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

with Professional Internship

AY2025 - 2026 Intake onwards CBBM(ITG)

Programme		Number of Academic Units (AU)							
	Year of Study	Major Requirement		Interdisciplinary Collaborative Core			Broadening and	Total	
		Core (C)	Major PE (MPE)	Common Core (CC)	Professional Series (PS)	Care, Serve, Learn (CSL)	Deepening Electives (BDE)	iotai	
Chemical &	1	24		6			6	36	
Biomolecular	2	28		8	3		11	50	
Engineering with	3	17			11		6	34	
Second Major in	4	8	6		2	3	8	27	
Business - ITP	Total	77	6	14	16	3	31	147	

78\* 148\*

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

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	BF3226	Strategic Management in Commodity Market	2	I
	BF3214	Commodities Trading	2	
	BF3213	Enterprise Risk Management in Commodity	2	
	BF3212	Trade, Structured & Supply Chain Finance	2	
Trading (BDEs)	BF2302	International Tax & Trading Law	2	
International	BF2227	Commodity Markets	3	
Business -	BF2226	Trade Incoterms & Ship Chartering	3	31
2nd Major in	BE1402	Business Operations & Process	3	
	AD2102	Management Accounting	3	
	AD1102	Financial Accounting	3	
	AB1501	Marketing	3	
	AB1201	Financial Management	3	
	Business	(ITP) Courses		
	CRF Majo	or Prescribed Electives (MPE)		6
	CDE MA-:	ur Dungarilla di Floatiuse (NADE)		
	CH4801	Final Year Design Project	8	
	CH3802	Laboratory 5	3	
	C113140	Chemical & Biomolecular Engineering		
	CH3140	Unit Operations: Fluid-Fluid Separation	3	
	CH3121	Chemical, Biological & Plant Safety	2	
	CH3111	Process Control and Dynamics	3	
	CH3104	Decision Tools for Business & Engineering	3	
	CH3104	Laboratory 2B Biochemical Engineering	3	
Major Requirement	CH2802	Chemical & Biomolecular Engineering	2	
	CH2801	Chemical & Biomolecular Engineering Laboratory 2A	2	55
	CH2151	Unit Operations: Fluid-Solid Separation	3	
	CH2123	Chemical Thermodynamics	3	
	CH2114	Heat & Mass Transfer in Chemical and Biological Systems	3	
	CH2112	Chemical Reaction Engineering	3	
	CH2108	Thermodynamics	3	
	CH2107	Introduction to Computational Thinking	3	
	CH2103	Fluid Systems	3	
	CH2010	Engineering Statistics	3	
	CH1802	Laboratory 2	1	
		Chemical & Biomolecular Engineering		
	CH1801	Laboratory 1A	1	
	CU1001	Chemical & Biomolecular Engineering	4	

<sup>148\*</sup> 

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

	Chemical & Biomolecular Engineering) with 2nd N ad Study Plan for AY2025-2026 intake CBBM(ITG) essional Internship	najor iii b			-		
Year 1 Semester 1 Course		Type	AU	Year 1 Se Course	emester 2	Type	AL
B1102	Introduction to Chemical and Biomedical Engineering	С	1	CB1103	Organic Chemistry For Engineers	С	3
B1131	Introduction to Biomolecular Engineering	С	3	CB1117	Engineering Mathematics	С	4
CH1801	Chemical & Biomolecular Engineering Laboratory 1A	С	1	CH1104	Materials & Energy Balance	С	3
ИН1810	Math 1	С	3	CH1802	Chemical & Biomolecular Engineering Laboratory 2	С	1
PH1011	Physics	С	3	EG1001	Engineers in Society	С	2
	<u>or</u>			CC0003	Ethics & Civics in a Multi-Cultural World	CC	2
PH1012	Physics A (* For students without 'A' Level Physics)	С	4	CC0015	Health & Wellbeing	СС	2
CC0001	Inquiry and Communication in the Interdisciplinary World	CC	2	AB1501	Marketing	BDE	3
AB1201	Financial Management	BDE	3				
			* * 16				20
	emester 1			Year 2 Se	emester 2		
Course	Fluid Customes	<b>Type</b> C	<u>AU</u> 3	Course CH2112	Chamical Departure Engine suite a	Type C	Al
	Fluid Systems				Chemical Reaction Engineering Heat & Mass Transfer in Chemical and	С	
CH2107	Introduction to Computational Thinking	С	3	CH2114	Biological Systems		3
CH2108 CH2010	,	C C	3 3	CH2123 CH2151	Chemical Thermodynamics	C C	3
	Engineering Statistics Chemical & Biomolecular Engineering Laboratory				Unit Operations: Fluid-Solid Separation Chemical & Biomolecular Engineering		
CH2801	2A Career Design & Workplace Readiness in the	С	2	CH2802	Laboratory 2B	С	2
/L0004	V.U.C.A World	CC	2	CC0007	Science & Technology for Humanity	CC	3
C0006	Sustainability: Society, Economy & Environment	CC	3	CB0494	Introduction to Data Science and Artificial Intelligence	PS	3
AD1102 3F2227	Financial Accounting Commodity Markets	BDE BDE	3	BE1402 BF3214	Business Operations and Processes Commodities Trading	BDE BDE	2
			25				2
Year 3 So Course	emester 1	Туре	AU	Year 3 Se Course	emester 2	Туре	Α
	Biochemical Engineering	С	3	CH3920	Professional Internship	PS	1
	Decision Tools for Business & Engineering	С	3				
CH3109 CH3111	Process Control and Dynamics	С	3				
CH3111 CH3121	Process Control and Dynamics Chemical, Biological & Plant Safety	С	2				
CH3111 CH3121 CH3140	Process Control and Dynamics	C C	2 3				
CH3111 CH3121 CH3140 CH3802	Process Control and Dynamics Chemical, Biological & Plant Safety Unit Operations: Fluid-Fluid Separation Chemical & Biomolecular Engineering Laboratory 5	C C	2 3 3				
CH3111 CH3121 CH3140 CH3802 MLXXXX	Process Control and Dynamics Chemical, Biological & Plant Safety Unit Operations: Fluid-Fluid Separation Chemical & Biomolecular Engineering Laboratory 5 Professional Preparation	C C C PS	2 3 3				
CH3111 CH3121 CH3140 CH3802 MLXXXX AD2102	Process Control and Dynamics Chemical, Biological & Plant Safety Unit Operations: Fluid-Fluid Separation Chemical & Biomolecular Engineering Laboratory 5	C C	2 3 3				
CH3111 CH3121 CH3140 CH3802 MLXXXX AD2102	Process Control and Dynamics Chemical, Biological & Plant Safety Unit Operations: Fluid-Fluid Separation Chemical & Biomolecular Engineering Laboratory 5 Professional Preparation Management Accounting	C C C PS BDE	2 3 3 1 3				1
CH3111 CH3121 CH3140 CH3802 MLXXXX AD2102	Process Control and Dynamics Chemical, Biological & Plant Safety Unit Operations: Fluid-Fluid Separation Chemical & Biomolecular Engineering Laboratory 5 Professional Preparation Management Accounting	C C C PS BDE	2 3 3 1 3 3				1
CH3111 CH3121 CH3140 CH3802 MLXXXX AD2102 BF2226	Process Control and Dynamics Chemical, Biological & Plant Safety Unit Operations: Fluid-Fluid Separation Chemical & Biomolecular Engineering Laboratory 5 Professional Preparation Management Accounting	C C C PS BDE BDE	2 3 3 1 3 3 3	Year 4 Se Course	emester 2	Type	
CH3111 CH3121 CH3140 CH3802 MLXXXX AD2102 BF2226 (ear 4 Siccourse	Process Control and Dynamics Chemical, Biological & Plant Safety Unit Operations: Fluid-Fluid Separation Chemical & Biomolecular Engineering Laboratory 5 Professional Preparation Management Accounting Trade Incoterms and Ship Chartering	C C C PS BDE	2 3 3 1 3 3	Year 4 Se Course CH4801	e <b>mester 2</b> Final Year Design Project	Type C	Α
CH3111 CH3121 CH3140 CH3802 MLXXXX ND2102 BF2226	Process Control and Dynamics Chemical, Biological & Plant Safety Unit Operations: Fluid-Fluid Separation Chemical & Biomolecular Engineering Laboratory 5 Professional Preparation Management Accounting Trade Incoterms and Ship Chartering	C C C PS BDE BDE Type	2 3 3 1 3 3 24	Course			A
CH3111 CH3121 CH3140 CH3802 MLXXXX D2102 SF2226 Cear 4 SC Course CH4801	Process Control and Dynamics Chemical, Biological & Plant Safety Unit Operations: Fluid-Fluid Separation Chemical & Biomolecular Engineering Laboratory 5 Professional Preparation Management Accounting Trade Incoterms and Ship Chartering  emester 1  Final Year Design Project	C C C PS BDE BDE	2 3 3 1 3 3 24	Course	Final Year Design Project	С	<b>A</b>
CH3111 CH3121 CH3140 CH3802 MLXXXX D2102 F2226 Cear 4 S Course CH4801	Process Control and Dynamics Chemical, Biological & Plant Safety Unit Operations: Fluid-Fluid Separation Chemical & Biomolecular Engineering Laboratory 5 Professional Preparation Management Accounting Trade Incoterms and Ship Chartering  emester 1  Final Year Design Project CBE PE 1	C C C PS BDE BDE C C MPE	2 3 3 1 3 3 24 AU 4 3	Course CH4801	Final Year Design Project CBE PE 2 Trade, Structured and Supply Chain	C MPE	A 3
CH3111 CH3121 CH3140 CH3802 MLXXXX MD2102 BF2226 Cear 4 Scourse CH4801 HW0288	Process Control and Dynamics Chemical, Biological & Plant Safety Unit Operations: Fluid-Fluid Separation Chemical & Biomolecular Engineering Laboratory 5 Professional Preparation Management Accounting Trade Incoterms and Ship Chartering  emester 1  Final Year Design Project CBE PE 1 Engineering Communication	C C C PS BDE BDE C C MPE PS	2 3 3 1 3 3 24	Course CH4801 BF3212	Final Year Design Project CBE PE 2 Trade, Structured and Supply Chain Finance	C MPE BDE	A 3
EH3111 CH3121 CH3140 CH3802 MLXXXX D2102 FF2226 CH4801 HW0288	Process Control and Dynamics Chemical, Biological & Plant Safety Unit Operations: Fluid-Fluid Separation Chemical & Biomolecular Engineering Laboratory 5 Professional Preparation Management Accounting Trade Incoterms and Ship Chartering  emester 1  Final Year Design Project CBE PE 1 Engineering Communication Service Learning  International Tax and Trading Law	C C C PS BDE BDE C C MPE PS CSL	2 3 3 1 3 3 24 AU 4 3 2 3	Course CH4801 BF3212	Final Year Design Project CBE PE 2 Trade, Structured and Supply Chain Finance	C MPE BDE	A 3
EH3111 CH3121 CH3140 CH3802 MLXXXX D2102 FF2226 CH4801 HW0288	Process Control and Dynamics Chemical, Biological & Plant Safety Unit Operations: Fluid-Fluid Separation Chemical & Biomolecular Engineering Laboratory 5 Professional Preparation Management Accounting Trade Incoterms and Ship Chartering  emester 1  Final Year Design Project CBE PE 1 Engineering Communication Service Learning  International Tax and Trading Law	C C C PS BDE BDE C C MPE PS CSL BDE	2 3 3 1 3 3 24 AU 4 3 2 3	Course CH4801 BF3212	Final Year Design Project CBE PE 2 Trade, Structured and Supply Chain Finance	C MPE BDE	A 3
CH3111 CH3121 CH3140 CH3802 MLXXXX AD2102 BF2226  (ear 4 Scourse CH4801	Process Control and Dynamics Chemical, Biological & Plant Safety Unit Operations: Fluid-Fluid Separation Chemical & Biomolecular Engineering Laboratory 5 Professional Preparation Management Accounting Trade Incoterms and Ship Chartering  emester 1  Final Year Design Project CBE PE 1 Engineering Communication Service Learning  International Tax and Trading Law	C C C PS BDE BDE C C MPE PS CSL BDE	2 3 3 1 3 3 24 AU 4 3 2 3	Course CH4801 BF3212	Final Year Design Project CBE PE 2 Trade, Structured and Supply Chain Finance	C MPE BDE	10 AA 4 3 2 2 2

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