

B.Eng. (Chemical & Biomolecular Engineering)
Suggested Study Plan for AY2014-2015 intake ONWARDS
with Professional Internship (NEW)

Year 1 Semester 1			Year 1 Semester 2		
Course		AU	Course		AU
CH1102	Introduction to Chemical Engineering in New Era	1	CH1108	Thermodynamics	4
CH1104	Materials & Energy Balances	4	CH1117	Engineering Mathematics	4
CH1105	Materials Science	3	CH1802	Lab 2	1
CH1131	Biomolecular Engineering	4	CH2102	Organic Chemistry and Spectrophotometry	4
CH1801	Lab 1	1	HW0188	Engineering Communication I	2
GC0001	Introduction to Sustainability	1	ML0001	Absolute Basics for Career	1
HW0001	English Proficiency*			GER elective 2	3
MH1810	Math 1	3			
	GER elective 1	3			
		20			19
<i>*For students who have not passed or been exempted from the Qualifying English Test at the time of admission.</i>					
Year 2 Semester1			Year 2 Semester 2		
Course		AU	Course		AU
CH2103	Fluid Systems	4	CH2104	Heat & Mass Transfer in Chemical and Biological Systems	4
CH2106	Introduction to Multidisciplinary Engineering	2	CH2109	Decision Tools for Business & Engineering	3
CH2107	Computational Methods in Chemical Engineering	3	CH2140	Unit Operation	4
CH2801	Lab 3	2	CH2802	Lab 4	2
CH3103	Chemical Thermodynamics	3	CH3102	Chemical Reaction Engineering	4
HY0001	Ethics & Moral Reasoning	1		Free elective 2	3
	GER elective 3	3			
	Free elective 1	3			
		21			20
Year 3 Semester 1			Year 3 Semester 2		
Course		AU	Course		AU
CH0491	Engineers & Society	3	CH3820	Professional Internship	8
CH3101	Process Control and Dynamics	4	ML0002	Career Power Up	1
CH3141	Advanced Unit Operations	3			
CH3802	Lab 5	3			
CH4101	Chemical, Biological & Plant Safety	2			
ET0001	Entrepreneurship & Innovation	1			
HW0288	Engineering Communication II	2			
		18			9
Year 4 Semester 1			Year 4 Semester 2		
Course		AU	Course		AU
CH4801	Final Year Design Project	4	CH3104	Biochemical Engineering	3
	CBE elective 1	3	CH4801	Final Year Design Project	4
	CBE elective 2	3		CBE elective 3	3
	Free elective 3	3		Free elective 5	3
	Free elective 4	3			
		16			13
					Total (AU)
					136

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with Professional Internship (NEW)

Year 1 Semester 1

Course		AU
CH1102	Introduction to Chemical Engineering in New Era	1
CH1104	Mass & Energy Balances	4
CH1105	Materials Science	3
CH1131	Biomolecular Engineering	4
CH1801	Lab 1	1
GC0001	Introduction to Sustainability	1
HW001	English Proficiency*	
MH1810	Math 1	3
	GER elective 1	3
		20

Year 2 Semester 2

Course		AU
CH1108	Thermodynamics	4
CH1117	Engineering Mathematics	4
CH1802	Lab 2	1
CH2102	Organic Chemistry	4
HW0188	Engineering Communication I	2
ML0001	Absolute Basics for Career	1
	GER elective 2	3
	Free elective 1	3
		22

* For students who have not passed or been exempted from the Qualifying English Test at the time of admission.

Year 2 Semester1

Course		AU
CH2103	Fluid Systems	4
CH2106	Introduction to Multidisciplinary Engineering	2
CH2107	Computational Methods in Chemical Engineering	3
CH2801	Lab 2A	2
CH3103	Chemical Thermodynamics	3
HY0001	Ethics & Moral Reasoning	1
	GER elective 3	3
	Free elective 2	3
	CBE elective 1	3
		24

Year 2 Semester 2

Course		AU
CH2104	Heat & Mass Transfer	4
CH2109	Decision Tools for Business & Engineering	3
CH2140	Principles of Separation Processes	4
CH2802	Lab 2B	2
CH3102	Reaction Engineering	4
	Free elective 3	3
	Free elective 4	3
		23

Year 3 Semester 1

Course		AU
CH0491	Engineers & Society	3
CH3101	Process Control and Dynamics	4
CH3141	Advanced Unit Operations	3
CH3802	Lab 3	3
CH4101	Chemical, Biological & Plant Safety	2
CH4801	Final Year Design Project	4
ET0001	Entrepreneurship & Innovation	1
HW0288	Engineering Communication II	2
		22

Year 3 Semester 2

Course		AU
CH3104	Biochemical Engineering	3
CH4801	Final Year Design Project	4
ML0002	Career Power Up	1
	CBE elective 2	3
	CBE elective 3	3
	Free elective 5	3
		17

Year 4 Semester1

Course		AU
CH3820	Professional Internship	8
		8

Total (AU)

136