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

with Professional Internship

AY2023 - 2024 Intake onwards CBBM(ITG)

			Nun	ber of Aca	demic Unit	s (AU)	
Programme	Year of	Major Req	uirement	Interdiso Collabora		Broadening and	Total
	Study	Core (C)	Major PE (MPE)	Common Core (CC)	Foundational Core (FC)	Deepening Electives (BDE)	Total
Chemical &	1	24/25*		9		6	39/40*
Biomolecular	2	28		8	3	11	50
Engineering with	3	17			12	6	35
Second Major in	4	8	6			8	22
Business - ITP	Total	77/78*	6	17	15	31	146/147*

Category			AU	Total AU
	Common (Core (University-level)		
	CC0001 In	quiry and Communication in the Interdisciplinary	2	
		avigating the Digital World	2	
		hics & Civics in a Multi-Cultural World	2	
	CC0005 He	ealthy Living & Wellbeing	3	17
		stainability: Society, Economy & Environment	3	
Interdisciplinary		ience & Technology for Humanity	3	
Collaborative Core (ICC)		areer and Entrepreneurial Development for the	2	
				!
	Foundatio	nal Core (College-level)		
	HW0288 E	ngineering Communication	2	
	CB0494 In	troduction to Data Science and Artificial	2	15
	Intelligenc	e	3	
	CH3920 Pr	ofessional Internship	10	
	CBE Core			
	EG1001	Engineers In Society	2	
	MH1810	Math 1	3	
	PH1011*	Physics	3	
Major	CB1102	Introduction to Chemical and Biomedical Engineering	1	22
Requirement	CB1103	Organic Chemistry For Engineers	3	
	CB1117	Engineering Mathematics	4	
	CB1131	Introduction to Biomolecular Engineering	3	
	CH1104	Materials & Energy Balance	3	

Total			<u> </u>	146/147*
	BF3214 BF3226	Strategic Management in Commodity Market	2	
	BF3213 BF3214	Markets Commodities Trading	2	
		Enterprise Risk Management in Commodity		
(DDL3)	BF3212	Trade, Structured & Supply Chain Finance	2	
(BDEs)	BF2302	International Tax & Trading Law	2	
Business - International Trading	_	Trade Incoterms & Ship Chartering Commodity Markets	3	31
2nd Major in	BE1402 BF2226	Business Operations & Process Trade Incotorms & Ship Chartering	3	
2.104	AD2102	Management Accounting	3	
	AD1102	Financial Accounting	3	
	AB1501	Marketing	3	
	AB1201	Financial Management	3	
		(ITP) Courses	_	
	CBL Wajo	Trescribed Liectives (Wir L)		
	CRF Maio	r Prescribed Electives (MPE)		6
	CH4801	Final Year Design Project	8	
	CH3802	Chemical & Biomolecular Engineering Laboratory 5	3	
	CH3140	Unit Operations: Fluid-Fluid Separation	3	
	CH3121	Chemical, Biological & Plant Safety	2	
	CH3111	Process Control and Dynamics	3	
	CH3109	Decision Tools for Business & Engineering	3	
	CH3104	Biochemical Engineering	3	
	CH2802	Chemical & Biomolecular Engineering Laboratory 2B	2	
Major Requirement	CH2801	Chemical & Biomolecular Engineering Laboratory 2A	2	33
	CH2151	Unit Operations: Fluid-Solid Seperation	3	55
	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	Laboratory 2 Engineering Statistics	3	
	CH1802	Chemical & Biomolecular Engineering	1	
	CH1801	Chemical & Biomolecular Engineering Laboratory 1A	1	

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

Year Semester Course			g)	ding	Internatio	usiness	/lajor in Bi	themical & Biomolecular Engineering) with 2nd I d Study Plan for AY2023-2024 intake CBBM(ITG) ssional Internship
Engineering	AU	Type	mester 2			AU	Туре	emester 1
CH1901 Infractuction to Biomolecular Engineering C 3 CB1117 Engineering Mathematics C Ch1901 Chamical & Biomolecular Engineering Laboratory C 1 CH1901 Main 1 C 3 CH1902 Chamical & Biomolecular Engineering C CH1901 CH1902 Ch1901 C	3	С	Organic Chemistry For Engineers	03	-	1	С	
An 14	4	С	Engineering Mathematics	17		3	С	Introduction to Biomolecular Engineering
Mid-10 Math 1	3	С	Materials & Energy Balance	04		1	С	
CC0002 Assignation CC Physics A (*For students without A*Level CC Physics A (*For students without A*Level CC CC0001 Physics A (*For students without A*Level CC CC0002 Navigating the Digital World CC CC0002 Navigatin	1	С		02		3	С	
Physics A (* For students without A' Level Physics C C C C C C C C C	2	С	Engineers in Society	01		3	С	Physics
Physics Phys	2	CC	Ethics & Civics in a Multi-Cultural World	03				· _
Vocation	3	CC	Healthy Living & Wellbeing	05		4	С	
AB 19	3	BDE	Marketing	01		2	CC	
Year 2 Semester 1								
Year 2 Semester 1	21				*		DUE	rinanciai wanagement
Course	21				19	16		
CH2103 Fluid Systems		_	mester 2				_	emester 1
CH2107 Introduction to Computational Thinking C 3 CH2114 Head Mass Transfer in Chemical and Biological Systems C CH2108 Thermodynamics C 3 CH2123 Chemical Thermodynamics C CH2101 Enjineering Statistics C 3 CH2123 Chemical Thermodynamics C CH2801 Chemical & Biomolecular Engineering Laboratory C C 2 CH2802 Chemical & Biomolecular Engineering Laboratory 2B CC0006 Sustainability: Society, Economy & Environment C C 3 CC0007 Science & Technology for Humanity C C CM0006 Sustainability: Society, Economy & Environment C C 3 CC0007 Science & Technology for Humanity C C CM0004 Introduction to Data Science and Artificial Intelligence Future World Introduction to Data Science and Artificial F C Future World Introduction to Data Science and Artificial F C Intelligence Sustainability: Society Commodity Markets BDE 3 BE1402 Business Operations and Processes BDE BF3214 Commodities Trading BDE BF3214 Commodities Trading BDE BF3214 Commodities Trading BDE C 3 CH309 Decision Tools for Business & Engineering C 3 CH309 Decision Tools for Business & Engineering C 3 CH309 Decision Tools for Business & Engineering C 3 CH309 Decision Tools for Business & Engineering C 3 CH309 Decision Tools for Business & Engineering C 3 CH309 Decision Tools for Business & Engineering C 3 CH309 Decision Tools for Business & Engineering C 3 CH309 Decision Tools for Business & Engineering C 3 CH309 Decision Tools for Business & Engineering C 3 CH309 Decision Tools for Business & Engineering C 3 CH309 Decision Tools for Business & Engineering C 3 CH309 Decision Tools for Business & Engineering C 3 CH300 Decision Tools for Business & Engineering C 3 CH300 Decision Tools for Business & Engineering C 3 CH300 Decision Tools for Business & Engineering C 3 CH300 Decision Tools for Business & Engineering C 3 CH300 Decision Tools for Business & Engineering C 3 CH300 Decision Tools for Business & Engineering C 3 CH300 Decision Tools for Business & Engineering C 3 CH300 Decision Tools for Business & Engineering C 3 CH300 Decision Tools for Business & Engineering C 3	<u>AU</u> 3		Chemical Reaction Engineering		-			Fluid Systems
CH2108 Thermodynamics	3	С	Heat & Mass Transfer in Chemical and			3	С	-
CH2801 Engineering Statistics C 3 CH2151 Unit Operations: Pluid-Solid Separation C CH2801 Chemical & Biomolecular Engineering C CH2802 Chemical & Biomolecular Engineering C CH2802 Chemical & Biomolecular Engineering C CR20000 C CH2802 Chemical & Biomolecular Engineering C CR200000 C CR200000 C CR200000 CR2000000 CR200000000 CR2000000000000000000000000000000000000	3	С	• •	23		3	С	· · · · · · · · · · · · · · · · · · ·
CC0006 Sustainability: Society, Economy & Environment CC 3 CC0007 Science & Technology for Humanity CC Humanity CC Career and Entrepreneurial Development for the CC 2 CB0494 Introduction to Data Science and Artificial FC Inture World AD1102 Financial Accounting BDE 3 BEF2227 Commodity Markets BDE 3 BF2227 Commodity Markets BDE 3 BF3214 Commodities Trading BDE BF2227 Commodity Markets BDE 3 BF3214 Commodities Trading BDE BF2227 Course Type AU CH3920 Professional Internship FC CH3104 Biochemical Engineering C 3 CH3101 Process Control and Dynamics C 3 CH3111 Process Control and Dynamics C 3 CH3121 Chemical Biological & Plant Safety C 2 2 CH3920 Professional Internship FC CH3104 Unit Operations: Fluid-Fluid Separation C 3 CH3121 Chemical Biological & Plant Safety C 2 2 AD2102 Management Accounting BDE 3 BDE 3 BDE 3 BDE 3 BF2226 Trade Incoterms and Ship Chartering BDE 3 BDE	3		•					
ML0004 Career and Entrepreneurial Development for the Future World	2	С		02		2	С	
AD1102 Financial Accounting BDE 3 BF2227 Commodity Markets BDE 3 BE1402 Business Operations and Processes BDE BF3214 Commodities Trading BDE 3 BF3214 Commodities Trading BDE 3 BE402 Business Operations and Processes BDE BF3214 Commodities Trading BDE CH3920 Professional Internship FC FC CH3920 Professional Internship FC FC CH3920 Professional Internship FC CH3920 Prof	3	CC	Science & Technology for Humanity	07		3	CC	Sustainability: Society, Economy & Environment
BF2227 Commodity Markets BDE 3 SE 3 SE 3 SE 3 SE SE	3	FC		94		2	CC	
Year 3 Semester 1 Course Type AU CH3104 Biochemical Engineering C 3 CH3111 Process Control and Dynamics C 3 CH3111 Process Control and Dynamics C 3 CH3112 Chemical, Biological & Plant Safety C 2 CH3140 Unit Operations: Fluid-Fluid Separation C 3 CH3121 Chemical & Biomolecular Engineering Laboratory C 3 CH3802 Semester 2 CH3920 Professional Internship FC CH3920 Professional Inte	3 2		Business Operations and Processes					<u> </u>
Course	25				•	25		
CH3104 Biochemical Engineering C 3 CH3109 Decision Tools for Business & Engineering C 3 CH3109 Decision Tools for Business & Engineering C 3 CH3121 Chemical, Biological & Plant Safety C 2 CH3141 Unit Operations: Fluid-Fluid Separation C 3 CH3802 CH3802 S	AU	Tyne	mester 2			ΔΠ	Tyne	emester 1
CH3111 Process Control and Dynamics C 3 CH3121 Chemical, Biological & Plant Safety C 2 CH3140 Unit Operations: Fluid-Fluid Separation C 3 Chemical & Biomolecular Engineering Laboratory C 3 Chemical & Biomolecular Engineering Laboratory C 3 S HW0288 Engineering Communication FC 2 AD2102 Management Accounting BDE 3 BPE 226 Trade Incoterms and Ship Chartering BDE 3 BPE 255 Year 4 Semester 1	10		Professional Internship		•			Biochemical Engineering
CH3121 Chemical, Biological & Plant Safety C 2 CH3140 Unit Operations: Fluid-Fluid Separation C 3 CH3802 Chemical & Biomolecular Engineering Laboratory 5 HW0288 Engineering Communication FC 2 AD2102 Management Accounting BDE 3 BF2226 Trade Incoterms and Ship Chartering BDE 3 BF2226 Trade Incoterms and Ship Chartering BDE 3 Year 4 Semester 1 Course Type AU CH4801 Final Year Design Project C 4 CBE PE 1 CBE PE 2 MPE 3 BF3212 Trade, Structured and Supply Chain Finance BF3212 Enterprise Risk Management BDE BF3212 Enterprise Risk Management BDE BF3226 Strategic Management in Commodity Market BDE 2								
CH3140 Unit Operations: Fluid-Fluid Separation C 3 CH3802 Chemical & Biomolecular Engineering Laboratory C 3 HW0288 Engineering Communication FC 2 AD2102 Management Accounting BDE 3 BF2226 Trade Incoterms and Ship Chartering BDE 3 Year 4 Semester 1 Course Type AU CH4801 Final Year Design Project C 4 CBE PE 1 CBE PE 2 BF3226 International Tax and Trading Law BDE 2 BF3226 Strategic Management in Commodity Market BDE 2 BF3226 Strategic Management in Commodity Market BDE 2								
CH3802 Chemical & Biomolecular Engineering Laboratory 5 HW0288 Engineering Communication FC 2 AD2102 Management Accounting BDE 3 BF2226 Trade Incoterms and Ship Chartering BDE 3 Year 4 Semester 1 Course Type AU CH4801 Final Year Design Project C 4 CBE PE 1 CBE PE 2 MPE 3 BF3212 Trade, Structured and Supply Chain Finance BF2302 International Tax and Trading Law BDE 2 BF3226 Strategic Management in Commodity Market BDE 2 BF3226 Strategic Management in Commodity Market BDE 2								
HW0288 Engineering Communication FC 2 AD2102 Management Accounting BDE 3 BF2226 Trade Incoterms and Ship Chartering BDE 3 FYear 4 Semester 1 Course Type AU CH4801 Final Year Design Project C 4 CBE PE 1 CBE PE 2 BF2302 International Tax and Trading Law BDE 2 BF3226 Strategic Management in Commodity Market TC 2 AD2102 AD2 AD3 Year 4 Semester 2 Course Type COurse Type CH4801 Final Year Design Project C CH4801 Final Year Design Project C CH4801 Final Year Design Project C BF3212 Trade, Structured and Supply Chain Finance Finance Enterprise Risk Management BDE BF3213 BF3213 Enterprise Risk Management BDE Strategic Management in Commodity Market BDE 2						3		
AD2102 Management Accounting BF2226 Trade Incoterms and Ship Chartering 25 Year 4 Semester 1 Course Type AU CH4801 Final Year Design Project CBE PE 1 CBE PE 2 BF2302 International Tax and Trading Law BDE 2 BF3226 Strategic Management in Commodity Market BDE 2 BF3226 Strategic Management in Commodity Market BDE 3 Year 4 Semester 2 Course Type COurse Type COurse CH4801 Final Year Design Project C 4 CH4801 Final Year Design Project C C BF3212 Trade, Structured and Supply Chain Finance Finance BF3213 Enterprise Risk Management BDE BF3216 Strategic Management in Commodity Market BDE 2								5 Engineering Communication
Provided Incoterms and Ship Chartering Type AU Course Type AU Ch4801 Final Year Design Project CBE PE 1 CBE PE 2 MPE 3 CBF2302 International Tax and Trading Law BDE 2 BF3226 Strategic Management in Commodity Market BDE 3 Year 4 Semester 2 Course Type CH4801 Final Year Design Project C 4 CH4801 Final Year Design Project C CH4801 Final Year Design Project C CH4801 Final Year Design Project C BF3212 Trade, Structured and Supply Chain Finance BF3213 Enterprise Risk Management BDE BF3213 Enterprise Risk Management BDE								
Year 4 Semester 1 Course Type AU CH4801 Final Year Design Project CBE PE 1 CBE PE 2 MPE 3 BF2302 International Tax and Trading Law BDE 2 BF3226 Strategic Management in Commodity Market BDE 2 BF3226 Trade, Structured and Supply Chain Finance BDE 2 BF3226 Strategic Management in Commodity Market BDE 2								
Course CH4801 Final Year Design Project CBE PE 1 CBE PE 2 MPE 3 CBE PE 2 MPE 3 BF3212 Trade, Structured and Supply Chain Finance BF3202 International Tax and Trading Law BDE 2 BF3226 Strategic Management in Commodity Market BDE 2 BF3226 Trade, Structured and Supply Chain Finance BF3213 Enterprise Risk Management BDE 2 BF3210 Enterprise Risk Management	10				•	25		
CH4801 Final Year Design Project C 4 CH4801 Final Year Design Project C C CBE PE 1 MPE 3 BF3212 Trade, Structured and Supply Chain Finance Enterprise Risk Management BDE BF2302 International Tax and Trading Law BDE 2 BF3226 Strategic Management in Commodity Market BDE 2	AU	Type	mester 2			ΔU	Type	emester 1
CBE PE 1 MPE 3 BF3212 Trade, Structured and Supply Chain Finance BDE CBE PE 2 MPE 3 BF3213 Enterprise Risk Management BDE BF2302 International Tax and Trading Law BDE 2 BF3226 Strategic Management in Commodity Market BDE 2 14	4		Final Year Design Project		•			Final Year Design Project
CBE PE 2 MPE 3 BF3213 Enterprise Risk Management BDE BF2302 International Tax and Trading Law BDE 2 BF3226 Strategic Management in Commodity Market BDE 2	2		· .					
BF2302 International Tax and Trading Law BDE 2 BF3226 Strategic Management in Commodity Market BDE 2	2							
BF3226 Strategic Management in Commodity Market BDE 2 14		DDE	Enterprise Man Management					
	8				•	14		
Total (AU)	146 147*		Total (AU)					

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