BSc in Chemistry and Biological Chemistry with 2nd Major in Business - International Trading (CHITG)

AY2023 - 2024 Intake onwards

FYP with Professional Attachment

		Number of Academic Units (AU)									
D	Year of	Major Re	quirement	Interdis	ciplinary	Broadening and					
Programme Study		Core (C) Major PE (MPE) Cor		Common Core (CC)	Foundational Core (FC)	Deepening Electives (BDE)	Total				
	1	17/18*		6		12	35/36*				
Chemistry and	2	21		11	3	8	43				
Biological	3	18			7	9	34				
Chemistry	4		22			6	28				
	Total	56/57*	22	17	10	35	140/141*				

BSc in Chemistry and Biological Chemistry with 2nd Major in Business - International Trading (ITG)

Category		AU	Total AU	
	Common Core (University-level)			
	CC0001 Inquiry and Communication in the Interdisciplinary World	2		
	CC0002 Navigating the Digital World	2		
	CC0003 Ethics & Civics in a Multi-Cultural World	2		
	CC0005 Healthy Living & Wellbeing	3	1	
	CC0006 Sustainability: Society Fronomy & Environment	3	17	
nterdisciplinary	CC0007 Science & Technology for Humanity	3		
Collaborative	ML0004 Career and Entrepreneurial Development for the Future			
Core (ICC)	World	2		
	Foundational Core (College-level)			
	HW0218 Communication Across the Sciences	2		
	PS0002 Introduction to Data Science and Artificial Intelligence	3	10	
	CM4082 Professional Attachment	5		
		•	•	
	CHEM Core			
	CM1001 Foundations of Chemistry I	4		
	CM1002 Foundations of Chemistry II	4		
	MH1802 Calculus for the Sciences	4		
	CM1804 Mathematics for Chemistry	2		
	PH1011 Physics or PH1012* Physics A	3/4*		
	CM2021 Inorganic and Bioinorganic Chemistry	3		
	CM2011 Analytical Chemistry	3		
	CM2061 Chemistry & Biological Chemistry Laboratory 1	3		
	PS0001 Introduction to Computational Thinking	3		
Maian	CM2031 Organic and Bioorganic Chemistry	3	56/57*	
Major	CM2041 Physical and Biophysical Chemistry 1	3		
Requirement	CM2062 Chemistry & Biological Chemistry Laboratory 2	3		
	CM3011 ^{&} Chemical Spectroscopy and Applications	3		
	CM3041 ^{&} Physical and Biophysical Chemistry 2	3		
	CM3062 Chemistry & Biological Chemistry Laboratory 4	3		
	CM3031 ^{&} Organic Reaction Mechanisms and Synthesis	3		
	CM3021 ^{&} Organometallic Chemistry	3		
	CM3061 Chemistry & Biological Chemistry Laboratory 3	-		
	CHEM Major Prescribed Electives (MPE)			
	CM4080 Honours Project 1	10	22	
	4 x MPEs	12		

	Business - International Trading Compulsory Courses		
	1) AB1201 Financial Management	3	
	2) AB1501 Marketing	3	
	3) AD1102 Financial Accounting	3	
2nd Major in	4) AD2102 Management Accounting	3	
Business -	5) BE1402 Business Operations & Process	3	
International	6) BF2226 Trade Incoterms & Ship Chartering	3	31
Trading (ITG)	7) BF2227 Commodity Markets	3	31
rrauling (rrd)	8) BF2302 International Tax & Trading Law	2	
	9) BF3212 Trade, Structured & Supply Chain Finance	2	
	10) BF3213 Enterprise Risk Management in Commodity Markets	2	
	11) BF3214 Commodities Trading	2	
	12) BF3226 Strategic Management in Commodity Market	2	
BDE	Any 2 BDE	4	4

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

 $^{^{\&}amp;}$ CM3011, CM3021. CM3031, CM3041 are offered in both semesters.

-	Study Plan for AY2023-2024 intake						
FYP with Pi	rofessional Attachment Option						
Year 1 Sem Course	nester 1	Tuno	A11	Year 1 Sen Course	nester 2	Tuno	AU
CM1001	Foundations of Chemistry I	Type C	<u>AU</u> 4	CM1002	Foundations of Chemistry II	Type C	4
MH1802	Calculus for the Sciences	С	4	CM1804	Mathematics for Chemistry	С	2
CC0002	Navigating the Digital World	cc	2	PH1011/	Physics or	C	3
				•	Physics A (For students without 'A'	•	
AB1501	Marketing	BDE	3	PH1012*	Level Physics)	С	4
BE1402	Business Operations & Process	BDE	3	CC0001	Inquiry and Communication in an interdisciplinary World	CC	2
				CC0003	Ethics & Civics in a Multi-Cultural World	CC	2
HW0001	Introduction to Academic Communicat	ion [#]		AD1102	Financial Accounting	BDE	3
				AB1201	Financial Management	BDE	3
for studer	nts who have not cleared QET		16				19/20
Year 2 Sem	nester 1			Year 2 Sen	nester 2		
Course		Туре	AU	Course		Type	AU
CM2011	Analytical and Bioanalytical Chemistry	С	3	CM2031	Organic and Bioorganic Chemistry	С	3
CM2021	Inorganic and Bioinorganic Chemistry	С	3	CM2041	Physical and Biophysical Chemistry 1	С	3
CM2061	Chemistry & Biological Chemistry Laboratory 1	С	3	CM2062	Chemistry & Biological Chemistry Laboratory 2	С	3
PS0001	Introduction to Computational Thinking	С	3	PS0002	Introduction to Data Science and Artificial Intelligence	FC	3
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	AD2102	Management Accounting	BDE	3
CC0005	Healthy Living & Wellbeing	CC	3	BF2227	Commodity Markets	BDE	3
BF3214	Commodities Trading	BDE	2				
			22				21
Year 3 Sem	nester 1			Year 3 Sen	nester 2		
Course		Type	AU	Course		Туре	AU
CM3xxx ^{&}	CHEM-Core	С	3	CM3xxx ^{&}	CHEM-Core	C	3
CM3xxx ^{&}	CHEM-Core	С	3	CM3xxx ^{&}	CHEM-Core	С	3
CM3062	Chemistry & Biological Chemistry	С	3	CM3061	Chemistry & Biological Chemistry	С	3
CIVI3002	Laboratory 4	C	3	CIVISUOI	Laboratory 3	C	3
BF2302	International Tax and Trading Law	BDE	2	BF2226	Trade Incoterms & Ship Chartering	BDE	3
	BDE 1	BDE	2	HW0218	Communication Across the Sciences	FC	2
	BDE 2	BDE	2				
				Year 3 Spe			_
				CM4082	Professional Attachment	FC	5
			15				19
Year 4 Sem	nester 1			Year 4 Sen	nester 2		
Course		Туре	AU	Course		Туре	AU
	CHEM MPE1	MPE	3	CM4080	Honours Project 1	MPE	10
	CHEM MPE2	MPE	3	BF3212	Trade, Structured & Supply Chain Finance	BDE	2
	CHEM MPE3	MPE	3	BF3213	Enterprise Risk Management in Commodity Markets	BDE	2
	CHEM MPE4	MPE	3	BF3226	Strategic Management in Commodity Market	BDE	2
			12				16

This study plan is meant as a guide.
*Students without 'A' Level Physics will take 'PH1012 Physics A' (4AU).

 $^{^{\&}amp;}$ CM3xxx refers to CM3011, CM3021, CM3031, CM3041 - These courses are offered in both semesters

BSc in Chemistry and Biological Chemistry with 2nd Major in Business - International Trading (CHITG)

AY2023 - 2024 Intake onwards

with Professional Internship

		Number of Academic Units (AU)									
Dua	Year of	Major Requirement		Interdisc	ciplinary	Broadening and					
Programme	Study	Core (C)	Major PE (MPE)	Common Core (CC)	Foundational Core (FC)	Deepening Electives (BDE)	Total				
	1	17/18*		6		12	35/36*				
Chemistry and	2	21		11	3	8	43				
Biological	3	18			2	14	34				
Chemistry	4		12		10	6	28				
	Total	56/57*	12	17	15	40	140/141*				

BSc in Chemistry and Biological Chemistry with 2nd Major in Business - International Trading (ITG)

Category		AU	Total AU
	Common Core (University-level)		
	CC0001 Inquiry and Communication in the Interdisciplinary World	2	
	CC0002 Navigating the Digital World	2	
	CC0003 Ethics & Civics in a Multi-Cultural World	2	
	CC0005 Healthy Living & Wellbeing	3	17
Interdicciplinary	CC0006 Sustainability: Society, Economy & Environment	3	17
Interdisciplinary Collaborative	CC0007 Science & Technology for Humanity	3	
Core (ICC)	ML0004 Career and Entrepreneurial Development for the Future World	2	
core (icc)	INLOOD4 Career and Entrepreneurial Development for the ruture world	2	
	Foundational Core (College-level)		
	HW0218 Communication Across the Sciences	2	
	PS0002 Introduction to Data Science and Artificial Intelligence	3	15
	CM4081 Professional Internship	10	
	CHEM Core		
	CM1001 Foundations of Chemistry I	4	
	CM1002 Foundations of Chemistry II	4	
	MH1802 Calculus for the Sciences	4	
	CM1804 Mathematics for Chemistry	2	
	PH1011 Physics or PH1012* Physics A	3/4*	
	CM2021 Inorganic and Bioinorganic Chemistry	3	
	CM2011 Analytical Chemistry	3	
	CM2061 Chemistry & Biological Chemistry Laboratory 1	3	
	PS0001 Introduction to Computational Thinking	3	
Major	CM2031 Organic and Bioorganic Chemistry	3	56/57*
Requirement	CM2041 Physical and Biophysical Chemistry 1	3	
	CM2062 Chemistry & Biological Chemistry Laboratory 2	3	
	CM3011 ^{&} Chemical Spectroscopy and Applications	3	
	CM3041 ^{&} Physical and Biophysical Chemistry 2	3	
	CM3062 Chemistry & Biological Chemistry Laboratory 4	3	
	CM3031 ^{&} Organic Reaction Mechanisms and Synthesis	3	
	CM3021 ^{&} Organometallic Chemistry	3	
	CM3061 Chemistry & Biological Chemistry Laboratory 3	3	
	CHEM Major Prescribed Electives (MPE)		
	4 x MPEs	12	12

	Business - International Trading Compulsory Courses		
	1) AB1201 Financial Management	3	
2nd Major in	2) AB1501 Marketing	3	
	3) AD1102 Financial Accounting	3	
	4) AD2102 Management Accounting	3	
-	5) BE1402 Business Operations & Process	3	
Business - International	6) BF2226 Trade Incoterms & Ship Chartering	3	31
	7) BF2227 Commodity Markets	3	31
Trading (ITG)	8) BF2302 International Tax & Trading Law	2	
	9) BF3212 Trade, Structured & Supply Chain Finance	2	
	10) BF3213 Enterprise Risk Management in Commodity Markets	2	
	11) BF3214 Commodities Trading	2	
	12) BF3226 Strategic Management in Commodity Market	2	
BDE	Any 3 BDE	9	9
Total			140/141*

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

[&]amp; CM3011, CM3021. CM3031, CM3041 are offered in both semesters.

	nistry and Biological Chemistry with 2n Study Plan for AY2023-2024 intake	d Major i	n Business	- International T	rading (CHITG)		
with Profes	sional Internship						
Year 1 Sem	ester 1			Year 1 Sen	nester 2		
Course CM1001	Foundations of Chemistry I	Type C	<u>AU</u> 4	Course CM1002	Foundations of Chemistry II	Type C	AU 4
MH1802	Calculus for the Sciences	С	4	CM1804	Mathematics for Chemistry	C	2
CC0002	Navigating the Digital World	CC	2	PH1011/	Physics or	C	3
AB1501	Marketing	BDE	3	PH1012*	Physics <u>A</u> (For students without 'A' Level Physics)	С	4
BE1402	Business Operations & Process	BDE	3	CC0001	Inquiry and Communication in an interdisciplinary World	СС	2
				CC0003	Ethics & Civics in a Multi-Cultural World	CC	2
HW0001	Introduction to Academic Communicat	ion [#]		AD1102 AB1201	Financial Accounting Financial Management	BDE BDE	3
# for studen	ts who have not cleared QET		16				19/20*
yor studen Year 2 Sem	·			Year 2 Sen	t 3		
Course	ester 1	Туре	AU	Course	nester 2	Туре	AU
CM2011	Analytical and Bioanalytical Chemistry	С	3	CM2031	Organic and Bioorganic Chemistry	С	3
CM2021	Inorganic and Bioinorganic Chemistry	С	3	CM2041	Physical and Biophysical Chemistry 1	С	3
CM2061	Chemistry & Biological Chemistry Laboratory 1	С	3	CM2062	Chemistry & Biological Chemistry Laboratory 2	С	3
PS0001	Introduction to Computational Thinking	С	3	PS0002	Introduction to Data Science and Artificial Intelligence	FC	3
CC0006	Sustainability: Society, Economy & Environment	СС	3	CC0007	Science & Technology for Humanity	CC	3
ML0004	Career and Entrepreneurial Development for the Future World	CC	2	AD2102	Management Accounting	BDE	3
CC0005 BF3214	Healthy Living & Wellbeing Commodities Trading	CC BDE	3 2	BF2227	Commodity Markets	BDE	3
			22				21
Year 3 Sem	ester 1			Year 3 Sen	nester 2		
Course		Туре	AU	Course		Туре	AU
CM3xxx ^{&}	CHEM-Core	С	3	CM3xxx ^{&}	CHEM-Core	С	3
CM3xxx ^{&}	CHEM-Core	С	3	CM3xxx ^{&}	CHEM-Core	С	3
CM3062	Chemistry & Biological Chemistry	С	3	CM3061	Chemistry & Biological Chemistry	С	3
BF2302	Laboratory 4 International Tax and Trading Law	BDE	2	BF2226	Laboratory 3 Trade Incoterms & Ship Chartering	BDE	3
DFZ3UZ	BDE 1	BDE	3	BF2220	BDE 3	BDE	3
	BDE 2	BDE	3	HW0218	Communication Across the Sciences	FC	2
			17				17
Year 4 Sem	ester 1			Year 4 Sen	nester 2		
Course		Туре	AU	Course		Туре	AU
CM4081	Professional Internship	FC	10		CHEM MPE1	MPE	3
					CHEM MPE2	MPE	3
					CHEM MPE3	MPE	3
					CHEM MPE4	MPE	3
				BF3212	Trade, Structured & Supply Chain Finance	BDE	2
				BF3213	Enterprise Risk Management in Commodity Markets	BDE	2
				BF3226	Strategic Management in Commodity Market	BDE	2
			10				18
					Total (AU)		140/141

This study plan is meant as a guide.

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

& CM3xxx refers to CM3011, CM3021, CM3031, CM3041 - These courses are offered in both semesters

BSc in Chemistry and Biological Chemistry with 2nd Major in Business - International Trading (CHITG)

AY2023 - 2024 Intake onwards

with Professional Internship and FYP

		Number of Academic Units (AU)									
	Year of	Major Requirement		Interdisc	ciplinary	Broadening and					
Programme	Study	Core (C)	Major PE (MPE)	Common Core (CC)	Foundational Core (FC)	Deepening Electives (BDE)	Total				
	1	17/18*		6		12	35/36*				
Chemistry and	2	21		11	3	8	43				
Biological	3	18	9		2	5	34				
Chemistry	4		13		10	6	29				
	Total	56/57*	22	17	15	31	141/142*				

BSc in Chemistry and Biological Chemistry with 2nd Major in Business - International Trading (ITG)

Category		AU	Total AU		
	Common Core (University-level)				
	CC0001 Inquiry and Communication in the Interdisciplinary World	2			
	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	17		
Interdisciplinary	CC0007 Science & Technology for Humanity	3			
Collaborative Core (ICC)	ML0004 Career and Entrepreneurial Development for the Future World	2			
	Foundational Core (College-level)				
	HW0218 Communication Across the Sciences	2			
	PS0002 Introduction to Data Science and Artificial Intelligence	3	15		
	CM4081 Professional Internship	10			
	CN14001 1 Totessional internship	10	<u> </u>		
	CHEM Core				
	CM1001 Foundations of Chemistry I	4			
	CM1002 Foundations of Chemistry II	4			
	MH1802 Calculus for the Sciences	4			
	CM1804 Mathematics for Chemistry	2			
	PH1011 Physics or PH1012* Physics A	3/4*			
	CM2021 Inorganic and Bioinorganic Chemistry	3			
	CM2011 Analytical Chemistry	3			
	CM2061 Chemistry & Biological Chemistry Laboratory 1	3			
	PS0001 Introduction to Computational Thinking	3			
	CM2031 Organic and Bioorganic Chemistry	3	56/57*		
Major	CM2041 Physical and Biophysical Chemistry 1	3			
Requirement	CM2062 Chemistry & Biological Chemistry Laboratory 2	3			
	CM3011 ^{&} Chemical Spectroscopy and Applications	3			
	CM3041 [®] Physical and Biophysical Chemistry 2	3			
	CM3062 Chemistry & Biological Chemistry Laboratory 4	3			
	CM3031 ^{&} Organic Reaction Mechanisms and Synthesis	3			
	CM3021 ^{&} Organometallic Chemistry	3			
	CM3061 Chemistry & Biological Chemistry Laboratory 3	3			
	CHEM Major Prescribed Electives (MPE)				
	CM4080 Honours Project 1	10	22		
	4 x MPEs	12			

	Business - International Trading Compulsory Courses			
	1) AB1201 Financial Management	3		
	2) AB1501 Marketing	3		
	3) AD1102 Financial Accounting	3		
2nd Major in	4) AD2102 Management Accounting	3		
Business -	5) BE1402 Business Operations & Process	3		
International	6) BF2226 Trade Incoterms & Ship Chartering	3	31	
Trading (ITG)	7) BF2227 Commodity Markets	3	31	
rrauling (rrd)	8) BF2302 International Tax & Trading Law	2		
	9) BF3212 Trade, Structured & Supply Chain Finance	2		
	10) BF3213 Enterprise Risk Management in Commodity Markets	2		
	11) BF3214 Commodities Trading	2		
	12) BF3226 Strategic Management in Commodity Market	2		
Total			141/142*	

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

[&]amp; CM3011, CM3021. CM3031, CM3041 are offered in both semesters.

	nistry and Biological Chemistry with 2nd Study Plan for AY2023-2024 intake						
with Profes	sional Internship and FYP						
Year 1 Sem	ester 1			Year 1 Sen	nester 2		
Course		Туре	AU	Course		Туре	AU
CM1001	Foundations of Chemistry I	С	4	CM1002	Foundations of Chemistry II	С	4
MH1802 CC0002	Calculus for the Sciences Navigating the Digital World	C CC	4 2	CM1804 PH1011/	Mathematics for Chemistry Physics or	C C	2
C0002	Navigating the Digital World	CC	2	PHIOII/	Physics <u>or</u> Physics A (For students without 'A'	C	3
AB1501	Marketing	BDE	3	PH1012*	Level Physics)	С	4
BE1402	Business Operations & Process	BDE	3	CC0001	Inquiry and Communication in an interdisciplinary World Ethics & Civics in a Multi-Cultural	CC	2
				CC0003	World	CC	2
HW0001	Introduction to Academic Communicati	ion #		AD1102	Financial Accounting	BDE	3
				AB1201	Financial Management	BDE	3
			16				19/2
for studen	ts who have not cleared QET						
Year 2 Sem	ester 1			Year 2 Sen	nester 2		
Course		Туре	AU	Course		Туре	AU
CM2011	Analytical and Bioanalytical Chemistry	С	3	CM2031	Organic and Bioorganic Chemistry	С	3
CM2021	Inorganic and Bioinorganic Chemistry	С	3	CM2041	Physical and Biophysical Chemistry 1	С	3
CM2061	Chemistry & Biological Chemistry Laboratory 1	С	3	CM2062	Chemistry & Biological Chemistry Laboratory 2	С	3
PS0001	Introduction to Computational Thinking	С	3	PS0002	Introduction to Data Science and Artificial Intelligence	FC	3
CC0006	Sustainability: Society, Economy & Environment	СС	3	CC0007	Science & Technology for Humanity	CC	3
. 41 000 4	Career and Entrepreneurial	CC	2	AD2102	Management Accounting	BDE	3
ML0004	Development for the Future World	CC	2	DECCO	Commodity Morkets	פטר	2
CC0005 BF3214	Healthy Living & Wellbeing Commodities Trading	CC BDE	3 2	BF2227	Commodity Markets	BDE	3
			22				21
Year 3 Sem	ester 1			Year 3 Sen	nester 2		
Course	ico. 1	Туре	AU	Course		Туре	AU
CM3xxx ^{&}	CHEM-Core	С	3	CM3061	Chemistry & Biological Chemistry Laboratory 3	С	3
CM3xxx ^{&}	CHEM-Core	С	3	BF2226	Trade Incoterms & Ship Chartering	BDE	3
CM3xxx ^{&}	CHEM-Core	С	3	HW0218	Communication Across the Sciences	FC	2
CM3xxx ^{&}	CHEM-Core	С	3		CHEM MPE 1	MPE	3
	Chemistry & Biological Chemistry						
CM3062	Laboratory 4	С	3		CHEM MPE 2	MPE	3
BF2302	International Tax and Trading Law	BDE	2		CHEM MPE 3	MPE	3
			17				17
							17
Year 4 Sem	ester 1			Year 4 Sen	nester 2		
Course		Туре	AU	Course		Type	AU
CM4081	Professional Internship	FC	10	CM4080	Honours Project 1	MPE	10
				BF3212	Trade, Structured & Supply Chain Finance	BDE	2
				BF3213	Enterprise Risk Management in	BDE	2
					Commodity Markets CHEM MPE 4	MPE	3
					Strategic Management in Commodity		
				BF3226	Market	BDE	2
			10				19
					Total (AU)		141/1

This study plan is meant as a guide. *Students without 'A' Level Physics will take 'PH1012 Physics A' (4AU).

 $^{^{} ilde{8}}$ CM3xxx refers to CM3011, CM3021, CM3031, CM3041 - These courses are offered in both semesters