

**BSc in Chemistry and Biological Chemistry with 2nd Major in Food Science and Technology (CHFS)**  
 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	3	3	36
	2	18		9	6	14	47
	3	18		3	3	13	37
	4		22			6	28
	Total	60	22	18	12	36	148

**BSc in Chemistry and Biological Chemistry with 2nd Major in Food Science and Technology (FST)**

Category		AU	Total AU
General Education Requirement (GER)	<b>GER-CORE</b>		
	PS0001 Introduction to Computational Thinking	3	18
	HW0128 Scientific Communication 1	2	
	GC0001 Sustainability: Seeing through the haze	1	
	ML0003 Kickstart your Career Success	1	
	PS8001 Defence Science	3	
	HY0001 Ethics & Moral Reasoning	1	
	PS0002 Introduction to Data Science and Artificial Intelligence	3	
	PS0003 Plan your Career Path	1	
	HW0228 Effective Communication 2	2	
	ET0001 Enterprise & Innovation	1	
	<b>GER-PE</b>		
	GER-PE (BM)	3	12
	GER-PE (LA)	3	
	GER-PE (STS)	3	
GER-PE (ANY)	3		

Major Requirement	<b>CHEM Core</b>		
	CM1021 Basic Inorganic Chemistry with Laboratory	4	24
	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	
PH1801 Foundation of Physics 1	3		

Major Requirement	CM2011 Analytical Chemistry	3	36	
	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		
	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	10			
CM4081 Professional Internship				

2nd Major in Food Science and Technology (FST)	<b>Food Science and Technology Compulsory Courses</b>		
	1) CH9201 Food Chemistry	5	33
	2) CH9200 Food Microbiology	3	
	3) CH9203 Food Process Engineering	5	
	4) CH9202 Food Physics	3	
	5) CH9204 Quality Systems Operations	2	
	6) NTU-FST MPE x 5	15	

BDE	BDE x 1	3	3
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**Total**

**148**

**BSc in Chemistry and Biological Chemistry with 2nd Major in Food Science and Technology (CHFS)**  
**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
CH9201 Food Chemistry	UE	5
NTU-FST PE	UE	3
GER-PE (BM)	GER-PE	3

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**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
CH5203 Food Process Engineering	UE	5
NTU-FST PE	UE	3
GER-PE (ANY)	GER-PE	3

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**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
NTU-FST PE	UE	3
NTU-FST PE	UE	3

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**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
UE 1	UE	3

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**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
HY0001 Ethics & Moral Reasoning	GER-C	1
PS0003 Plan your Career Path	GER-C	1
GER-PE (LA)	GER-PE	3
CH9200/CH5200 Food Microbiology	UE	3
NTU_FST PE	UE	3

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**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
CH5202 Food Physics	UE	3
CH5204 Quality Systems Operations	UE	2
HW0228 Effective Communication 2	GER-C	2
ET0001 Enterprise & Innovation	GER-C	1

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**Year 4 Semester 2**

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

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**Total (AU)**

**148**