## **BSc in Chemistry and Biological Chemistry with 2nd Major in Data Analytics (CHDA)** AY2023 - 2024 Intake onwards

FYP with Professional Attachment

		Number of Academic Units (AU)							
	Year of	Major Re	Major Requirement Interdisciplinary			Broadening and			
Programme	Study	Core (C)	Major PE (MPE)	Common Core (CC)	Foundational Core (FC)	Deepening Electives (BDE)	Total		
	1	17/18*		9		6	32/33*		
Chemistry and	2	21		8	3	6	38		
Biological	3	18			7	19	44		
Chemistry	4		22			6	28		
	Total	56/57*	22	17	10	37	142/143		
Sc in Chemistry	and Biolog	ical Chemistry	with 2nd Maj	jor in Data An	alytics (CHDA	)			
ategory			-			AU	Total AU		
	Common C	Core (University	/-level)						
	CC0001 Inc	quiry and Comn	nunication in th	e Interdisciplin	ary World	2			
	CC0002 Na	vigating the Dig	gital World			2			
	CC0003 Eth	nics & Civics in a	a Multi-Cultural	World		2			
	CC0005 He	althy Living & V	Vellbeing			3	47		
1 m m m m m m m m m m m m m m m m m m m	CC0006 Su	stainability: Soc	ciety, Economy a	& Environment		3	17		
Interdisciplinary		-	logy for Human			3			
collaborative Core			preneurial Deve	-	e Future				
(ICC)	World			2					
		nal Core (Colleg	2						
		HW0218 Communication Across the Sciences							
		002 Introduction to Data Science and Artificial Intelligence					10		
	CM4082 Pr	rofessional Atta	chment			5			
	CHEM Core	e							
	CM1001	Foundations of	of Chemistry I			4			
	CM1002	Foundations of	of Chemistry II			4			
	MH1082	Calculus for th	e Sciences			4			
	CM1804^	Mathematics	for Chemistry			2			
	PH1011	Physics <u>or</u> PH2	L012* Physics A			3/4*			
	CM2011	Analytical and	Bioanalytical C	hemistry		3			
	CM2021	Inorganic and	Bioinorganic Ch	nemistry		3			
	CM2061	Chemistry & E	iological Chemi	stry Laboratory	/ 1	3			
	CM2031	Organic and B	ioorganic Chem		3				
N 4 - :	CM2041	Physical and E	iophysical Cher	nistry 1		3	56/57*		
Major	CM2062	-	iological Chemi	-	/ 2	3			
Requirement	PS0001^		o Computationa	•		3			
	CM3011 <sup>&amp;</sup>		troscopy and A	-		3			
	CM3041 <sup>&amp;</sup>		siophysical Cher			3			
	CM3062	=	iological Chemi	-	/ 4	3			
	CM3031 <sup>&amp;</sup>		ion Mechanism			3			
	CM3021 <sup>&amp;</sup>	Organometall				3			
	CM3021 CM3061	-	iological Chemi	stry Laboratory	/ 3	3			
	CUERCE -								
	CM4080	Honours Proje	lectives (MPE)			10	22		

	T	
Data Analytics Compulsory Courses		
<ol> <li>Probability and Statistics: MH2500 Probability and Introduction to Statistics</li> </ol>	4	
2) Linear Algebra: CM1804 Mathematics for Chemistry	NA	
3) Data Analysis/Computing: PS0001 Introduction to Computational Thinking	NA	
4) Algorithms: MH1403 Algorithms & Computing	3	
2nd Major in Data 5) Database: BC2402 Designing & Developing Databases (4AU) /		
Analytics (BDEs) EE4791 Database Systems (3AU) / SC2207 Introduction to Database (3AU)	3 - 4	16 - 19
6) Data Mining: MH4510 Statistical Learning & Data Mining (4AU) / IE4483 Artificial Intelligence & Data Mining (3AU) / SC4020 Data Analytics and Mining (3AU)	3 - 4	
7) Data Visualisation/Management: BC2406 Analytics I: Visual and Predictive Techniques (4AU) / SC4023 Big Data Management (3AU) / SC4024 Data Visualization (3AU)	3 - 4	
Data Analytics Electives (Read any 3)		
BC2407 Analytics II: Advanced Predictive Techniques (4AU) BS3008 Computational Biology and Modeling (3AU) BS4017 High-Throughput Bioinformatics (3AU)		
CM4043 <sup>+^</sup> Molecular Modelling: Principles and Applications (3AU)		
CM4044 <sup>+^</sup> Artificial Intelligence in Chemistry (3AU)		
ES2001 Computational Earth Systems Science (4AU)		
MH3400 Algorithms for the Real World (4AU)		
2nd Major in Data MH3500 Statistics (4AU)		
Analytics (BDEs) MH3510 Regression Analysis (4AU)	9 - 12	9 - 12
MH3511 Data Analysis with Computer (3AU)		
MH3701 Basic Optimization (4AU)		
MH4500 Time Series Analysis (4AU)		
MH4513 Survival Analysis (4AU)		
MH4302 Theory of Computing (4AU)		
MH4320 Computational Economics (4AU)		
MH4511 Sampling and Survey (4AU) @ MH4512 Clinical Trials (4AU)		
MH4512 Ciffical Trais (4AO) MH4702 Probabilistic Methods in OR (4AU)		
Students are responsible to plan for their 2nd major courses		
BDE Any 4 BDE	12	12
Total		142 - 149

^Counted towards 2nd major in Data Analytic Compulsory Course

<sup>+</sup> Counted towards CHEM MPE

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

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

#### B.Sci. (Chemistry and Biological Chemistry) with 2nd major in Data Analytics (CHDA) Suggested Study Plan for AY2023-2024 intake

FYP with Professional Attachment

 $^{*}$  for students who have not cleared QET

Year 1 Semester 1

Year 2 Semester 1

Course

CM2011

CM2021

CM2061

PS0001^

CC0006

ML0004

Course		Туре	AU
CM1001	Foundations of Chemistry I	С	4
MH1802	Calculus for the Sciences	С	4
CC0001	Inquiry and Communication in the Interdisciplinary World	СС	2
CC0002	Navigating the Digital World	CC	2
CC0005	Healthy Living & Well-being	СС	3
HW0001	Introduction to Academic Communica	tion <sup>#</sup>	
			15

Year 1 Sem	Year 1 Semester 2							
Course		Туре	AU					
CM1002	Foundations of Chemistry II	С	4					
CM1804^	Mathematics for Chemistry	С	2					
PH1011/	Physics <u>or</u>	С	3					
PH1012*	Physics A (For students without 'A' Level Physics)	С	4					
CC0003	Ethics & Civics in a Multi-Cultural World	CC	2					
	BDE 1	BDE	3					
	BDE 2	BDE	3					

17/18\*

18

FC

5

23

ester 1	Туре	AU	Year 2 Se Course	mester 2
Analytical and Bioanalytical Chemistry	C	3	CM2031	Organic and
Inorganic and Bioinorganic Chemistry	С	3	CM2041	Physical and
Chemistry & Biological Chemistry Laboratory 1	С	3	CM2062	Chemistry & Laboratory 2
Introduction to Computational Thinking	С	3	PS0002	Introduction Artificial Inte
Sustainability: Society, Economy & Environment	CC	3	CC0007	Science & Te
Career and Entrepreneurial Development for the Future World	СС	2	MH1403	Algorithms & Core)
BDE 3	BDE	3		
		20		

ear 2 Sem	ester 2			
ourse		Туре	AU	
M2031	Organic and Bioorganic Chemistry	С	3	
M2041	Physical and Biophysical Chemistry 1	С	3	
M2062	Chemistry & Biological Chemistry Laboratory 2	С	3	
S0002	Introduction to Data Science and Artificial Intelligence	FC	3	
C0007	Science & Technology for Humanity	CC	3	
1H1403	Algorithms & Computing (CHDA- Core)	BDE	3	

Year 3 Sem	/ear 3 Semester 1						
Course		Туре	AU				
CM3xxx <sup>&amp;</sup>	CHEM-Core	С	3				
CM3xxx <sup>&amp;</sup>	CHEM-Core	С	3				
CM3062	Chemistry & Biological Chemistry Laboratory 4	С	3				
BC2402	Designing & Developing Databases (CHDA-Core)	BDE	4				
BC2406	Analytics I: Visual and Predictive Techniques (CHDA-Core)	BDE	4				
MH2500	Probability and Introduction to Statistics (CHDA-Core)	BDE	4				

MH2500	Probability and Introduction to Statistics (CHDA-Core)	BDE	4		CHDA-E
				<u>Year 3 Spe</u> CM4082	ecial Sem Profess
			21		
Year 4 Sem	ester 1			Year 4 Ser	nester 2
Course		Туре	AU	Course	
CM4044 <sup>+</sup> ^	Artificial Intelligence in Chemistry	MPE	3	CM4080	Honour
	CHEM MPE2	MPE	3		
	CHEM MPE3	MPE	3		
	CHEM MPE4	MPE	3		
IE4483	Artificial Intelligence & Data Mining (CHDA-Core)	BDE	3		
	BDE 4	BDE	3		
			18		
					Total (4

Year 3 Sem	nester 2	_	
Course		Туре	AU
CM3xxx <sup>&amp;</sup>	CHEM-Core	С	3
CM3xxx <sup>&amp;</sup>	CHEM-Core	С	3
CM3061	Chemistry & Biological Chemistry Laboratory 3	С	3
HW0218	Communication Across the Sciences	FC	2
MH3500	Statistics (CHDA-Elective 1)	BDE	4
	CHDA-Elective 2	BDE	3

sional Attachment

Year 4 Semester 2									
Course		Туре	AU						
CM4080	Honours Project 1	MPE	10						
			10						
	Total (AU)		142/143*						

This study plan is meant as a guide.

^Counted towards 2nd major in Data Analytic requirements

'+Counted towards CHEM MPE

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

<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 Data Analytics (CHDA)

AY2023 - 2024 Intake onwards

with Professional Internship

	Number of Academic Units (AU)								
	Year of	Major Re	quirement	Interdis	ciplinary	Broadening and			
Programme	Study	Core (C)	Major PE (MPE)	Common Core (CC)	Foundational Core (FC)	Deepening Electives (BDE)	Total		
	1	17/18*		9		6	32/33*		
Chemistry and	2	21		8	3	9	41		
Biological	3	18			2	21	41		
Chemistry	4		12		10	6	28		
	Total	56/57*	12	17	15	42	142/143*		
BSc in Chemistr Category	y and Biolo	gical Chemist	ry with 2nd Ma	ajor in Data Ar	alytics (CHDA	) AU	Total AU		
	Common C	ore (University	-lovel)			AU	TOLATAU		
		•	unication in the	Intordisciplina	ay World	2			
		vigating the Dig		menuscipiiidi	y world	2 2			
			Multi-Cultural	Morld		2			
		althy Living & V		wonu		2			
			iety, Economy 8	Environment			47		
Interdisciplinary		-	ogy for Humani			3 3	17		
Collaborative				-		Э			
Core (ICC)	ML0004 Ca	reer and Entrep	oreneurial Devel	opment for the	Future World	d 2			
	Foundation	al Core (Colleg	e-level)						
	Foundational Core (College-level) HW0218 Communication Across the Sciences					2			
	PS0002 Introduction to Data Science and Artificial Intelligence					2 3	15		
		ofessional Inter	10						
	001100111					10			
	CHEM Core								
	CM1001	Foundations of				4			
	CM1002	Foundations of	of Chemistry II			4			
	MH1082	Calculus for the				4			
	CM1804^	Mathematics	for Chemistry			2			
	PH1011	• —	L012* Physics A			3/4*			
	CM2011	2011 Analytical and Bioanalytical Chemistry							
	CM2021	2021 Inorganic and Bioinorganic Chemistry							
	CM2061	061 Chemistry & Biological Chemistry Laboratory 1							
	CM2031	Organic and Bioorganic Chemistry					56/57*		
Major	CM2041	Physical and E	iophysical Chen	nistry 1		3	50/57		
Requirement	CM2062	Chemistry & E	iological Chemi	stry Laboratory	2	3			
	PS0001^	Introduction t	o Computationa	al Thinking		3			
	CM3011 <sup>&amp;</sup>	Chemical Spec	troscopy and A	pplications		3			
	CM3041 <sup>&amp;</sup>	Physical and E	iophysical Chen	nistry 2		3			
	CM3062								
	CM3031 <sup>&amp;</sup>	Organic React	ion Mechanisms	s and Synthesis		3 3			
	CM3021 <sup>&amp;</sup>	Organometall		-		3			
	CM3061	-	iological Chemi	stry Laboratory	3	3			
	CHEM Majo	or Prescribed E	ectives (MPE)						
	4 x MPEs					12	12		

			142 - 149
3DE	Any 6 BDE	17	17
	Students are responsible to plan for their 2nd major courses		
2nd Major in Data Analytics (BDEs)	BC2407 Analytics II: Advanced Predictive Techniques (4AU) BS3008 Computational Biology and Modeling (3AU) BS4017 High-Throughput Bioinformatics (3AU) CM4043+^ Molecular Modelling: Principles and Applications (3AU) CM4044+^ Artificial Intelligence in Chemistry (3AU) ES2001 Computational Earth Systems Science (4AU) MH3400 Algorithms for the Real World (4AU) MH3500 Statistics (4AU) MH3510 Regression Analysis (4AU) MH3511 Data Analysis with Computer (3AU) MH3701 Basic Optimization (4AU) MH4500 Time Series Analysis (4AU) MH4513 Survival Analysis (4AU) MH4513 Survival Analysis (4AU) MH4511 Sampling and Survey (4AU) MH4512 Clinical Trials (4AU) MH4702 Probabilistic Methods in OR (4AU)	9 - 12	9 - 12
	IE4483 Artificial Intelligence & Data Mining (3AU) / SC4020 Data Analytics and Mining (3AU) 7) Data Visualisation/Management: BC2406 Analytics I: Visual and Predictive Techniques (4AU) / SC4023 Big Data Management (3AU) / SC4024 Data Visualization (3AU) Data Analytics Electives (Read any 3)	3 - 4 3 - 4	
Data Analytics (BDEs)	<ul> <li>5) Database: BC2402 Designing &amp; Developing Databases (4AU) / EE4791</li> <li>Database Systems (3AU) / SC2207 Introduction to Database (3AU)</li> <li>6) Data Mining: MH4510 Statistical Learning &amp; Data Mining (4AU) /</li> </ul>	3 - 4	16 - 19
2nd Major in	4) Algorithms: MH1403 Algorithms & Computing	3	
	3) Data Analysis/Computing: PS0001 Introduction to Computational Thinking	NA	
	<ol> <li>Probability and Statistics: MH2500 Probability and Introduction to Statistics</li> <li>Linear Algebra: CM1804 Mathematics for Chemistry</li> </ol>	4 NA	
	Data Analytics Compulsory Courses		

^Counted towards 2nd major in Data Analytic Compulsory Course

<sup>+</sup> Counted towards CHEM MPE

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

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

### B.Sci. (Chemistry and Biological Chemistry) with 2nd major in Data Analytics (CHDA) Suggested Study Plan for AY2023-2024 intake

with Professional Internship

Year 1 Sem	nester 1		
Course		Туре	AU
CM1001	Foundations of Chemistry I	С	4
MH1802	Calculus for the Sciences	С	4
CC0001	Inquiry and Communication in the Interdisciplinary World	CC	2
CC0002	Navigating the Digital World	СС	2
CC0005	Healthy Living & Well-being	сс	3
HW0001	Introduction to Academic Communicat	ion <sup>#</sup>	
<sup>#</sup> for studer <b>Year 2 Sen</b>	nts who have not cleared QET nester 1		15
Course		Туре	AU
CM2011	Analytical and Bioanalytical Chemistry	С	3
CM2021	Inorganic and Bioinorganic Chemistry	С	3
CM2061	Chemistry & Biological Chemistry Laboratory 1	С	3
PS0001^	Introduction to Computational	_	
	Thinking	C	3

Career and Entrepreneurial

BDE 3

CHEM-Core

CHEM-Core

Laboratory 4

(CHDA-Core)

Development for the Future World

Chemistry & Biological Chemistry

**Designing & Developing Databases** 

Analytics I: Visual and Predictive

Techniques (CHDA-Core) Probability and Introduction to

Statistics (CHDA-Core)

Professional Internship

СС

BDE

Туре

С

С

С

BDE

BDE

BDE

Туре

FC

2

3

20

AU

3

3

3

4

4

4

21

AU

10

10

ML0004

Course

CM3xxx<sup>&</sup>

CM3xxx<sup>&</sup>

CM3062

BC2402

BC2406

MH2500

Course

CM4081

Year 4 Semester 1

Year 3 Semester 1

Year 1 Sem	lester 2		
Course		Туре	AU
CM1002	Foundations of Chemistry II	С	4
CM1804^	Mathematics for Chemistry	С	2
PH1011/	Physics <u>or</u>	С	3
PH1012*	Physics A (For students without 'A' Level Physics)	С	4
CC0003	Ethics & Civics in a Multi-Cultural World	CC	2
	BDE 1	BDE	3
	BDE 2	BDE	3

17/18\*

Year 2 Sem Course	ester 2	Туре	AU
CM2031	Organic and Bioorganic Chemistry	C	3
CM2041	Physical and Biophysical Chemistry 1	С	3
CM2062	Chemistry & Biological Chemistry Laboratory 2	С	3
PS0002	Introduction to Data Science and Artificial Intelligence	FC	3
CC0007	Science & Technology for Humanity	СС	3
MH1403	Algorithms & Computing (CHDA-	BDE	3
	Core) BDE 4	BDE	3
			21
Year 3 Sem	ester 2		
Course		Туре	AU
CM3xxx <sup>&amp;</sup>	CHEM-Core	C	3
CM3xxx <sup>&amp;</sup>	CHEM-Core	С	3
CM3061	Chemistry & Biological Chemistry Laboratory 3	С	3
HW0218	Communication Across the Sciences	FC	2
MH3500	Statistics (CHDA-Elective 1)	BDE	4
	CHDA-Elective 2	BDE	3
	BDE 5	BDE	2
			20
Year 4 Sem	ester 2		
Course		Туре	AU
CM4043+^	Molecular Modelling: Principles and Applications	MPE	3
	CHEM MPE2	BDE	3
	CHEM MPE 3	MPE	3
	CHEM MPE 4	MPE	3
	CHDA-Core	BDE	3
	BDE 6	BDE	3
			18

This study plan is meant as a guide.

^Counted towards 2nd major in Data Analytic requirements

'+Counted towards CHEM MPE

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

<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 Data Analytics (CHDA)

AY2023 - 2024 Intake onwards

with Professional Internship and FYP

			N	umber of Acad	demic Units (Al	I)	
_	Year of	Year of Major Requirement		Interdis	Interdisciplinary		
Programme	Study	Core (C)	Major PE (MPE)	Common Core (CC)	Foundational Core (FC)	Broadening and Deepening Electives (BDE)	ing Total
	1	17/18*		9		7	33/34*
Chemistry and	2	21		8	3	3	35
Biological	3	18	3		2	19	42
Chemistry	4		19		10	3	32
	Total	56/57*	22	17	15	32	142/143*
Sc in Chemistr	y and Biol	ogical Chemis	try with 2nd N	Najor in Data	Analytics (CHI	DA)	
ategory		0				, AU	Total AU
nterdisciplinary Collaborative Core (ICC)	Common Core (University-level)CC0001 Inquiry and Communication in the Interdisciplinary WorldCC0002 Navigating the Digital WorldCC0003 Ethics & Civics in a Multi-Cultural WorldCC0005 Healthy Living & WellbeingCC0006 Sustainability: Society, Economy & EnvironmentCC0007 Science & Technology for HumanityML0004 Career and Entrepreneurial Development for the FutureWorldFoundational Core (College-level)HW0218 Communication Across the SciencesPS0002 Introduction to Data Science and Artificial Intelligence				2 2 3 3 3 2 2 2 2 3 10	17	
	<b>CHEM Core</b> CM1001 CM1002	e Foundations c Foundations c	-			4	
	MH1082 CM1804^ PH1011 CM2011 CM2021	Calculus for th Mathematics Physics <u>or</u> PH1 Analytical and	e Sciences	-		4 2 3/4* 3 3	
Major Requirement	CM2061 CM2031 CM2041 CM2062 PS0001^	Organic and B Physical and B Chemistry & B	iological Chemi ioorganic Chem iophysical Chen iological Chemi o Computationa	istry nistry 1 stry Laboratory		3 3 3 3 3 3	56/57*
	CM3011 <sup>&amp;</sup> CM3041 <sup>&amp;</sup> CM3062 CM3031 <sup>&amp;</sup> CM3021 <sup>&amp;</sup> CM3061	Chemical Spec Physical and B Chemistry & B Organic React Organometall	troscopy and A iophysical Chen iological Chemi ion Mechanism	pplications nistry 2 stry Laboratory s and Synthesis	5	3 3 3 3 3 3 3	
	CHEM Maj	or Prescribed E	lectives (MPE)				
	CM4080	Honours Proje				10	22
	4 x MPEs					12	22

	6) Data Mining: MH4510 Statistical Learning & Data Mining (4AU) / IE4483 Artificial Intelligence & Data Mining (3AU) / SC4020 Data	3 - 4	
	Analytics and Mining (3AU) 7) Data Visualisation/Management: BC2406 Analytics I: Visual and Predictive Techniques (4AU) / SC4023 Big Data Management (3AU) / SC4024 Data Visualization (3AU)	3 - 4	
	Data Analytics Electives (Read any 3)		
2nd Major in Data Analytics (BDEs)	BC2407 Analytics II: Advanced Predictive Techniques (4AU) BS3008 Computational Biology and Modeling (3AU) BS4017 High-Throughput Bioinformatics (3AU) CM4043+^ Molecular Modelling: Principles and Applications (3AU) CM4044+^ Artificial Intelligence in Chemistry (3AU) ES2001 Computational Earth Systems Science (4AU) MH3400 Algorithms for the Real World (4AU) MH3500 Statistics (4AU) MH3510 Regression Analysis (4AU) MH3511 Data Analysis with Computer (3AU) MH3701 Basic Optimization (4AU) MH4500 Time Series Analysis (4AU) MH4513 Survival Analysis (4AU) MH4513 Computational Economics (4AU) MH4511 Sampling and Survey (4AU) @ MH4512 Clinical Trials (4AU)	9 - 12	9 - 12
	MH4702 Probabilistic Methods in OR (4AU)		
	Students are responsible to plan for their 2nd major courses		
BDE		7	7

^Counted towards 2nd major in Data Analytic Compulsory Course

<sup>+</sup> Counted towards CHEM MPE

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

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

## B.Sci. (Chemistry and Biological Chemistry) with 2nd major in Data Analytics (CHDA)

Suggested Study Plan for AY2023-2024 intake with Professional Internship and FYP

with ridges							
Year 1 Sen	Year 1 Semester 1						
Course		Туре	AU				
CM1001	Foundations of Chemistry I	С	4				
MH1802	Calculus for the Sciences	С	4				
CC0001	Inquiry and Communication in the Interdisciplinary World	СС	2				
CC0002	Navigating the Digital World	CC	2				
CC0005	Healthy Living & Well-being	СС	3				

HW0001	Introduction to Academic Communication <sup>#</sup>

Course		Туре	AU
CM1002	Foundations of Chemistry II	С	4
CM1804^	Mathematics for Chemistry	С	2
PH1011/	Physics <u>or</u>	С	3
PH1012*	Physics A (For students without 'A' Level Physics)	С	4
CC0003	Ethics & Civics in a Multi-Cultural World	CC	2
	BDE 1	BDE	3
	BDE 2	BDE	4

Year 1 Semester 2

<sup>#</sup> for students who have not cleared QET

#### /ear 2 Semester 1

Year 2 Sen	nester 1		
Course		Туре	AU
CM2011	Analytical and Bioanalytical Chemistry	С	3
CM2021	Inorganic and Bioinorganic Chemistry	С	3
CM2061	Chemistry & Biological Chemistry Laboratory 1	С	3
PS0001^	Introduction to Computational Thinking	С	3
CC0006	Sustainability: Society, Economy & Environment	СС	3
ML0004	Career and Entrepreneurial Development for the Future World	СС	2
			17

Course		Туре	AU
CM2031	Organic and Bioorganic Chemistry	С	3
CM2041	Physical and Biophysical Chemistry 1	С	3
CM2062	Chemistry & Biological Chemistry Laboratory 2	С	3
PS0002	Introduction to Data Science and Artificial Intelligence	FC	3
CC0007	Science & Technology for Humanity	CC	3
MH1403	Algorithms & Computing (CHDA- Core)	BDE	3
			18

Year 3 Semester 1				
Course		Туре		
CM3xxx <sup>&amp;</sup>	CHEM-Core	С		
CM3xxx <sup>&amp;</sup>	CHEM-Core	С		
CM3062	Chemistry & Biological Chemistry Laboratory 4	С		
BC2402	Designing & Developing Databases (CHDA-Core)	BDE		
BC2406	Analytics I: Visual and Predictive Techniques (CHDA-Core)	BDE		
MH2500	Probability and Introduction to Statistics (CHDA-Core)	BDE		

			Year 3 Sem	nester 2
	Туре	AU	Course	
	С	3	CM3xxx <sup>&amp;</sup>	CHEM-Cor
	С	3	CM3xxx <sup>&amp;</sup>	CHEM-Cor
gical Chemistry	С	3	CM3061	Chemistry Laboratory
oping Databases	BDE	4	HW0218	Communic
and Predictive -Core)	BDE	4	MH3500	Statistics (
roduction to ore)	BDE	4		CHDA-Elec CHEM MP
				0.121011011

21

15

ear 3 Semester 2										
ourse		Туре	AU							
M3xxx <sup>&amp;</sup>	CHEM-Core	С	3							
M3xxx <sup>&amp;</sup>	CHEM-Core	С	3							
M3061	Chemistry & Biological Chemistry Laboratory 3	С	3							
W0218	Communication Across the Sciences	FC	2							
IH3500	500 Statistics (CHDA-Elective 1)		4							
	CHDA-Elective 2	BDE	3							
	CHEM MPE 1	MPE	3							

Year 4 Semester 1				Year 4 Semester 2					
Course		Туре	AU	Course		Туре	AU		
CM4081	Professional Internship	FC	10	CM4080	Honours Project 1	MPE	10		
		Molecular Modelling: Principles ar CM4043+^	Molecular Modelling: Principles and	MPE	3				
				CIVI4043+^	Applications	IVIPE	3		
					CHEM MPE 3	MPE	3		
					CHEM MPE 4	MPE	3		
					CHDA-Core	BDE	3		
			10				22		
					Total (AU)		142/143*		

This study plan is meant as a guide.

^Counted towards 2nd major in Data Analytic requirements

'+Counted towards CHEM MPE

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

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

21

18/19\*