AY2025 - 2026 Intake onwards

Track 1 (Global Immersion in WUR)

FYP with Professional Attachment

				Numbe	r of Academic U	nits (AU)		
Programme	Year of	Major Re	equirement	Interdisc	iplinary Collaboi	rative Core	Broadening and	
rogramme	Study	Core (C)	Major PE (MPE)	Common Core (CC)	Professional Series (PS)	Care, Serve and Learn (CSL)	Deepening Electives (BDE)	Total
	1	18/19*		8			1	27/28*
Chemistry and	2	22		6	3	3	6	40
Biological	3	18	6 [3]		8		9	41 [3]
Chemistry	4		16				12	28
	Total	58/59*	22 [3]	14	11	3	28	136/137*
Sc in Chamistr	, and Biolo	aical Chamistr	y with 2nd Majo	r in Euturo Eo	od (EE)			
Category	y and biolo	gicai Cileiiiisti	y with zhu Majo	i iii rutule roi	Ju (FF)		AU	Total A
	Common	Core (Universi	ty-level)					
	CC0001 In	quiry & Comm	unication in an I	nterdisciplinar	y World		2	
	CC0003 Et	hics & Civics ir	a Multi-Cultural	World			2	
	ML0004 C	areer Design 8	Workplace Read	diness in the V	U.C.A World		2	14
	CC0015 H	ealth & Wellbe	ing				2	14
	CC0006 St	ustainability: So	ciety, Economy	& Environmen	t		3	
nterdisciplinary	CC0007 Sc	cience & Techn	ology for Human	ity			3	
Collaborative								
Core (ICC)	Profession	nal Series (Coll	ege-level)					
	HW0218 0	Communication	n Across the Scie	nces			2	
	PS0002 In	troduction to [	3	11				
	CM4082 P	rofessional At	5					
	MLXXXX P	rofession Prep	aration				1	
	XXXXXX Ca	are. Serve. Lea	rn (University-le	vel)			3	3
		, ,	(0)				ļ	
	CHEM Cor							
		Foundations (	-				4	
		Foundations (	•				4	
	CB1102		to Chemistry, Che	emical and Bio	medical Enginee	ring	1	
		Calculus for t					4	
		Mathematics	•				2	
	PH1011		1012* Physics A				3/4*	
		-	Bioinorganic Ch	emistry			3	
		Analytical Che	•		_		3	
		-	Biological Chemis		1		3	
	PS0001		to Computationa	-			3	58/59
Major		-	Bioorganic Chemi	•			3	30/33
Requirement		•	Biophysical Chem	•	_		3	
nequirement			Biological Chemis				3	
	CB2002		o Chemical and	•	ty		1	
		•	ctroscopy and Ap				3	
			Biophysical Chem				3	
	l l		Biological Chemis				3	
			tion Mechanisms	and Synthesis			3	
	CM3021 <sup>&amp;</sup>	Organometal	ic Chemistry				3	
	CM3061	Chemistry & I	Biological Chemis	stry Laboratory	3		3	
	CHEW MA	ior Prescribed	Electives (MPE)					
		Honours Proj					10	
	4 × MADEC						124	22

	Food Future Compulsory Courses		
	CH5210 Food Process Technologies and New Production Systems	3	
	CH5211 Data Analytics in Food Systems	3	
2nd Major in	CH5220 Food Standard - Food Safety & Risk Assessment	3	
Future Food	CH5222 Future Foods - Introduction to Advanced Meat	3	
(FF)	CM5101 Food Chemistry & Nutrition	3	27^
	Electives (Choose 5)		
	4 WUR Electives	12	
	1 NTU Electives^	-	
BDE	Any 1 BDE	1	1

136/137\*

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

4 x MPEs

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

<sup>^</sup>CM4013 can be double counted towards 2nd Major in FF requirement (3AU)

<sup>[]</sup> AU of courses that could be used to fulfil Core/MPE requirement and 2nd Major requirement concurrently

•	obal Immersion in WUR) ofessional Attachment						
ear 1 Sem	ester 1			Year 1 Sen	nester 2		
Course		Туре	AU	Course	- 1 621	Туре	AU
CM1001 MH1802	Foundations of Chemistry I	C C	4	CM1002	Foundations of Chemistry II	C	4
	Calculus for the Sciences Introduction to Chemistry, Chemical		4	CM1804	Mathematics for Chemistry	С	2
CB1102	and Biomedical Engineering	С	1	PH1011/	Physics <u>or</u>	С	3
CC0001	Inquiry & Communication in an	CC	2	PH1012*	Physics A (For students without 'A'	С	4
CC0015	Health & Wellbeing	СС	2	CC0003	Ethics & Civics in a Multi-Cultural World	CC	2
	BDE 1	BDE	1	ML0004	Career Design & Workplace Readiness in the V.U.C.A World	CC	2
HW0001	Introduction to Academic Communicat	ion #					
			14				13/14
for studer	nts who have not cleared QET		14				15/1.
ear 2 Sem	ester 1			Year 2 Sen	nester 2		
Course	Applytical and Diographytical	Type	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	CB2002	Introduction to Chemical and Biological Safety	С	1
CC0006	Sustainability: Society, Economy & Environment	СС	3	PS0002	Introduction to Data Science and Artificial Intelligence	PS	3
XXXXX	Care, Serve, Learn	CSL	3	CC0007	Science & Technology for Humanity	CC	3
CM5101	Food Chemistry & Nutrition	BDE	3	CH5220	Food Standard - Food Safety and Risk Assessment	BDE	3
			21				19
Year 3 Sem	ester 1			Year 3 Sen	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> CM3062	CHEM-Core Chemistry & Biological Chemistry	C C	3 3	CM3xxx <sup>&amp;</sup> CM3061	CHEM-Core Chemistry & Biological Chemistry	c c	3
CM4013^	Laboratory 4 Current Topics in Analytical	MPE	3	CH5211	Laboratory 3  Data Analytics in Food Systems	BDE	3
CIVI-013	Chemistry CHEM MPE 2	MPE	3	CH5222	Future Foods - Introduction to	BDE	3
					Advanced Meet Alternative		
CH5210	Profession Preparation Food Process Technologies and New Production System	PS BDE	3	HW0218	Communication Across the Sciences	PS	2
	Production System			Year 3 Spe	<del></del>	DC	-
				CM4082	Professional Attachment	PS	5
			19				22
ear 4 Sem	ester 1	_		Year 4 Sen	nester 2	_	
Course	FF WILD Flooting 1	Type	AU	CN4080	Hangurs Project 1	Type	AU
	FF WUR Elective 1 FF WUR Elective 2	BDE BDE	3	CM4080	Honours Project 1 CHEM MPE 3	MPE MPE	10 3
	FF WUR Elective 3	BDE	3		CHEM MPE 4	MPE	3
	FF WUR Elective 4	BDE	3			., =	J
			12				16
					Total (AU)		136/1

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 ^CM4013 can be double counted towards 2nd Major in FF requirement (3AU)

AY2025 - 2026 Intake onwards Track 1 (Global Immersion in WUR) with Professional Internship

		Number of Academic Units (AU)								
Programme	Year of Study	Major Re	quirement	Interdiscip	linary Collabo	Broadening and				
	,	Core (C)	Major PE (MPE)	Common Core (CC)	Professional Series (PS)	Care, Serve and Learn (CSL)	Deepening Electives (BDE)	Total		
	1	18/19*		8			6	32/33*		
Chemistry and	2	22		6	5	3	6	42		
Biological	3	9	6 [3]		11		3	29 [3]		
Chemistry	4	9	6				18	33		
	Total	58/50*	12 [2]	14	16	2	33	126/127* [2]		

	Total	58/59*	12 [3]	14	16	3	33	136/137* [3]
BSc in Chemistry	and Biologica	al Chemistry witl	n 2nd Major in	Future Food (FI	F)			T-+-1 A11
Category	Common Co	re (University-lev	(امر				AU	Total AU
		iry & Communica	•	disciplinary Wo	rld		2	
	•	s & Civics in a M			110		2	
		er Design & Wor			A World		2	
		th & Wellbeing					2	14
	CC0006 Susta	ainability: Society	, Economy & Er	nvironment			3	
Interdisciplinary	CC0007 Scien	nce & Technology	for Humanity				3	
Collaborative								
Core (ICC)	Professional	Series (College-I	evel)					
		nmunication Acro					2	
		duction to Data S		ificial Intelligend	ce		3 10	16
	CM4081 Professional Internship							
	MLXXXX Profession Preparation							
	XXXXXX Care	, Serve, Learn (U	niversity-level)				3	3
	700000 care	, serve, Learn (o	inversity-ievery					
	CHEM Core							
	CM1001	Foundations of	f Chemistry I				4	
	CM1002	Foundations of	f Chemistry II				4	
ı	CB1102 Introduction to Chemistry, Chemical and Biomedical Engineering							
	MH1802 Calculus for the Sciences							
	CM1804 Mathematics for Chemistry PH1011 Physics or PH1012* Physics A						2	
	PH1011	· —	•				3/4*	
	CM2021	_	Bioinorganic Ch	emistry			3	
	CM2011	Analytical Che	-	-t	4		3	
	CM2061		_	stry Laboratory	1		3	
Major	PS0001 CM2031		Computationa	_			3	58/59*
Major Requirement	CM2031	-	oorganic Chemi iophysical Chem	-			3	
Requirement	CM2041 CM2062	-		stry Laboratory	2		3	
	CB2002	=	=	Biological Safet			1	
	CM3011 <sup>&amp;</sup>		troscopy and Ap	•	7		3	
	CM3041 <sup>&amp;</sup>	-	iophysical Chem				3	
	CM3062	-		stry Laboratory	4		3	
	CM3031 <sup>&amp;</sup>		on Mechanisms				3	
	CM3021 <sup>&amp;</sup>	Organometalli	c Chemistry				3	
	CM3061	Chemistry & B	iological Chemis	stry Laboratory	3		3	
	CUEDA DA . '	B	·					
	4 x MPEs	Prescribed Elect	lives (IVIPE)				12^	12
	1 X 1411 E3							12
	Food Future	Compulsory Cou	irses					
	CH5210	Food Process 1	Technologies an	d New Producti	ion Systems		3	
	CH5211	•	in Food System				3	
	CH5220		,	& Risk Assessme			3	
2nd Major in	CH5222			Advanced Mea	at		3	
Future Food (FF)	CM5101	Food Chemistr	y & Nutrition				3	27^
	Electives (Ch	oose 5)						
	4 WUR Electi	•					12	
	1 NTU Electiv						-	
	1						1	1
BDE	Any 3 BDE						6	6
_								
Total								136/137*

<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.

<sup>^</sup>CM4013 can be double counted towards 2nd Major in FF requirement (3AU)

<sup>[]</sup> AU of courses that could be used to fulfil Core/MPE requirement and 2nd Major requirement concurrently

					_	
Year 1 Sen Course	nester 1	Type	AU	Year 1 Sem Course	nester 2	Type
CM1001	Foundations of Chemistry I	<b>Type</b> C	4	CM1002	Foundations of Chemistry II	<b>Type</b> C
MH1802	Calculus for the Sciences	С	4	CM1804	Mathematics for Chemistry	С
B1102	Introduction to Chemistry, Chemical	С	1	PH1011/	Physics <u>or</u>	С
	and Biomedical Engineering Inquiry & Communication in an				Physics A (For students without 'A'	
C0001	Interdisciplinary World	CC	2	PH1012*	Level Physics)	С
CC0015	Health & Wellbeing	СС	2	CC0003	Ethics & Civics in a Multi-Cultural World	CC
	BDE 1	BDE	3	ML0004	Career Design & Workplace Readiness in the V.U.C.A World	CC
		. #			BDE 2	BDE
IW0001	Introduction to Academic Communicat	ion"				
for studei	nts who have not cleared QET		16			
ear 2 Sen	nester 1			Year 2 Sen	nester 2	
Course		Туре	AU	Course		Type
CM2011	Analytical and Bioanalytical Chemistry	С	3	CM2031	Organic and Bioorganic Chemistry	С
CM2021	Inorganic and Bioinorganic Chemistry	С	3	CM2041	Physical and Biophysical Chemistry 1	С
CM2061	Chemistry & Biological Chemistry Laboratory 1	С	3	CM2062	Chemistry & Biological Chemistry Laboratory 2	С
PS0001	Introduction to Computational Thinking	С	3	CB2002	Introduction to Chemical and Biological Safety	С
CC0006	Sustainability: Society, Economy &	СС	3	PS0002	Introduction to Data Science and	PS
XXXXX	Environment Care, Serve, Learn	CSL	3	HW0218	Artificial Intelligence Communication Across the Sciences	PS
CM5101	Food Chemistry & Nutrition	BDE	3	CC0007	Science & Technology for Humanity	СС
				CH5220	Food Standard - Food Safety and Risk Assessment	BDE
			21			
Year 3 Sem	nester 1			Year 3 Sen	nester 2	
Course		Туре	AU	Course		Туре
CM3xxx <sup>&amp;</sup>	CHEM-Core	С	3	CM4081	Professional Internship	PS
CM3xxx <sup>&amp;</sup>	CHEM-Core	С	3			
CM3062	Chemistry & Biological Chemistry	С	3			
	Laboratory 4 Current Topics in Analytical					
CM4013^	Chemistry	MPE	3			
	CHEM MPE 2	MPE	3			
	Profession Preparation	PS	1			
MLxxxx	Food Process Technologies and New					
	Food Process Technologies and New Production System	BDE	3			
MLxxxx CH5210		BDE	19			
CH5210	Production System	BDE		Voor 4 Som	postor 2	
CH5210 Year 4 Sem	Production System		19	Year 4 Sen	nester 2	Type
ear 4 Sem	Production System	Type BDE	19 AU	Course	nester 2  CHEM-Core	<b>Type</b>
H5210 ear 4 Sen	Production System nester 1	Туре	19			
H5210 ear 4 Sen	Production System  nester 1  FF WUR Elective 1  FF WUR Elective 2	Type BDE BDE	19 AU 3 3	Course CM3xxx <sup>&amp;</sup> CM3xxx <sup>&amp;</sup>	CHEM-Core	C C
ear 4 Sem	Production System  mester 1  FF WUR Elective 1  FF WUR Elective 2  FF WUR Elective 3	Type BDE BDE BDE	19 AU 3 3 3	Course CM3xxx <sup>&amp;</sup>	CHEM-Core CHEM-Core Chemistry & Biological Chemistry Laboratory 3	c c
CH5210 Year 4 Sem	Production System  nester 1  FF WUR Elective 1  FF WUR Elective 2	Type BDE BDE	19 AU 3 3	Course CM3xxx <sup>&amp;</sup> CM3xxx <sup>&amp;</sup>	CHEM-Core CHEM-Core Chemistry & Biological Chemistry Laboratory 3 CHEM MPE 3	C C C MPE
CH5210 Year 4 Sem	Production System  mester 1  FF WUR Elective 1  FF WUR Elective 2  FF WUR Elective 3	Type BDE BDE BDE	19 AU 3 3 3	Course CM3xxx <sup>&amp;</sup> CM3xxx <sup>&amp;</sup>	CHEM-Core CHEM-Core Chemistry & Biological Chemistry Laboratory 3	c c
	Production System  mester 1  FF WUR Elective 1  FF WUR Elective 2  FF WUR Elective 3	Type BDE BDE BDE	19 AU 3 3 3	Course CM3xxx <sup>&amp;</sup> CM3xxx <sup>&amp;</sup> CM3061	CHEM-Core CHEM-Core Chemistry & Biological Chemistry Laboratory 3 CHEM MPE 3 CHEM MPE 4 Data Analytics in Food Systems Future Foods - Introduction to	C C C MPE MPE
CH5210 Year 4 Sem	Production System  mester 1  FF WUR Elective 1  FF WUR Elective 2  FF WUR Elective 3	Type BDE BDE BDE	19 AU 3 3 3 3	Course  CM3xxx <sup>&amp;</sup> CM3xxx <sup>&amp;</sup> CM3061  CH5211	CHEM-Core CHEM-Core Chemistry & Biological Chemistry Laboratory 3 CHEM MPE 3 CHEM MPE 4 Data Analytics in Food Systems	C C C MPE MPE BDE
CH5210 Year 4 Sem	Production System  mester 1  FF WUR Elective 1  FF WUR Elective 2  FF WUR Elective 3	Type BDE BDE BDE	19 AU 3 3 3	Course  CM3xxx <sup>&amp;</sup> CM3xxx <sup>&amp;</sup> CM3061  CH5211	CHEM-Core CHEM-Core Chemistry & Biological Chemistry Laboratory 3 CHEM MPE 3 CHEM MPE 4 Data Analytics in Food Systems Future Foods - Introduction to	C C C MPE MPE BDE

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

 $<sup>^{\</sup>Lambda}$ CM4013 can be double counted towards 2nd Major in FF requirement (3AU)

AY2025 - 2026 Intake onwards

Track 2 (NTU Based)

				Numbe	r of Academic	Units (AU)			
Programme	Year of	Major Re	quirement		linary Collabo		Broadening and		
Trogramme	Study	Core (C)	Major PE (MPE)	Common Core	Professional	Care, Serve and	Deepening	Tota	
				(CC)	Series (PS)	Learn (CSL)	Electives (BDE)	27/20	
Chamistry and	1	18/19*		8	2	3	1 6	27/28	
Chemistry and Biological	3	22 18	+	6	3 8	3	15	40	
Chemistry	4	10	22 [2]				6		
Chemistry	Total	58/59*	22 [3] 22 [3]	14	11	3	28	28 [3 136/137	
	Total	30/33	22 [3]	14	- 11		20	130/137	
Sc in Chemistry	and Biolog	gical Chemistr	with 2nd Major	r in Future Food	l (FF)				
ategory							AU	Total A	
	Common (	Core (Universit	y-level)						
	CC0001 In	quiry & Comm	unication in an Ir	nterdisciplinary	World		2		
	CC0003 Et	hics & Civics in	a Multi-Cultural	World			2		
	ML0004 C	areer Design &	Workplace Read	diness in the V.U	J.C.A World		2	14	
	CC0015 He	ealth & Wellbe	ing				2		
			ciety, Economy				3		
	CC0007 Sc	ience & Techn	ology for Human	ity			3		
Collaborative									
Core (ICC)		nal Series (Coll		_					
			Across the Scien				2		
			ata Science and	Artificial Intellig	gence		3	11	
		rofessional Att					5		
	IVILXXXX P	rofession Prep	1						
	XXXXXX Ca	are. Serve. Lea	n (University-lev	vel)			3	3	
	ı			- ,			-		
	CHEM Cor								
		Foundations of					4		
		Foundations of					4		
	CB1102		o Chemistry, Che	emicai and Bion	nedicai Engine	ering	1 4		
			Calculus for the Sciences Mathematics for Chemistry						
	CM1804		2 3/4*						
	PH1011 CM2021	Physics or PH: Inorganic and	3/4						
		-	3						
		Chemistry & E	3						
	PS0001	-	o Computationa		•		3		
		Organic and B		3	58/5				
Major		Physical and E	3	,					
Requirement	CM2062	-	Biological Chemis		2		3		
,	CB2002	-	o Chemical and				1		
			ctroscopy and Ap	o .	y		3		
			Biophysical Chem						
		•		•	4		3		
			Biological Chemis		4		3		
		-	ion Mechanisms	and Synthesis			3		
		Organometall					3		
	CM3061	Chemistry & E	Biological Chemis	stry Laboratory	3		3		
	CHEM Ma	jor Prescribed	Electives (MPE)						
	CM4080	Honours Proje	ect 1				10	22	
	4 x MPEs						12^		
	Food Futu	re Compulsory	Courses						
	CH5210		Technologies an	d New Producti	on Systems		3		
	CH5211	Data Analytics	in Food System	S	-		3		
Omed Nacional	CH5220	-	d - Food Safety 8		nt		3		
2nd Major in	CH5222		- Introduction to				3		
Future Food (FF)	CM5101	Food Chemist	ry & Nutrition				3	27′	
(''')	et	Ol \							
	Electives ( 4 NTU Elec	Choose 5)					12		
	IT IN LO EIEC								

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

Any 1 BDE

BDE

136/137\*

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

<sup>^</sup>CM4013 can be double counted towards 2nd Major in FF requirement (3AU)

 $<sup>\</sup>hbox{[] AU of courses that could be used to fulfil Core/MPE requirement and 2nd Major requirement concurrently}\\$ 

	mistry and Biological Chemistry with 2nd	d Major i	n Future Fo	od (CHFF)			
Suggested	Study Plan for AY2025-2026 intake						
Track 2 (N1	•						
YP with Pi	rofessional Attachment Option						
Year 1 Sem	nester 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	Calculus for the Sciences	С	4	CM1804	Mathematics for Chemistry	С	2
CB1102	Introduction to Chemistry, Chemical	С	1	PH1011/	Physics <u>or</u>	С	3
	and Biomedical Engineering			•	· <del>-</del>		
CC0001	Inquiry & Communication in an	CC	2	PH1012*	Physics A (For students without 'A'	С	4
CC0015	Health & Wellbeing	CC	2	CC0003	Ethics & Civics in a Multi-Cultural	CC	2
					World		
	BDE 1	BDE	1	ML0004	Career Design & Workplace Readiness in the V.U.C.A World	CC	2
HW0001	Introduction to Academic Communicati	on #					
			14				13/14*
for studen	nts who have not cleared QET		14				13/14
Year 2 Sem	actor 1			Year 2 Sen	nester 7		
rear 2 Seri Course	1	Туре	AU	Course	nestel E	Type	AU
COUISE	Analytical and Bioanalytical		•	course		Туре	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	CB2002	Introduction to Chemical and Biological Safety	С	1
CC0006	Sustainability: Society, Economy & Environment	CC	3	PS0002	Introduction to Data Science and Artificial Intelligence	PS	3
XXXXXX	Care, Serve, Learn	CSL	3	CC0007	Science & Technology for Humanity	СС	3
					Food Standard - Food Safety and Risk		
	FF NTU Elective 1	BDE	3	CH5220	Assessment	BDE	3
			21				19
Year 3 Sem	nester 1			Year 3 Sen	nester 2		
Course		Type	AU	Course		Type	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		3
CIVI3XXX	CHEWI-Core	C	3	CIVISOOT	Laboratory 3	_	3
8						С	
CM3xxx <sup>&amp;</sup>	CHEM-Core	С	3	CH5211	Data Analytics in Food Systems	C BDE	3
	CHEM-Core Chemistry & Biological Chemistry				Data Analytics in Food Systems Future Foods - Introduction to	BDE	
CM3xxx CM3062		c c	3	CH5211 CH5222			3
	Chemistry & Biological Chemistry				Future Foods - Introduction to	BDE	
CM3062	Chemistry & Biological Chemistry Laboratory 4	С	3	CH5222	Future Foods - Introduction to Advanced Meet Alternative	BDE BDE	3
CM3062 MLxxxx CM5101	Chemistry & Biological Chemistry Laboratory 4 Profession Preparation	C PS BDE	3 1 3	CH5222	Future Foods - Introduction to Advanced Meet Alternative Communication Across the Sciences	BDE BDE PS	3
CM3062 MLxxxx	Chemistry & Biological Chemistry Laboratory 4 Profession Preparation Food Chemistry & Nutrition	C PS	3	CH5222	Future Foods - Introduction to Advanced Meet Alternative Communication Across the Sciences	BDE BDE PS	3
CM3062 MLxxxx CM5101	Chemistry & Biological Chemistry Laboratory 4 Profession Preparation Food Chemistry & Nutrition Food Process Technologies and New	C PS BDE	3 1 3	CH5222	Future Foods - Introduction to Advanced Meet Alternative Communication Across the Sciences FF NTU Elective 2	BDE BDE PS	3
CM3062 MLxxxx CM5101	Chemistry & Biological Chemistry Laboratory 4 Profession Preparation Food Chemistry & Nutrition Food Process Technologies and New	C PS BDE	3 1 3	CH5222 HW0218	Future Foods - Introduction to Advanced Meet Alternative Communication Across the Sciences FF NTU Elective 2	BDE BDE PS	3
CM3062 MLxxxx CM5101	Chemistry & Biological Chemistry Laboratory 4 Profession Preparation Food Chemistry & Nutrition Food Process Technologies and New	C PS BDE	3 1 3	CH5222 HW0218 Year 3 Spe	Future Foods - Introduction to Advanced Meet Alternative Communication Across the Sciences FF NTU Elective 2	BDE BDE PS BDE	3 2 3
CM3062 MLxxxx CM5101	Chemistry & Biological Chemistry Laboratory 4 Profession Preparation Food Chemistry & Nutrition Food Process Technologies and New Production System	C PS BDE	3 1 3 3 3	CH5222 HW0218 Year 3 Spe	Future Foods - Introduction to Advanced Meet Alternative Communication Across the Sciences FF NTU Elective 2  cial Sem Professional Attachment	BDE BDE PS BDE	3 2 3
CM3062 MLxxxx CM5101 CH5210 Year 4 Sem	Chemistry & Biological Chemistry Laboratory 4 Profession Preparation Food Chemistry & Nutrition Food Process Technologies and New Production System	C PS BDE	3 1 3 3 3	CH5222 HW0218 Year 3 Spe CM4082	Future Foods - Introduction to Advanced Meet Alternative Communication Across the Sciences FF NTU Elective 2  cial Sem Professional Attachment	BDE BDE PS BDE	3 2 3
CM3062 MLxxxx CM5101 CH5210 Year 4 Sem	Chemistry & Biological Chemistry Laboratory 4 Profession Preparation Food Chemistry & Nutrition Food Process Technologies and New Production System	C PS BDE BDE	3 1 3 3	Year 3 Spe CM4082 Year 4 Sen Course	Future Foods - Introduction to Advanced Meet Alternative Communication Across the Sciences FF NTU Elective 2  cial Sem Professional Attachment	BDE BDE PS BDE PS	3 2 3 5 22
CM3062 MLXXXX CM5101 CH5210  Year 4 Sem Course	Chemistry & Biological Chemistry Laboratory 4 Profession Preparation Food Chemistry & Nutrition Food Process Technologies and New Production System	C PS BDE BDE	3 1 3 3 3	CH5222 HW0218  Year 3 Spe CM4082  Year 4 Sen	Future Foods - Introduction to Advanced Meet Alternative Communication Across the Sciences FF NTU Elective 2  cial Sem Professional Attachment	BDE BDE PS BDE	3 2 3 5
CM3062 MLxxxx CM5101 CH5210 Year 4 Sem	Chemistry & Biological Chemistry Laboratory 4 Profession Preparation Food Chemistry & Nutrition Food Process Technologies and New Production System  mester 1  Current Topics in Analytical	C PS BDE BDE	3 1 3 3	Year 3 Spe CM4082 Year 4 Sen Course	Future Foods - Introduction to Advanced Meet Alternative Communication Across the Sciences FF NTU Elective 2  cial Sem Professional Attachment	BDE BDE PS BDE PS	3 2 3 5 22
CM3062 MLxxxx CM5101 CH5210 Year 4 Sem	Chemistry & Biological Chemistry Laboratory 4 Profession Preparation Food Chemistry & Nutrition Food Process Technologies and New Production System  mester 1  Current Topics in Analytical Chemistry	C PS BDE BDE Type	3 1 3 3 19 AU	Year 3 Spe CM4082 Year 4 Sen Course	Future Foods - Introduction to Advanced Meet Alternative Communication Across the Sciences FF NTU Elective 2  cial Sem Professional Attachment	BDE BDE PS BDE PS	3 2 3 5 22 AU
CM3062 MLxxxx CM5101 CH5210  Year 4 Sem Course	Chemistry & Biological Chemistry Laboratory 4 Profession Preparation Food Chemistry & Nutrition Food Process Technologies and New Production System  mester 1  Current Topics in Analytical Chemistry CHEM MPE 2	C PS BDE BDE  Type MPE MPE	3 1 3 3 3 19 AU 3 3	Year 3 Spe CM4082 Year 4 Sen Course	Future Foods - Introduction to Advanced Meet Alternative Communication Across the Sciences FF NTU Elective 2  cial Sem Professional Attachment	BDE BDE PS BDE PS	3 2 3 5 22 AU
CM3062 MLxxxx CM5101 CH5210 Year 4 Sem	Chemistry & Biological Chemistry Laboratory 4 Profession Preparation Food Chemistry & Nutrition Food Process Technologies and New Production System  Tester 1  Current Topics in Analytical Chemistry CHEM MPE 2 CHEM MPE 3	C PS BDE BDE  Type MPE MPE MPE	3 1 3 3 3 4 19 AU 3 3 3	Year 3 Spe CM4082 Year 4 Sen Course	Future Foods - Introduction to Advanced Meet Alternative Communication Across the Sciences FF NTU Elective 2  cial Sem Professional Attachment	BDE BDE PS BDE PS	3 2 3 5 22 AU
CM3062 MLxxxx CM5101 CH5210  Year 4 Sem Course	Chemistry & Biological Chemistry Laboratory 4 Profession Preparation Food Chemistry & Nutrition Food Process Technologies and New Production System  Tester 1  Current Topics in Analytical Chemistry CHEM MPE 2 CHEM MPE 3 CHEM MPE 4	C PS BDE BDE  Type MPE MPE MPE MPE	3 1 3 3 3 19 AU 3 3 3 3	Year 3 Spe CM4082 Year 4 Sen Course	Future Foods - Introduction to Advanced Meet Alternative Communication Across the Sciences FF NTU Elective 2  cial Sem Professional Attachment	BDE BDE PS BDE PS	3 2 3 5 22 AU
CM3062 MLxxxx CM5101 CH5210  Year 4 Sem	Chemistry & Biological Chemistry Laboratory 4 Profession Preparation Food Chemistry & Nutrition Food Process Technologies and New Production System  mester 1  Current Topics in Analytical Chemistry CHEM MPE 2 CHEM MPE 3 CHEM MPE 4 FF NTU Elective 3	C PS BDE BDE  Type MPE MPE MPE MPE BDE	3 1 3 3 3 3 3 3 3	Year 3 Spe CM4082 Year 4 Sen Course	Future Foods - Introduction to Advanced Meet Alternative Communication Across the Sciences FF NTU Elective 2  cial Sem Professional Attachment	BDE BDE PS BDE PS	3 2 3 5 22
CM3062 MLxxxx CM5101 CH5210	Chemistry & Biological Chemistry Laboratory 4 Profession Preparation Food Chemistry & Nutrition Food Process Technologies and New Production System  mester 1  Current Topics in Analytical Chemistry CHEM MPE 2 CHEM MPE 3 CHEM MPE 4 FF NTU Elective 3	C PS BDE BDE  Type MPE MPE MPE MPE BDE	3 1 3 3 3 3 3 3 3 3	Year 3 Spe CM4082 Year 4 Sen Course	Future Foods - Introduction to Advanced Meet Alternative Communication Across the Sciences FF NTU Elective 2  cial Sem Professional Attachment	BDE BDE PS BDE PS	3 2 3 5 22 AU

This study plan is meant as a guide.

<sup>\*</sup>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 ^CM4013 can be double counted towards 2nd Major in FF requirement (3AU)

AY2025 - 2026 Intake onwards

Track 2 (NTU Based)

with Professional Internship

					of Academic L		1			
Programme	Year of Study	Major Re	quirement		linary Collabo		Broadening and	Total		
		Core (C)	Major PE (MPE)	Common Core (CC)	Professional Series (PS)	Care, Serve and Learn (CSL)	Deepening Electives (BDE)	Total		
	1	18/19*		8	Series (1.5)	200111 (002)	6	32/34*		
Chemistry and	2	22		6	5	3	6	42		
Biological	3	12			11		6	29		
Chemistry	4	6	12 [3]				15	33 [3]		
,	Total	58/59*	12 [3]	14	16	3	33	136/137*		
		,		l .			1			
Sc in Chemistry	and Biological	Chemistry wi	th 2nd Major in	Future Food (F	F)					
ategory		•	•	·			AU	Total A		
	Common Core	(University-le	evel)							
	CC0001 Inquir	y & Communic	ation in an Inter	disciplinary Wo	orld		2			
	CC0003 Ethics	& Civics in a N	1ulti-Cultural Wo	orld			2			
	ML0004 Caree	2	14							
	CC0015 Health	2	14							
	CC0006 Sustai	3								
nterdisciplinary	CC0007 Science	3								
Collaborative										
Core (ICC)	Professional S									
	HW0218 Com		2							
	PS0002 Introd	uction to Data	Science and Arti	ificial Intelligen	ce		3	16		
	CM4081 Profe		10	10						
	MLXXXX Profe	1								
	XXXXXX Care,	Serve, Learn (	University-level				3	3		
	CHEM Core									
	CM1001	•								
	CM1002		of Chemistry II				4			
	CB1102		o Chemistry, Ch	emical and Bior	medical Engine	ering	1			
	MH1802	Calculus for t		4						
	CM1804	Mathematics	2							
	PH1011	Physics or PH	3/4*							
	CM2021	Inorganic and	3							
	CM2011	Analytical Che	3							
	CM2061	Chemistry & I	3							
	PS0001		o Computationa				3	58/59		
Major	CM2031	-	Sioorganic Chem	•			3			
Requirement	CM2041	•	Biophysical Chen	•	2		3			
	CM2062	-	Biological Chemi				3			
	CB2002		o Chemical and	•	ЗУ		1			
	CM3011 <sup>&amp;</sup>		ctroscopy and A				3			
	CM3041 <sup>&amp;</sup>	•	Biophysical Chen	•	4		3			
	CM3062	•	Biological Chemi		4		3			
	CM3031 <sup>&amp;</sup>	-	ion Mechanisms	s and synthesis			3			
	CM3021 <sup>&amp;</sup>	Organometal		ctr. Laborator.	2		3			
	CM3061	Chemistry &	Biological Chemi	Stry Laboratory	3		3			
	CHEM Major F	rossribad Ela	tives (MDE)							
	4 x MPEs	rescribed EIE	CIVES (IVIFE)				12^	12^		
	1 ∨ IAIL F3						12	12.		
	Food Future C	ompulsory Co	urses							
	CH5210		Technologies an	nd New Product	ion Systems		3			
	CH5210 CH5211		s in Food System				3			
	CH5211 CH5220	,	d - Food Safety 8		ent		3			
2nd Major in	CH5220 CH5222		- Introduction to				3			
uture Food (FF)			ry & Nutrition	, varicea ivie	u		3	27^		
1 00u (1 F)	C.1412101	, oou chemis	. , w Mutilition					-/		
	Electives (Cho	nse 5)								
	4 NTU Elective						12			
	1 NTU Elective						-			
-	1 0 E.CCCIVE	-					1			

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

136/137\*

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

<sup>^</sup>CM4013 can be double counted towards 2nd Major in FF requirement (3AU)

<sup>[]</sup> AU of courses that could be used to fulfil Core/MPE requirement and 2nd Major requirement concurrently

	mistry and Biological Chemistry with 2n	d Major i	n Future Fo	od (CHFF)			
	Study Plan for AY2025-2026 intake						
Track 2 (NT	TU Based) ssional Internship						
with Frojes	sional internsiiip						
Year 1 Sem	nester 1			Year 1 Sen	nester 2		
Course	5 1 1 50 1 1	Туре	AU	Course	5 1 11 60 11 11	Туре	AU
CM1001 MH1802	Foundations of Chemistry I Calculus for the Sciences	C C	4 4	CM1002 CM1804	Foundations of Chemistry II  Mathematics for Chemistry	C C	4 2
141111002	Introduction to Chemistry, Chemical	C	•	CIVILOUT	Wathernades for elicinistry	Č	-
CB1102	and Biomedical Engineering	С	1	PH1011/	Physics <u>or</u>	С	3
CC0001	Inquiry & Communication in an Interdisciplinary World	СС	2	PH1012*	Physics A (For students without 'A' Level Physics)	С	4
CC0015	Health & Wellbeing	CC	2	CC0003	Ethics & Civics in a Multi-Cultural World	CC	2
	BDE 1	BDE	3	ML0004	Career Design & Workplace Readiness in the V.U.C.A World	CC	2
					BDE 2	BDE	3
HW0001	Introduction to Academic Communicati	ion <sup>#</sup>					
			16				16/17*
# for studer	nts who have not cleared QET						•
Year 2 Sem	nester 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	CB2002	Introduction to Chemical and Biological Safety	С	1
CC0006	Sustainability: Society, Economy & Environment	СС	3	PS0002	Introduction to Data Science and Artificial Intelligence	PS	3
xxxxx	Care, Serve, Learn	CSL	3	HW0218	Communication Across the Sciences	PS	2
CM5101	Food Chemistry & Nutrition	BDE	3	CC0007	Science & Technology for Humanity	CC	3
				CH5220	Food Standard - Food Safety and Risk Assessment	BDE	3
			21				21
Year 3 Sem	nester 1			Year 3 Sen	nester 2		
Course		Туре	AU	Course		Туре	AU
CM3xxx <sup>&amp;</sup>	CHEM-Core	С	3	CM4081	Professional Internship	PS	10
CM3xxx <sup>&amp;</sup>	CHEM-Core	С	3				
CM3xxx <sup>&amp;</sup>	CHEM-Core	C	3				
CM3062	Chemistry & Biological Chemistry	С	3				
	Laboratory 4						
MLxxxx	Profession Preparation Food Process Technologies and New	PS	1				
CH5210	Production System	BDE	3				
	FF NTU Elective 1	BDE	3				
			19				10
				Year 4 Sen	nester 2		
Year 4 Sem	nester 1						AU
Year 4 Sem Course	nester 1	Туре	AU	Course		Type	
	CHEM-Core	<b>Type</b>	<b>AU</b> 3	CM3061	Chemistry & Biological Chemistry Laboratory 3	<b>Type</b> C	3
Course	CHEM-Core Current Topics in Analytical				Laboratory 3		
Course CM3xxx <sup>&amp;</sup>	CHEM-Core Current Topics in Analytical Chemistry	C MPE	3		Laboratory 3 CHEM MPE 3	C MPE	3
Course CM3xxx <sup>&amp;</sup>	CHEM-Core Current Topics in Analytical Chemistry CHEM MPE 2	C MPE MPE	3 3 3	CM3061	Laboratory 3 CHEM MPE 3 CHEM MPE 4	C MPE MPE	3 3 3
Course CM3xxx <sup>&amp;</sup>	CHEM-Core Current Topics in Analytical Chemistry CHEM MPE 2 FF NTU Elective 2	C MPE MPE BDE	3 3 3	CM3061	Laboratory 3 CHEM MPE 3	C MPE MPE BDE	3 3 3 3
Course CM3xxx <sup>&amp;</sup>	CHEM-Core Current Topics in Analytical Chemistry CHEM MPE 2 FF NTU Elective 2 FF NTU Elective 3	C MPE MPE	3 3 3	CM3061	Laboratory 3 CHEM MPE 3 CHEM MPE 4 Data Analytics in Food Systems	C MPE MPE	3 3 3
Course CM3xxx <sup>&amp;</sup>	CHEM-Core Current Topics in Analytical Chemistry CHEM MPE 2 FF NTU Elective 2	C MPE MPE BDE BDE	3 3 3 3 3	CM3061	Laboratory 3 CHEM MPE 3 CHEM MPE 4 Data Analytics in Food Systems Future Foods - Introduction to	C MPE MPE BDE	3 3 3 3 3
Course CM3xxx <sup>&amp;</sup>	CHEM-Core Current Topics in Analytical Chemistry CHEM MPE 2 FF NTU Elective 2 FF NTU Elective 3	C MPE MPE BDE BDE	3 3 3 3 3	CM3061	Laboratory 3 CHEM MPE 3 CHEM MPE 4 Data Analytics in Food Systems Future Foods - Introduction to	C MPE MPE BDE	3 3 3 3

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

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