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

with Professional Internship
AY2023 - 2024 Intake onwards CBBM(ITG)

Programme	Year of Study	Number of Academic Units (AU)					Total
		Major Requirement		Interdisciplinary Collaborative Core		Broadening and Deepening Electives (BDE)	
		Core (C)	Major PE (MPE)	Common Core (CC)	Foundational Core (FC)		
Chemical & Biomolecular Engineering with Second Major in Business - ITP	1	24/25*		9		6	39/40*
	2	28		8	3	11	50
	3	17			12	6	35
	4	8	6			8	22
	Total	77/78*	6	17	15	31	146/147*

Category			AU	Total AU
Interdisciplinary Collaborative Core (ICC)	**Common Core (University-level)**			
	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	
	Foundational Core (College-level)			
	HW0288 Engineering Communication		2	15
	CB0494 Introduction to Data Science and Artificial Intelligence		3	
	CH3920 Professional Internship		10	
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	
	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 Seperation	3	55
	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 - International Trading (BDEs)	**Business (ITP) Courses**			
	AB1201	Financial Management	3	
	AB1501	Marketing	3	
	AD1102	Financial Accounting	3	
	AD2102	Management Accounting	3	
	BE1402	Business Operations & Process	3	
	BF2226	Trade Incoterms & Ship Chartering	3	
	BF2227	Commodity Markets	3	31
	BF2302	International Tax & Trading Law	2	
	BF3212	Trade, Structured & Supply Chain Finance	2	
	BF3213	Enterprise Risk Management in Commodity Markets	2	
	BF3214	Commodities Trading	2	
	BF3226	Strategic Management in Commodity Market	2	
Total				**146/147***

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

B.Eng. (Chemical & Biomolecular Engineering) with 2nd Major in Business (International Trading)
Suggested Study Plan for AY2023-2024 intake CBBM(ITG)
with Professional Internship

Year 1 Semester 1

Course		Type	AU
CB1102	Introduction to Chemical and Biomedical Engineering	C	1
CB1131	Introduction to Biomolecular Engineering	C	3
CH1801	Chemical & Biomolecular Engineering Laboratory 1A	C	1
MH1810	Math 1	C	3
PH1011	Physics	C	3
	or		
PH1012	Physics A (* For students without 'A' Level Physics)	C	4
CC0001	Inquiry and Communication in the Interdisciplinary World	CC	2
CC0002	Navigating the Digital World	CC	2
AB1201	Financial Management	BDE	3
		18	**19** *

Year 1 Semester 2

Course		Type	AU
CB1103	Organic Chemistry For Engineers	C	3
CB1117	Engineering Mathematics	C	4
CH1104	Materials & Energy Balance	C	3
CH1802	Chemical & Biomolecular Engineering Laboratory 2	C	1
EG1001	Engineers in Society	C	2
CC0003	Ethics & Civics in a Multi-Cultural World	CC	2
CC0005	Healthy Living & Wellbeing	CC	3
AB1501	Marketing	BDE	3
			21

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
CH2801	Chemical & Biomolecular Engineering Laboratory 2A	C	2
CC0006	Sustainability: Society, Economy & Environment	CC	3
ML0004	Career and Entrepreneurial Development for the Future World	CC	2
AD1102	Financial Accounting	BDE	3
BF2227	Commodity Markets	BDE	3
			25

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 Seperation	C	3
CH2802	Chemical & Biomolecular Engineering Laboratory 2B	C	2
CC0007	Science & Technology for Humanity	CC	3
CB0494	Introduction to Data Science and Artificial Intelligence	FC	3
BE1402	Business Operations and Processes	BDE	3
BF3214	Commodities Trading	BDE	2
			25

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
HW0288	Engineering Communication	FC	2
AD2102	Management Accounting	BDE	3
BF2226	Trade Incoterms and Ship Chartering	BDE	3
			25

Year 3 Semester 2

Course		Type	AU
CH3920	Professional Internship	FC	10
			10

Year 4 Semester 1

Course		Type	AU
CH4801	Final Year Design Project	C	4
	CBE PE 1	MPE	3
	CBE PE 2	MPE	3
BF2302	International Tax and Trading Law	BDE	2
BF3226	Strategic Management in Commodity Market	BDE	2
			14

Year 4 Semester 2

Course		Type	AU
CH4801	Final Year Design Project	C	4
BF3212	Trade, Structured and Supply Chain Finance	BDE	2
BF3213	Enterprise Risk Management	BDE	2
			8
	Total (AU)		**146**
			147*

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