

## B.Eng (Hons) in Chemical and Biomolecular Engineering (CBE) - ABP

AY2022 - 2023 Intake onwards

with Professional Attachment

Programme	Year of Study	Number of Academic Units (AUs)					
		Major Requirement		Interdisciplinary Collaborative Core		Broadening and Deepening Electives (BDE)	Total
		Core (C)	Major PE (MPE)	Common Core (CC)	Foundational Core (FC)		
Chemical & Biomolecular Engineering	1	24/25*		9		6	39/40*
	2	28		8	3		39
	3	25	3		7	9	44
	4		3			11	14
	Total	77/78*	6	17	10	26	136/137*

## Accelerated Bachelor Programme (ABP)

Category		AU	Total AU
Interdisciplinary Collaborative Core (ICC)	<b>Common Core (University-level)</b>		
	CC0001 Inquiry and Communication in the Interdisciplinary World	2	17
	CC0002 Navigating the Digital World	2	
	CC0003 Ethics & Civics in a Multi-Cultural World	2	
	CC0005 Healthy Living & Wellbeing	3	
	CC0006 Sustainability: Society, Economy & Environment	3	
	CC0007 Science & Technology for Humanity	3	
	ML0004 Career and Entrepreneurial Development for the Future World	2	
	<b>Foundational Core (College-level)</b>		
Major Requirement	HW0288 Engineering Communication	2	10
	CB0494 Introduction to Data Science and Artificial Intelligence	3	
	CH3885 Professional Attachment	5	

Major Requirement	CB1117	Engineering Mathematics	4	65
	CB1131	Introduction to Biomolecular Engineering	3	
	CH1104	Materials & Energy Balance	3	
	CH1801	Chemical & Biomolecular Engineering Laboratory 1A	1	
	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)			
Broadening and Deepening Electives (BDE)				26
Total				136/137*

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

**B.Eng. (Chemical & Biomolecular Engineering)**  
**Suggested Study Plan for AY2022-2023 intake (ABP)**  
with Professional Attachment

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	or Physics A (*For students without 'A' Level Physics)		4	CC0003	Ethics & Civics in a Multi-Cultural World	CC	2
				CC0005	Healthy Living & Wellbeing	CC	3
CC0001	Inquiry and Communication in the Interdisciplinary World	CC	2	BDE 2		BDE	3
CC0002	Navigating the Digital World	CC	2				
	BDE 1	BDE	3				
			18				21
			19				
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
CC0006	Sustainability: Society, Economy & Environment	CC	3	CC0007	Science & Technology for Humanity	CC	3
ML0004	Career and Entrepreneurial Development for the Future World	CC	2	CB0494	Introduction to Data Science and Artificial Intelligence	FC	3
			19				20
Year 3 Semester 1				Year 3 Semester 2			
Course		Type	AU	Course		Type	AU
CH3104	Biochemical Engineering	C	3	CH4801	Final Year Design Project	C	4
CH3109	Decision Tools for Business & Engineering	C	3	CBE PE 1		MPE	3
CH3111	Process Control and Dynamics	C	3	BDE 3		BDE	3
CH3121	Chemical, Biological & Plant Safety	C	2	BDE 4		BDE	3
CH3140	Unit Operations: Fluid-Fluid Separation	C	3	BDE 5		BDE	3
CH3802	Chemical & Biomolecular Engineering Laboratory 5	C	3	<b>Year 3 Special Term</b>			
CH4801	Final Year Design Project	C	4	CH3885	Professional Attachment	FC	5
HW0288	Engineering Communication	FC	2				
			23				21
Year 4 Semester 1				Year 4 Semester 2			
Course		Type	AU	Course		Type	AU
	CBE PE 2	MPE	3				
	BDE 6	BDE	3				
	BDE 7	BDE	3				
	BDE 8	BDE	3				
	BDE 9	BDE	2				
			14				0
				<b>Total (AU)</b>			<b>136</b>
							<b>137*</b>

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