

<b>BSc in Chemistry and Biological Chemistry (CHEM)</b>									
AY2019 and AY2020 Intake									
Programme	Year of Study	Number of Academic Units (AU)							
		Major Requirement		GER		Unrestricted Electives	Total		
		Core (C)	Major PE (MPE)	GER-Core	GER-PE				
Chemistry and Biological Chemistry	1	24		6	6	3	39		
	2	18		9	6	3	36		
	3	18		3	3	9	33		
	4		22			3	25		
	Total	60	22	18	15	18	133		
<b>BSc in Chemistry and Biological Chemistry (CHEM)</b>									
Category							AU	Total AU	
General Education Requirement (GER)	<b>GER-CORE</b>								
	HW0128	Scientific Communication 1					2	12	
	GC0001	Sustainability: Seeing through the haze					1		
	ML0003	Kickstart your Career Success					1		
	PS8001	Defence Science					3		
	HY001	Ethics & Moral Reasoning					1		
	PS0003	Plan your Career Path					1		
	HW0228	Effective Communication 2					2		
	ET0001	Enterprise & Innovation					1		
	<b>GER-PE</b>								
		GER-PE (BM)					3		15
		GER-PE (LA)					3		
	GER-PE (STS)					3			
	GER-PE (ANY)					6			
Major Requirement	<b>CHEM Core</b>								
	CM1021	Basic Inorganic Chemistry with Laboratory					4	66	
	CM1031	Basic Organic Chemistry with Laboratory					4		
	MH1802	Calculus for the Sciences					4		
	CM1041	Basic Physical Chemistry with Laboratory					4		
	CM1051	Basic Biological Chemistry					3		
	MH1804	Mathematics for Chemistry					2		
	PS0001	Introduction to Computational Thinking					3		
	PH1801	Foundation of Physics 1					3		
	CM2011	Analytical Chemistry					3		
	CM2021	Inorganic and Bioinorganic Chemistry					3		
	CM2061	Chemistry & Biological Chemistry Laboratory 1					3		
	CM2031	Organic and Bioorganic Chemistry					3		
	CM2041	Physical and Biophysical Chemistry 1					3		
	CM2062	Chemistry & Biological Chemistry Laboratory 2					3		
	PS0002	Introduction to Data Science and Artificial Intelligence					3		
	CM3011	Chemical Spectroscopy and Applications					3		
	CM3041	Physical and Biophysical Chemistry 2					3		
	CM3062	Chemistry & Biological Chemistry Laboratory 4					3		
	CM3021	Organometallic Chemistry					3		
	CM3031	Organic Reaction Mechanisms and Synthesis					3		
	CM3061	Chemistry & Biological Chemistry Laboratory 3					3		
	<b>CHEM Major Prescribed Electives (MPE)</b>								
	4 x MPEs					12	22		
	CM4080	Honours Project 1 OR				10			
	CM4081	Professional Internship							
Unrestricted Electives (UE)							18		
<b>Total</b>							<b>133</b>		

**B.Sci. (Chemistry and Biological Chemistry)**

Suggested Study Plan for AY2019 and AY2020 intake

**Year 1 Semester 1**

Course		Type	AU
CM1021	Basic Inorganic Chemistry with Laboratory	C	4
CM1031	Basic Organic Chemistry with Laboratory	C	4
MH1802	Calculus for the Sciences	C	4
PH1801	Foundation of Physics 1	C	3
PS0001	Introduction to Computational Thinking	GER-C	3
CM8002	Forensic Science (GER-PE STS)	GER-PE	3

HW0001 Introduction to Academic Communication\*

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\*for students who have not cleared QET

**Year 2 Semester 1**

Course		Type	AU
CM2011	Analytical Chemistry	C	3
CM2021	Inorganic and Bioinorganic Chemistry	C	3
CM2061	Chemistry & Biological Chemistry Laboratory 1	C	3
ML0003	Kickstart your Career Success	GER-C	1
PS8001	Defence Science	GER-C	3
	GER-PE (ANY)	GER-PE	3
	UE 2	UE	3

**19****Year 3 Semester 1**

Course		Type	AU
CM3011	Chemical Spectroscopy and Applications	C	3
CM3041	Physical and Biophysical Chemistry 2	C	3
CM3062	Chemistry & Biological Chemistry Laboratory 4	C	3
	GER-PE (ANY)	GER-PE	3
	UE 3	UE	3
	UE 4	UE	3

**18****Year 4 Semester 1**

Course		Type	AU
CM4XXX	CHEM MPE	MPE	3
CM4XXX	CHEM MPE	MPE	3
CM4XXX	CHEM MPE	MPE	3
CM4XXX	CHEM MPE	MPE	3
	UE 6	UE	3

**15****Year 1 Semester 2**

Course		Type	AU
CM1041	Basic Physical Chemistry with Laboratory	C	4
CM1051	Basic Biological Chemistry	C	3
MH1804	Mathematics for Chemistry	C	2
HW0128	Scientific Communication 1	GER-C	2
GC0001	Sustainability: Seeing through the haze	GER-C	1
	GER-PE (BM)	GER-PE	3
	UE 1	UE	3

**18****Year 2 Semester 2**

Course		Type	AU
CM2031	Organic and Bioorganic Chemistry	C	3
CM2041	Physical and Biophysical Chemistry 1	C	3
CM2062	Chemistry & Biological Chemistry Laboratory 2	C	3
PS0002	Introduction to Data Science and Artificial Intelligence	GER-C	3
HY001	Ethics & Moral Reasoning	GER-C	1
PS0003	Plan your Career Path	GER-C	1
	GER-PE (LA)	GER-PE	3

**17****Year 3 Semester 2**

Course		Type	AU
CM3021	Organometallic Chemistry	C	3
CM3031	Organic Reaction Mechanisms and Synthesis	C	3
CM3061	Chemistry & Biological Chemistry Laboratory 3	C	3
HW0228	Effective Communication 2	GER-C	2
ET0001	Enterprise & Innovation	GER-C	1
	UE 5	UE	3

**15****Year 4 Semester 2**

Course		Type	AU
CM4080	Honours Project 1 OR	MPE	10
CM4081	Professional Internship	MPE	10

**10****Total (AU)****133**