

**Curriculum for CN Yang Scholars Programme
Chemistry & Biological Chemistry
(For AY2020-21 intake)**

Course Type	AU
Core Courses	88
Major Prescribed Electives	18
GER-Core	21
GER-PE	0
Unrestricted Electives	14
Total	141

	Course Code	Course Title	Type	AU
Year 1 Semester 1	CY1001	Introductory Biology	Core	3
	CY1101	Principles of Modern Chemistry	Core	3
	CY1308	Physics	Core	3
	CY1500	Introductory Research Methodology	Core	3
	CY1601	Mathematics I	Core	4
	PS0001	Introduction to Computational Thinking	GER-Core	3
	Total AUs			19

	Course Code	Course Title	Type	AU
Year 1 Semester 2	CY1007	Climate Change	Core	3
	CY1307	Relativity and Quantum Physics	Core	3
	CY1400	CNYSYP Undergraduate Research Experience	Core	3
	CY1602	Mathematics II	Core	4
	CM1051	Basic Biology and Biochemistry	Core	3
	*CM2021	Inorganic & Bioinorganic Chemistry	Core	3
	CM2041	Physical & Biophysical Chemistry 1	Core	3
	GC0001	Introduction to Sustainability: Multidisciplinary Approaches and Solutions	GER-Core	1
	Total AUs			23

*offered in Sem 1 and Sem 2

	Course Code	Course Title	Type	AU
Year 1 Special Term	CY2003	Research Attachment 3 (Making & Tinkering)	Core	4
	Overseas Learning Trip			
	Total AUs			4

	Course Code	Course Title	Type	AU
Year 2 Semester 1	CY2001	Research Attachment 1	Core	4
	CY0002	Ethics	GER-Core	3
	CM2011	Analytical & Bioanalytical Chemistry	Core	3
	*CM2031	Organic & Bioorganic Chemistry	Core	3
	CM2061	Chemistry & Biological Chemistry Lab 1	Core	3
	ML0003	Kickstart your Career Success	GER-Core	1
	xxxxxx	Unrestricted Elective / Second Major	UE	2
	Total AUs			19

*offered in Sem 1 and Sem 2

	Course Code	Course Title	Type	AU
Year 2 Semester 2	CM2062	Chemistry and Biological Chemistry Laboratory 2	Core	3
	CY0001	Writing Across the Disciplines	GER-Core	3
	PS0002	Introduction to Data Science & AI	GER-Core	3
	PS0003	Plan your career Path	GER-Core	1
	xxxxxx	Unrestricted Elective / Second Major	UE	3
	xxxxxx	Unrestricted Elective / Second Major	UE	3
				Total AUs

	Course Code	Course Title	Type	AU
Year 3 Semester 1	CM3011	Chemical Spectroscopy & Applications	Core	3
	CM3041	Physical & Biophysical Chemistry 2	Core	3
	CM3062	Chemistry and Biological Chemistry Laboratory 3	Core	3
	xxxxxx	School Major PE (choose from Table B)	Major PE	3
	*CY0006	Enterprise, Innovation and Leadership	GER-Core	3
	PS8001	Defence Science	GER-Core	3
				Total AUs

	Course Code	Course Title	Type	AU
Year 3 Semester 2	*CM3021	Organometallic Chemistry	Core	3
	*CM3031	Organic Reaction Mechanism & Synthesis	Core	3
	CM3061	Chemistry & Biological Chemistry Lab 3	Core	3
	xxxxxx	School Major PE (choose from Table B)	Major PE	3
	xxxxxx	Unrestricted Elective / Second Major	UE	3
	xxxxxx	Unrestricted Elective / Second Major	UE	3
				Total AUs

	Course Code	Course Title	Type	AU
Year 3 Special Term & Year 4 Semester 1	CM4111	Overseas Final Year Project	Core	12
				Total AUs

	Course Code	Course Title	Type	AU	
Year 4 Semester 2	xxxxxx	School Major PE (choose from Table B)	Major PE	3	
	xxxxxx	School Major PE (choose from Table B)	Major PE	3	
	xxxxxx	School Major PE (choose from Table B)	Major PE	3	
	xxxxxx	School Major PE (choose from Table B)	Major PE	3	
				Total AUs	12
				GRAND TOTAL	141

*offered in Sem 1 and Sem 2

Table B: School Major PE (choose courses with a total of 18 AUs)

Course title and Course code	Type	AU
CM4011 Advanced Analytical Chemistry	Major PE	3
CM4012 Structural Determination	Major PE	3
CM4013 Current Topics in Analytical Chemistry	Major PE	3
CM4017 Biomedical Imaging and Sensing	Major PE	3
CM4021 Current Topics in Inorganic Chemistry	Major PE	3
*CM4031 Asymmetric Synthesis	Major PE	3
CM4032 Current Topics in Synthetic Organic Chemistry	Major PE	3
CM4033 Metal Mediated Reactions	Major PE	3
CM4042 Chemical Kinetics & Dynamics	Major PE	3
CM4043 Molecular Modelling: Principles & Applications	Major PE	3
CM4044 Artificial Intelligence in Chemistry	Major PE	3
CM4053 Pharmaceutical Chemistry	Major PE	3
CM4061 Materials Chemistry	Major PE	3
CM4062 Polymer Chemistry	Major PE	3
CM4063 Nanoscience and Nanotechnology	Major PE	3

*On hold