

**B.Eng (Hons) in Chemical and Biomolecular Engineering CNYang Scholars Programme**

AY2025 - 2026 Intake onwards (CBE CNYSP)

Programme	Year of Study	Number of Academic Units (AU)							
		Major Requirement			Interdisciplinary Collaborative Core			Broadening and Deepening Electives (BDE)	Total
		School Core (C)	CNYang Core (C)	Major PE (MPE)	Common Core (CC)	Professional Series (PS)	Care, Serve, Learn (CSL)		
Chemical & Biomolecular Engineering (CNYang)	1	12	27		2				41
	2	26	10		8		3		47
	3	25				6			31
	4	8		6		3		2	19
	Total	71	37	6	10	9	3	2	138

Category		AU	Total AU
Interdisciplinary Collaborative Core (ICC)	<b>Common Core (CC)</b>		
	CC0006 Sustainability: Society, Economy & Environment	3	10
	CC0015 Health & Wellbeing	2	
	ML0004 Career Design & Workplace Readiness in the V.U.C.A World	2	
	SP0061 Science & Technology for Humanity	3	
	<b>Professional Series (PS)</b>		
	Introduction to Data Science and Artificial Intelligence	3	9
	CB0494 Professional Preparation	1	
	CH3910 Professional Attachment	5	
	<b>Care, Service, Learn (CSL)</b>		
	Tech-For-Good (T4G)	3	3
Major Requirement	<b>CBE Core</b>		
	EG1001 Engineers In Society	2	27
	Introduction to Chemical and Biomedical Engineering	1	
	CB1102 Organic Chemistry For Engineers	3	
	CB1131 Introduction to Biomolecular Engineering	3	
	CH1104 Materials & Energy Balance	3	
	CH2010 Engineering Statistics	3	
	CH2103 Fluid Systems	3	
	CH2107 Introduction to Computational Thinking	3	
	CH2108 Thermodynamics	3	
	CH2112 Chemical Reaction Engineering	3	

Major Requirement	Heat & Mass Transfer in Chemical and Biological Systems	3	44
	CH2114	3	
	CH2123 Chemical Thermodynamics	3	
	CH2151 Unit Operations: Fluid-Solid Separation	3	
	CH2802 Chemical & Biomolecular Engineering Laboratory	2	
	CH3104 Biochemical Engineering	3	
	CH3109 Decision Tools for Business & Engineering	3	
	CH3111 Process Control and Dynamics	3	
	CH3121 Chemical, Biological & Plant Safety	2	
	CH3140 Unit Operations: Fluid-Fluid Separation	3	
	CH3802 Chemical & Biomolecular Engineering Laboratory	3	
	CH4211 CNYSP Overseas Final Year Project	8	37
	CH4801 Final Year Design Project	8	
	<b>CNYSP Core</b>		
	CY0001 Writing Across the Disciplines	3	
	CY0002 Ethics	3	
	CY1001 Cell	3	
	CY1007 Climate Change	3	
	CY1101 Molecule	4	
	CY1308 Physics	3	
	CY1500 Introduction to Research	2	
	CY1601 Mathematics I	4	
	CY1602 Mathematics II	4	
	CY2001 Research Attachment 1	4	
	CY2003 Research Attachment 3	4	
CBE Major Prescribed Electives (MPE)			6
Broadening and Deepening Electives (BDE)			2
<b>Total</b>			<b>138</b>

**B.Eng (Hons) in Chemical and Biomolecular Engineering CNYang Scholars Programme****Suggested Study Plan for AY2025-2026 intake***with Professional Attachment (CBE CNYSP)***Year 1 Semester 1**

Course		Type	AU
CB1102	Introduction to Chemical and Biomedical Engineering	C	1
CB1131	Introduction to Biomolecular Engineering	C	3
CY1001	Cell	C	3
CY1101	Molecule	C	4
CY1308	Physics	C	3
CY1500	Introduction to Research	C	2
CY1601	Mathematics 1	C	4

**20****Year 2 Semester 1**

Course		Type	AU
CH2103	Fluid Systems	C	3
CH2107	Introduction to Computational Thinking	C	3
CH2108	Thermodynamics	C	3
CH2010	Engineering Statistics	C	3
CY0001	Writing Across The Disciplines	C	3
ML0004	Career Design & Workplace Readiness in the V.U.C.A World	CC	2
CC0006	Sustainability: Society, Economy & Environment	CC	3
	Tech-For-Good (T4G)	CSL	3

**23****Year 3 Semester 1**

Course		Type	AU
CH3104	Biochemical Engineering	C	3
CH3109	Decision Tools for Business & Engineering	C	3
CH3111	Process Control and Dynamics	C	3
CH3121	Chemical, Biological & Plant Safety	C	2
CH3140	Unit Operations: Fluid-Fluid Separation	C	3
CH3802	Chemical & Biomolecular Engineering Laboratory 5	C	3
MLXXXX	Professional Preparation	PS	1

**18****Year 4 Semester 1**

Course		Type	AU
CH4801	Final Year Design Project	C	4
	CBE PE1	MPE	3
	BDE 1	BDE	2

**9****Year 1 Semester 2**

Course		Type	AU
CB1103	Organic Chemistry For Engineers	C	3
CH1104	Materials & Energy Balance	C	3
EG1001	Engineers in Society	C	2
CY1007	Climate Change	C	3
CY1602	Mathematics II	C	4
CC0015	Health & Wellbeing	CC	2

**Year 1 Special Term**

CY2003	Research Attachment 3 (Making and Tinkering)		4
—	Overseas Learning Trip	—	—

**21****Year 2 Semester 2**

Course		Type	AU
CH2112	Chemical Reaction Engineering	C	3
CH2114	Heat & Mass Transfer in Chemical and Biological Systems	C	3
CH2123	Chemical Thermodynamics	C	3
CH2151	Unit Operations: Fluid-Solid Separation	C	3
CH2802	Chemical & Biomolecular Engineering Laboratory 2B	C	2
CY0002	Ethics	C	3
CY2001	Research Attachment 1	C	4
SP0061	Science & Technology for Humanity	CC	3

**24****Year 3 Semester 2**

Course		Type	AU
CH4211	CNYSP Overseas Final Year Project	C	8

**Year 3 Special Term**

CH3910	Professional Attachment	PS	5
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**13****Year 4 Semester 2**

Course		Type	AU
CH4801	Final Year Design Project	C	4
CB0494	Introduction to Data Science and Artificial Intelligence	PS	3
	CBE PE2	MPE	3

**10****Total (AU)****138**

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