

**AY2024-25 CURRICULUM FOR CHEMISTRY AND BIOLOGICAL CHEMISTRY
WITH CN YANG SCHOLARS PROGRAMME_Internship
SECOND MAJOR IN SUSTAINABILITY (CHSN)
(FIRST YEAR ADMISSION)**

Last Updated : 10-Oct-23

SUMMARY OF ACADEMIC UNIT REQUIREMENT							
Year of Study	School Core	CNYSP-Core	MPE	CC	FC	BDE	Total AU
1	6	27	0	5	0	6	44
2	15	10	0	8	3	9	45
3	18	0	12	0	0	12	42
4	12	0	0	0	10	0	22
Total	51	37	12	13	13	27	153

YEAR 1 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY1001	Cell	CNY-Core	3	CNYSP Courses
CY1101	Molecule	CNY-Core	4	
CY1308	Physics	CNY-Core	3	
CY1500	Introduction to Research	CNY-Core	2	
CY1601	Mathematics I	CNY-Core	4	
CC0005	Healthy Living & Mental Wellbeing in an Aging Society	CC	3	
CC0002	Navigating the Digital World	CC	2	
			21	

YEAR 1 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY1007^	Climate Change	CNY-Core	3	Double-counted as Planet Core
CY1602	Mathematics II	CNY-Core	4	CNYSP Course
CM2031	Organic & Bioorganic Chemistry	C	3	Pre-req (CY1101 Molecule) fulfilled at the end of Y1S1
CM2041	Physical & Biophysical Chemistry 1	C	3	CY1101
	Second Major Compulsory Course 2	BDE	3	
	SN Elective 1	BDE	3	List of electives to choose from
			19	

YEAR 1 SPECIAL SEMESTER				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY2003	Research Attachment 3	CNY-Core	4	CNYSP Course
	Overseas Learning Trip			
			4	

YEAR 2 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY0001	Writing Across the Disciplines	CNY-Core	3	CNYSP Course
CM2011	Analytical & Bioanalytical Chemistry	C	3	CY1101
CM2021	Inorganic & Bioinorganic Chemistry	C	3	CY1101
CM2061	Chemistry & Biological Chemistry Lab 1	C	3	CY1101
PS0001	Introduction to Computational Thinking	C	3	
CC0006	Sustainability: Society, Economy & Environment	CC	3	
ML0004	Career and Entrepreneurial Development for the Future World	CC	2	
	Second Major Compulsory Course 3	BDE	3	
			23	

YEAR 2 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CY2001	Research Attachment 1	CNY-Core	4	CNYSP Course 2-semester long, course registered only in Sem 2 (similar to URECA)
CY0002	Ethics	CNY-Core	3	CNYSP Course
CM2062	Chemistry & Biological Chemistry Lab 2	C	3	CY1101
PS0002	Introduction to Data Science and Artificial Intelligence	FC	3	PS0001
SP0061	Science & Technology for Humanity	CC	3	
	Second Major Compulsory Course 4	BDE	3	
	Second Major Compulsory Course 5	BDE	3	
			22	

YEAR 3 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CM3011	Chemical Spectroscopy & Applications	C	3	CM2021 & CM2031
CM3041	Physical & Biophysical Chemistry 2	C	3	CM2041
CM3062	Chemistry & Biological Chemistry Lab 4	C	3	CM2062
CM4XXX	School Major PE	MPE	3	
CM4XXX	School Major PE	MPE	3	
	SN Elective 2	BDE	3	List of electives to choose from
	SN Elective 3	BDE	3	
			21	

YEAR 3 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CM3021	Organometallic Chemistry	C	3	CM2021
CM3031	Organic Reaction Mechanism & Synthesis	C	3	CM2031
CM3061	Chemistry & Biological Chemistry Lab 3	C	3	CM2061
CM4XXX	School Major PE	MPE	3	
CM4XXX	School Major PE	MPE	3	
	SN Elective 4	BDE	3	List of electives to choose from
	Second Major Interdisciplinary Project	BDE	3	
			21	

YEAR 3 SPECIAL SEMESTER & YEAR 4 SEMESTER 1				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CM4111	Overseas Final Year Project	C	12	CNYSP Course
			12	

YEAR 4 SEMESTER 2				
Course Code	Course Title	Type	AU	Pre-Requisite/Remarks
CM4081	Professional Internship	FC	10	
			10	

Total AU for Graduation : **153**

^ These courses are double-counted towards both CHEM as well as the Second Major in Sustainability.

Compulsory Courses and Electives for Second Major in Sustainability

https://www.ntu.edu.sg/ase/admissions/undergraduate-programmes/second-major-in-sustainability#Content_C002_Col00