## BSc in Chemistry and Biological Chemistry with 2nd Major in Entrepreneurship (CHET)

AY2023 - 2024 Intake onwards

with Professional Internship

		Number of Academic Units (AU)								
Programme	Year of Study	Major Red	quirement		ciplinary Itive Core	Broadening and Deepening	Total			
		Core (C)	Major PE (MPE)	Common Core (CC)	Foundational Core (FC)	Electives (BDE)				
Chemistry and	1	17/18*		9		9	35/36*			
Biological	2	21		8	3	6	38			
Chemistry with	3	18			2	13	33			
2nd major in	4		12		10	4	26			
Entrepreneurship	Total	56/57*	12	17	15	32	132/133*			

BSc in Chemistry and Biological Chemistry with 2nd Major in Entrepreneurship (CHET)

Category			AU	Total AU	
	Common C	Core (University-level)			
	CC0001 Ind	quiry and Communication in the Interdisciplinary World	2		
	CC0002 Na	vigating the Digital World	2		
	CC0003 Eth	nics & Civics in a Multi-Cultural World	2		
	CC0005 He	ealthy Living & Wellbeing	3	17	
Interdisciplinary Collaborative Core	CC0006 Su	stainability: Society, Economy & Environment	3		
(ICC)	CC0007 Sci	ience & Technology for Humanity	3		
( /	ML0004 Ca	areer and Entrepreneurial Development for the Future	2		
	Foundatio	nal Core (College-level)			
	HW0218 C	ommunication Across the Sciences	2	5	
	PS0002 Int	roduction to Data Science and Artificial Intelligence	3		
			-		
	CHEM Core	e			
	CM1001	Foundations of Chemistry I	4		
		Foundations of Chemistry II	4		
	MH1082	Calculus for the Sciences	4		
	CM1804	Mathematics for Chemistry	2		
	PH1011	Physics or PH1012* Physics A	3/4*		
	CM2011	Analytical and Bioanalytical Chemistry	3		
	CM2021	Inorganic and Bioinorganic Chemistry	3		
l	CM2061	Chemistry & Biological Chemistry Laboratory 1	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		
	PS0001	Introduction to Computational Thinking	3		
	CM3011 <sup>&amp;</sup>	Chemical Spectroscopy and Applications	3		
	CM3041 <sup>&amp;</sup>	Physical and Biophysical Chemistry 2	3		
	CM3062	Chemistry & Biological Chemistry Laboratory 4	3		
	CM3031 <sup>&amp;</sup>	Organic Reaction Mechanisms and Synthesis	3		
	CM3021 <sup>&amp;</sup>	Organometallic Chemistry	3		
	CM3061	Chemistry & Biological Chemistry Laboratory 3	3		
	CHEM Maj	or Prescribed Electives (MPE)			
	4 x MPEs		12	12	

otal						
roadening and	l Deepenin	g Electives (BDE)		7		
	Stadents	are responsible to plan for their zilu mujor courses				
	Students	are responsible to plan for their 2nd major courses				
	Elective Co	ourses (at least 4 courses)	13			
	CM4081	Professional Internship				
		OR	10^			
(BDEs)	CM4076	Overseas Entrepreneurship Programme (6-MONTH)				
intrepreneurship	Compulsory Experiential Programme					
2nd Major in						
	ET5214	Financing Entrepreneurial Ventures	3			
	ET5212	Entrepreneurial Ecosystems  Managing New Ventures	3			
	ET5211 ET5212	Technopreneurial Mindset	3			
	Entrepren	2				

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

<sup>&</sup>amp; CM3011, CM3021. CM3031, CM3041 are offered in both semesters.

Suggested S	nistry and Biological Chemistry with 2nd I Study Plan for AY2023-2024 intake sional Internship	Major in	Entrepren	eurship (CHET)			
Year 1 Sem	ester 1	<b>-</b>		Year 1 Sem	nester 2	<b></b>	•••
Course CM1001	Foundations of Chemistry I	<b>Type</b> C	<u>AU</u> 4	Course CM1002	Foundations of Chemistry II	<b>Type</b> C	<b>AU</b> 4
MH1802	Calculus for the Sciences	С	4	CM1804	Mathematics for Chemistry	С	2
	Inquiry and Communication in the				·		
CC0001	Interdisciplinary World	CC	2	PH1011/	Physics <u>or</u>	С	3
CC0002	Navigating the Digital World	СС	2	PH1012*	Physics A (For students without 'A' Level Physics)	С	4
CC0005	Healthy Living & Well-being	CC	3	CC0003	Ethics & Civics in a Multi-Cultural World	CC	2
ET5211	Technopreneurial Mindset	BDE	3	ET5213	Managing New Ventures	BDE	3
HW0001	Introduction to Academic Communicati	on#			BDE 1	BDE	3
			18				17/18*
<sup>#</sup> for studen	ts who have not cleared QET						
Year 2 Sem	ester 1			Year 2 Sem	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	СС	3
ML0004	Career and Entrepreneurial	CC	2	ET5214	Financing Entrepreneurial Ventures	BDE	3
ET5212	Development for the Future World Entrepreneurial Ecosystems	BDE	3				
			20				18
Year 3 Sem	ester 1			Year 3 Sem	nester 2		
Course		Туре	AU	Course		Туре	AU
CM3xxx <sup>&amp;</sup>	CHEM-Core	С	3	CM3xxx <sup>&amp;</sup>	CHEM-Core	С	3
CM3xxx <sup>&amp;</sup>	CHEM-Core	С	3	CM3xxx <sup>&amp;</sup>	CHEM-Core	С	3
CM3062	Chemistry & Biological Chemistry	С	3	CM3061	Chemistry & Biological Chemistry	С	3
CIVISOOL	Laboratory 4				Laboratory 3		
	Entrepreneurship Elective 1 BDE 2	BDE	3 2	HW0218	Communication Across the Sciences	FC	2 3
	BDE 3	BDE BDE	2		Entrepreneurship Elective 3 Entrepreneurship Elective 4	BDE BDE	3
	-						
			16				17
Year 4 Sem	ester 1			Year 4 Sem	nester 2		
Course		Туре	AU	Course		Туре	AU
CM4076	Overseas Entrepreneurship	FC/			CHEM MPE1	MPE	3
	Programme (6-MONTH)	BDE	10				
	OR	FC/	10		CHEM MPE2	MPE	3
CM4081	Professional Internship	BDE			CHEM MPE3	MPE	3
					CHEM MPE4	MPE	3
					Entrepreneurship Elective 2	BDE	4
			10				16
					Total (AU)		132/133*
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This study plan is meant as a guide.
\*Students without 'A' Level Physics will take 'PH1012 Physics A' (4AU).

<sup>&</sup>lt;sup>&</sup> CM3xxx refers to CM3011, CM3021, CM3031, CM3041 - These courses are offered in both semesters

## BSc in Chemistry and Biological Chemistry with 2nd Major in Entrepreneurship (CHET)

AY2023 - 2024 Intake onwards

with Professional Internship and FYP

		Number of Academic Units (AU)									
Programme	Year of Study	Major Red	quirement	Interdisc Collabora		Broadening and Deepening	Total				
		Core (C)	Major PE (MPE)	Common Core (CC)	Foundational Core (FC)	Electives (BDE)					
Chemistry and	1	17/18*		9		6	32/33*				
Biological	2	21		8	3	6	38				
Chemistry with 2nd	3	18	6		2	13	39				
major in	4		16		10		26				
Entrepreneurship	Total	56/57*	22	17	15	25	135/136*				

BSc in Chemistry and Biological Chemistry with 2nd Major in Entrepreneurship (CHET)

Category	and Biological Chemistry with 2nd Major in Entrepreneurship (CHE	AU	Total AU	
<del>-</del> •	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	
Interdisciplinary	CC0006 Sustainability: Society, Economy & Environment	3	17	
Collaborative	CC0007 Science & Technology for Humanity	3		
Core (ICC)	ML0004 Career and Entrepreneurial Development for the Future	2		
	World	2		
	Foundational Core (College-level)			
	HW0218 Communication Across the Sciences	2	5	
	PS0002 Introduction to Data Science and Artificial Intelligence	3	5	
	CHEM Core			
	CM1001 Foundations of Chemistry I	4		
	CM1002 Foundations of Chemistry II	4		
	MH1082 Calculus for the Sciences	4		
	CM1804 Mathematics for Chemistry	2		
	PH1011 Physics or PH1012* Physics A	3/4*		
	CM2011 Analytical and Bioanalytical Chemistry	3		
	CM2021 Inorganic and Bioinorganic Chemistry	3		
	CM2061 Chemistry & Biological Chemistry Laboratory 1	3		
	CM2031 Organic and Bioorganic Chemistry	3	56/57*	
Major	CM2041 Physical and Biophysical Chemistry 1	3	30,37	
Requirement	CM2062 Chemistry & Biological Chemistry Laboratory 2	3		
riequii emene	PS0001 Introduction to Computational Thinking	3		
	CM3011 <sup>&amp;</sup> Chemical Spectroscopy and Applications	3		
	CM3041 <sup>&amp;</sup> Physical and Biophysical Chemistry 2	3		
	CM3062 Chemistry & Biological Chemistry Laboratory 4	3		
	CM3031 <sup>&amp;</sup> Organic Reaction Mechanisms and Synthesis	3		
	CM3021 <sup>&amp;</sup> 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		

<b>Total</b>				135/136*	
	Students	are responsible to plan for their 2nd major courses			
	Elective Co	ourses (at least 4 courses)	13		
	CM4081	Professional Internship			
		OR	10^		
(BDEs)	CM4076	Overseas Entrepreneurship Programme (6-MONTH)			
Entrepreneurship	Compulso	ry Experiential Programme		35^	
2nd Major in	ET5214	Financing Entrepreneurial Ventures	3		
	ET5213	Managing New Ventures	3		
	ET5212	Entrepreneurial Ecosystems	3		
	ET5211	Technopreneurial Mindset	3		
	Compulso	ry Courses			

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

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

	sional Internship + FYP						
Year 1 Semester 1			A11	Year 1 Semester 2 Course Type			
Course CM1001	Foundations of Chemistry I	<b>Type</b> C	<u>AU</u> 4	CM1002	Foundations of Chemistry II	<b>Type</b> C	<u>AU</u> 4
MH1802	Calculus for the Sciences	C	4	CM1804	Mathematics for Chemistry	C	2
CC0001	Inquiry and Communication in the Interdisciplinary World	CC	2	PH1011/	Physics <u>or</u>	С	3
CC0002	Navigating the Digital World	CC	2	PH1012*	Physics A (For students without 'A' Level Physics)	С	4
CC0005	Healthy Living & Well-being	CC	3	CC0003	Ethics & Civics in a Multi-Cultural World	CC	2
ET5211	Technopreneurial Mindset	BDE	3	ET5213	Managing New Ventures	BDE	3
HW0001	Introduction to Academic Communicati	ion <sup>#</sup>					
			18				14/15
for student	ts who have not cleared QET						
Year 2 Semo	ester 1			Year 2 Sem	nester 2		
Course	Analytical and Bioanalytical	Type	AU	Course		Type	AU
CM2011	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		3	CC0007	Science & Technology for Humanity	CC	3
ML0004	Career and Entrepreneurial  Development for the Future World	CC	2	ET5214	Financing Entrepreneurial Ventures	BDE	3
ET5212	Entrepreneurial Ecosystems	BDE	3				
			20				18
Year 3 Semo	ester 1			Year 3 Sem	nester 2		
Course		Туре	AU	Course		Туре	AU
CM3xxx <sup>&amp;</sup>	CHEM-Core	С	3	CM3xxx <sup>&amp;</sup>	CHEM-Core	С	3
CM3xxx <sup>&amp;</sup>	CHEM-Core	С	3	CM3061	Chemistry & Biological Chemistry Laboratory 3	С	3
CM3xxx <sup>&amp;</sup>	CHEM-Core	С	3	HW0218	Communication Across the Sciences	FC	2
CM3062	Chemistry & Biological Chemistry Laboratory 4	С	3		Entrepreneurship Elective 3	BDE	3
	Entrepreneurship Elective 1	BDE	3		Entrepreneurship Elective 4	BDE	3
	Entrepreneurship Elective 2	BDE	4		CHEM MPE1 CHEM MPE2	MPE MPE	3
			19				20
			-				_3
Year 4 Semo	ester 1	Туре	AU	Year 4 Sem Course	nester 2	Туре	AU
CM4076	Overseas Entrepreneurship	FC/		CM4080	Honours Project 1	MPE	10
CIVI+U/0	Programme (6-MONTH)	BDE	10	CIVI4U8U	•		
Ch 4 4 C C :	OR Desfessional laboration	FC/	10		CHEM MPE3	MPE	3
CM4081	Professional Internship	BDE			CHEM MPE4	MPE	3
			10				16
					Total (AU)		135/13

This study plan is meant as a guide.

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

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