

B.Eng (Hons) in Chemical and Biomolecular Engineering with 2nd Major in Business (Mainstream)

with Professional Internship

AY2025 - 2026 Intake onwards (CBBM)

Programme	Year of Study	Number of Academic Unit (AU)						
		Major Requirement		Interdisciplinary Collaborative Core			Broadening and Deepening Electives (BDE)	Total
		Core (C)	Major PE (MPE)	Common Core (CC)	Professional Series (PS)	Care, Serve, Learn (CSL)		
Chemical & Biomolecular Engineering with Second Major in Business	1	24		6			6	36
	2	28		8	3		6	45
	3	17			11		6	34
	4	8	6		2	3	12	31
	Total	77	6	14	16	3	30	146
78*								147*

Category			AU	Total AU
Interdisciplinary Collaborative Core (ICC)	Common Core (CC)			
	CC0001	Inquiry and Communication in the Interdisciplinary World	2	14
	CC0003	Ethics & Civics in a Multi-Cultural World	2	
	CC0006	Sustainability: Society, Economy & Environment	3	
	CC0007	Science & Technology for Humanity	3	
	CC0015	Health & Wellbeing	2	
	ML0004	Career Design & Workplace Readiness in the V.U.C.A World	2	
	Professional Series (PS)			
	CB0494	Introduction to Data Science and Artificial Intelligence	3	16
	HW0288	Engineering Communication	2	
	MLXXXX	Professional Preparation	1	
	CH3920	Professional Internship	10	
	Care, Service, Learn (CSL)			
		Service Learning	3	3
Major Requirement	CBE Core			
	EG1001	Engineers In Society	2	22
	MH1810	Math 1	3	
	PH1011*	Physics	3	
	CB1102	Introduction to Chemical and Biomedical Engineering	1	
	CB1103	Organic Chemistry For Engineers	3	
	CB1117	Engineering Mathematics	4	
	CB1131	Introduction to Biomolecular Engineering	3	
	CH1104	Materials & Energy Balance	3	

Major Requirement	CH1801	Chemical & Biomolecular Engineering Laboratory 1A	1	55
	CH1802	Chemical & Biomolecular Engineering Laboratory 2	1	
	CH2010	Engineering Statistics	3	
	CH2103	Fluid Systems	3	
	CH2107	Introduction to Computational Thinking	3	
	CH2108	Thermodynamics	3	
	CH2112	Chemical Reaction Engineering	3	
	CH2114	Heat & Mass Transfer in Chemical and Biological Systems	3	
	CH2123	Chemical Thermodynamics	3	
	CH2151	Unit Operations: Fluid-Solid Separation	3	
	CH2801	Chemical & Biomolecular Engineering Laboratory 2A	2	
	CH2802	Chemical & Biomolecular Engineering Laboratory 2B	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 5	3	
	CH4801	Final Year Design Project	8	
	CBE Major Prescribed Electives (MPE)			6
2nd Major in Business (BDEs)	Foundation Business Courses			30
	AB1201	Financial Management	3	
	AB1301	Business Law	3	
	AB1501	Marketing	3	
	AB1601	Organisational Behaviour & Design	3	
	AD1102	Financial Accounting	3	
	BE1402	Business Operations & Process	3	
	Advanced Business Courses			
	AD2102	Management Accounting	3	
	BE2602	Management in Principles, Skills &	3	
	BF2219	Investments	3	
	BM2509	Consumer Insights	3	
Total				146

147*

**Students without 'A' Level Physics will take 'PH1012 Physics A' (4AU).*

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Suggested Study Plan for AY2025-2026 intake (CBBM) with Professional Internship					
Year 1 Semester 1			Year 1 Semester 2		
Course	Type	AU	Course	Type	AU
CB1102 Introduction to Chemical and Biomedical Engineering	C	1	CB1103 Organic Chemistry For Engineers	C	3
CB1131 Introduction to Biomolecular Engineering	C	3	CB1117 Engineering Mathematics	C	4
CH1801 Chemical & Biomolecular Engineering Laboratory 1A	C	1	CH1104 Materials & Energy Balance	C	3
MH1810 Math 1	C	3	CH1802 Chemical & Biomolecular Engineering Laboratory 2	C	1
PH1011 Physics	C	3	EG1001 Engineers in Society	C	2
PH1012 Physics A (* For students without 'A' Level Physics)	C	4	CC0003 Ethics & Civics in a Multi-Cultural World	CC	2
CC0001 Inquiry and Communication in the Interdisciplinary World	CC	2	CC0015 Health & Wellbeing	CC	2
AB1201 Financial Management	BDE	3	AB1501 Marketing	BDE	3
		*			
	16	17			20
Year 2 Semester 1			Year 2 Semester 2		
Course	Type	AU	Course	Type	AU
CH2103 Fluid Systems	C	3	CH2112 Chemical Reaction Engineering	C	3
CH2107 Introduction to Computational Thinking	C	3	CH2114 Heat & Mass Transfer in Chemical and Biological Systems	C	3
CH2108 Thermodynamics	C	3	CH2123 Chemical Thermodynamics	C	3
CH2010 Engineering Statistics	C	3	CH2151 Unit Operations: Fluid-Solid Separation	C	3
CH2801 Chemical & Biomolecular Engineering Laboratory 2A	C	2	CH2802 Chemical & Biomolecular Engineering Laboratory 2B	C	2
ML0004 Career Design & Workplace Readiness in the V.U.C.A World	CC	2	CC0007 Science & Technology for Humanity	CC	3
CC0006 Sustainability: Society, Economy & Environment	CC	3	CB0494 Introduction to Data Science and Artificial Intelligence	PS	3
AD1102 Financial Accounting	BDE	3	AB1601 Organisational Behaviour & Design	BDE	3
	22				23
Year 3 Semester 1			Year 3 Semester 2		
Course	Type	AU	Course	Type	AU
CH3104 Biochemical Engineering	C	3	CH3920 Professional Internship	PS	10
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			
AB1301 Business Law	BDE	3			
AD2102 Management Accounting	BDE	3			
	24				10
Year 4 Semester 1			Year 4 Semester 2		
Course	Type	AU	Course	Type	AU
CH4801 Final Year Design Project	C	4	CH4801 Final Year Design Project	C	4
CBE PE 1	MPE	3	CBE PE 2	MPE	3
HW0288 Engineering Communication	PS	2	BE1402 Business Operations and Processes	BDE	3
Service Learning	CSL	3	BM2509 Consumer Insights	BDE	3
BE2602 Management in Principles, Skills & Competencies	BDE	3			
BF2219 Investments	BDE	3			
	18				13
			Total (AU)		146
					147*

*Students without 'A' Level Physics will take 'PH1012 Physics A' (4AU).