : 23-May-24

SUMMARY OF ACADEMIC UNIT REQUIREMENT							
Year of Study	Core	CNYSB-Core	MPE	CC	FC	BDE	Total AU
1	7	30	0	5	0	0	42
2	18	10	0	8	3	0	39
3	13	0	9	0	0	9	31
4	12	0	0	0	10	0	22
<b>Total</b>	<b>50</b>	<b>40</b>	<b>9</b>	<b>13</b>	<b>13</b>	<b>9</b>	<b>134</b>

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY1001	Cell	CNY-Core	3	CNYSB Courses
CY1101	Molecule	CNY-Core	4	
CY1308	Physics	CNY-Core	3	
CY1500	Introduction to Research	CNY-Core	2	
CY1601	Mathematics I	CNY-Core	4	
PS0001	Introduction to Computational Thinking	C	3	
PH1198	Physics Laboratory Ia	C	2	
CC0002	Navigating the Digital World	CC	2	
			<b>23</b>	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY1007	Climate Change	CNY-Core	3	CNYSB Courses
CY1602	Mathematics II	CNY-Core	4	
CY1307	Quantum	CNY-Core	3	Core for CNYSB-PHY as it is a pre-req for advanced courses
PH1199	Physics Laboratory Ib	C	2	
CC0005	Healthy Living & Mental Wellbeing in an Aging Society	CC	3	
			<b>15</b>	

YEAR 1 SPECIAL SEMESTER				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY2003	Research Attachment 3	CNY-Core	4	CNYSB 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	CNYSB Course
PH1105	Optics, Vibrations and Waves	C	3	
PH2102	Electromagnetism	C	4	
PH2103	Thermal Physics	C	4	
PH2198	Physics Lab IIa	C	2	
ML0004	Career and Entrepreneurial Development for the Future World	CC	2	
			<b>18</b>	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY0002	Ethics	CNY-Core	3	CNYSB Course
CY2001	Research Attachment 1	CNY-Core	4	CNYSB 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	
SP0061	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 Laboratory 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	
			<b>14</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 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**

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2	21	10	0	8	3	0	42
3	9	0	9	0	0	10	28
4	12	0	0	0	10	0	22
<b>Total</b>	<b>49</b>	<b>40</b>	<b>9</b>	<b>13</b>	<b>13</b>	<b>10</b>	<b>134</b>

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY1001	Cell	CNY-Core	3	CNYS-PCourses
CY1101	Molecule	CNY-Core	4	
CY1308	Physics	CNY-Core	3	
CY1500	Introduction to Research	CNY-Core	2	
CY1601	Mathematics I	CNY-Core	4	
PS0001	Introduction to Computational Thinking	C	3	
PH1198	Physics Laboratory Ia	C	2	
CC0002	Navigating the Digital World	CC	2	
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YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY1007	Climate Change	CNY-Core	3	CNYS-PCourses
CY1602	Mathematics II	CNY-Core	4	
CY1307	Quantum	CNY-Core	3	Core for CNYS-PCPHY as it is a pre-req for advanced courses
PH1199	Physics Laboratory Ib	C	2	
CC0005	Healthy Living & Mental Wellbeing in an Aging Society	CC	3	
			<b>15</b>	

YEAR 1 SPECIAL SEMESTER				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY2003	Research Attachment 3	CNY-Core	4	CNYS-PCourse
	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-PCourse
PH1105	Optics, Vibrations and Waves	C	3	
PH2102	Electromagnetism	C	4	
PH2103	Thermal Physics	C	4	
PH2198	Physics Lab IIa	C	2	
ML0004	Career and Entrepreneurial Development for the Future World	CC	2	
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YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY0002	Ethics	CNY-Core	3	CNYS-PCourse
CY2001	Research Attachment 1	CNY-Core	4	CNYS-PCourse 2-semester long, course registered only in Sem 2 (similar to URECA)
PH2101	Quantum Mechanics I	C	3	

PH2199	Physics Lab IIb	C	2	
PH2301	Physics Optics	C	3	
PS0002	Introduction to Data Science and Artificial Intelligence	FC	3	
CC0006	Sustainability: Society, Economy & Environment	CC	3	
SP0061	Science & Technology for Humanity	CC	3	
			<b>24</b>	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
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	
XXXXXX	Broadening and Deepening Electives 2	BDE	2	
			<b>15</b>	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
PH3199	Physics Laboratory IIIa	C	2	
PH4XXX	School Major PE	MPE	3	
PH4XXX	School Major PE	MPE	3	
XXXXXX	Broadening and Deepening Electives 3	BDE	3	
XXXXXX	Broadening and Deepening Electives 4	BDE	2	
			<b>13</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 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**