B.Eng. (Chemical & Biomolecular Engineering)
Suggested Study Plan for AY2015-2016 intake (ABP)
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

B.Eng. (Chemical & Biomolecular Engineering)

Suggested Study Plan for AY2015-2016 intake (Direct entry)

with Professional Internship (NEW)

Year 2 Semester 1

Course		AU
MH1810	Math 1	3
CH1102	Introduction to Chemical Engineering in New Era	1
CH1131	Biomolecular Engineering	4
CH2103	Fluid Systems	4
CH2106	Introduction to Multidisiplinary Engineering	2
CH2107	Computational Methods	3
CH2801	Lab 2A	2
GC0001	Introduction to Sustainability	1
HW0188	Engineering Communication I	2
		22

Year 2 Semester 2

Course		AU
CH1117	Engineering Mathematics	4
CH1108	Thermodynamics	4
CH2104	Heat & Mass Transfer	4
CH2140	Unit Operation	4
CH3102	Reaction Engineering	4
CH2802	Lab 2B	2
ML0001	Absolute Basics for Career	1
		23

Year 3 Semester 1

Course		AU
CH3101	Process Control and Dynamics	4
CH3103	Chemical Thermodynamics	3
CH3141	Advanced Unit Operations	3
CH3802	Lab 3	3
CH4101	Chemical, Biological & Plant Safety	2
CH0491	Engineers & Society (from yr3 S1)	3
HW0288	Engineering Communication II	2
HY0001	Ethics & Moral Reasoning	1
		21

Year 3 Semester 2

Course		AU
CH3104	Biochemical Engineering	3
CH2102	Organic Chemistry	4
CH2109	Decision Tools for Business & Engineering	3
CH4801	Final Year Design Project	4
	CBE elective 1	3
	GER elective (Any)	3
ET0001	Entrepreneurship & Innovation	1
		21

Year 4 Semester 1

Course		AU
CH3820	Professional Internship	8
ML0002	Career Power UP	1
		9

Year 4 Semester 2

Course		AU
CH4801	Final Year Design Project	4
	CBE elective 2	3
	Free elective	3
	CBE elective 3	3
		13

Total (AU) **109**

2nd Major Business (PI Option)

		Academic Units (AU)
University Requirement	**General Education Requirement Core (GER-Core)**	12
	English Communication I (2 AU)	
	English Communication II (2 AU)	
	Absolute Basics for Career (1 AU)	
	Career Power Up (1 AU)	
	Engineers & Society (3 AU)	
	Introduction to Sustainability; Multidisciplinary Approaches and Solutions (1 AU)	
	Entrepreneurship & Innovation (1 AU)	
	Ethics and Moral Reasoning (1 AU)	
	General Education Requirement Elective (GER-Elective)	
	GER-Elective in Science, Technology & Society (3 AU)	
	GER-Elective in Liberal Arts (3 AU)	
Major Requirement	**CBE Core**	91
	BIE Core	91/92*
	Core Elective	9
2nd Major in Business	**Business Foundation Courses**	27
	Track Courses	12
Total AU requirement		151/152*

B.Eng. (Chemical & Biomolecular Engineering)
Suggested Study Plan for AY2015-2016 intake (BM)

with Professional Internship (NEW)

Year 1 Semester 1

Course		AU
CH1102	Introduction to Chemical Engineering in New Era	1
CH1104	Mass & Energy Balance	4
CH1105	Materials Science	3
CH1131	Biomolecular Engineering	4
CH1801	Lab	1
MH1810	Math 1	3
HW001	English Proficiency*	
AD1101	Financial Accounting	4
AB1201	Financial Management	3
GC0001	Introduction to Sustainability	1
		24

Year 1 Semester 2

Course		AU
CH1117	Engineering Mathematics	4
CH2102	Organic Chemistry	4
CH1108	Thermodynamics	4
CH1802	Lab	1
HW0188	Engineering Communication I	2
AB1501	Marketing	3
BE1401	Business Operations and Processes	4
ML0001	Absolute Basics for Career	1
		23

* 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	3
CH3103	Chemical Thermodynamics	3
CH2801	Lab	2
AD2101	Management Accounting	4
HY0001	Ethics & Moral Reasoning	1
		19

Year 2 Semester 2

Course		AU
CH2104	Heat & Mass Transfer	4
CH2140	Unit Operation	4
CH3102	Chemical Reaction Engineering	4
CH2802	Lab	2
CH2109	Decision Tools for Business & Engineering	3
AB0901	Principles of Economics: A Singapore Perspective	3
AB1601	Organisational Behaviour and Design	3
		23

Year 3 Semester 1

Course		AU
CH3101	Process Control and Dynamics	4
CH3141	Advanced Unit Operations	3
CH3802	Lab	3
CH4101	Chemical, Biological & Plant Safety	2
CH0491	Engineers & Society	3
AB1301	Business Law	3
ET0001	Entrepreneurship & Innovation	1
HW0288	Engineering Communication II	2
		21

Year 3 Semester 2*

Course		AU
CH3820	Professional Internship	8
ML0002	Career Power UP	1
		9

Year 4 Semester 1

Course		AU
CH4801	Final Year Design Project	4
	CBE elective 1	3
	CBE elective 2	3
	Track Course 1	4
	Track Course 2	4
		18

Year 4 Semester 2

Course		AU
CH3104	Biochemical Engineering	3
CH4801	Final Year Design Project	4
	CBE elective 3	3
	Track Course 3	4
		14

Total (AU) **151**

2nd Major Business (PA Option)

		Academic Units (AU)
University Requirement	**General Education Requirement Core (GER-Core)**	12
	English Communication I (2 AU)	
	English Communication II (2 AU)	
	Absolute Basics for Career (1 AU)	
	Career Power Up (1 AU)	
	Engineers & Society (3 AU)	
	Introduction to Sustainability; Multidisciplinary Approaches and Solutions (1 AU)	
	Entrepreneurship & Innovation (1 AU)	
	Ethics and Moral Reasoning (1 AU)	
	General Education Requirement Elective (GER-Elective)	0
	GER-Elective in Science, Technology & Society (3 AU)	
	GER-Elective in Liberal Studies (3 AU)	
Major Requirement	**CBE Core**	87
	BIE Core	87/88*
	Core Elective	9
2nd Major in Business	**Business Foundation Courses**	27
	Track Courses	12
Unrestricted Electives	**Unrestricted Electives**	4
Total AU requirement		151/152*

B.Eng. (Chemical & Biomolecular Engineering)

Suggested Study Plan for AY2015-2016 intake (BM)

with Professional Attachment (NEW)

Year 1 Semester 1

Course		AU
CH1102	Introduction to Chemical Engineering in New Era	1
CH1104	Mass & Energy Balance	4
CH1105	Materials Science	3
CH1131	Biomolecular Engineering	4
CH1801	Lab	1
MH1810	Math 1	3
HW001	English Proficiency*	
AD1101	Financial Accounting	4
AB1201	Financial Management	3
GC0001	Introduction to Sustainability	1
		24

Year 1 Semester 2

Course		AU
CH1117	Engineering Mathematics	4
CH2102	Organic Chemistry	4
CH1108	Thermodynamics	4
CH1802	Lab	1
HW0188	Engineering Communication I	2
AB1501	Marketing	3
BE1401	Business Operations and Processes	4
ML0001	Absolute Basics for Career	1
		23

* 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	3
CH3103	Chemical Thermodynamics	3
CH2801	Lab	2
AD2101	Management Accounting	4
HY0001	Ethics & Moral Reasoning	1
		19

Year 2 Semester 2

Course		AU
CH2104	Heat & Mass Transfer	4
CH2140	Unit Operation	4
CH3102	Chemical Reaction Engineering	4
CH2802	Lab	2
CH2109	Decision Tools for Business & Engineering	3
AB0901	Principles of Economics: A Singapore Perspective	3
		20

Year 3 Semester 1

Course		AU
CH3101	Process Control and Dynamics	4
CH3141	Advanced Unit Operations	3
CH3802	Lab	3
CH4101	Chemical, Biological & Plant Safety	2
CH0491	Engineers & Society	3
AB1301	Business Law	3
ET0001	Entrepreneurship & Innovation	1
HW0288	Engineering Communication II	2
		19

Year 3 Semester 2*

Course		AU
AB1601	Organisational Behaviour and Design	3
	CBE elective 1	3
	CBE elective 2	3
ML0002	Career Power UP	1
	Free elective 1	2
	Free elective 2	2
Year 3 Special Semester		
CH3820	Professional Attachment	4
		18

Year 4 Semester 1

Course		AU
CH4801	Final Year Design Project	4
	CBE elective 3	3
	Track Course 1	4
	Track Course 2	4
		15

Year 4 Semester 2

Course		AU
CH3104	Biochemical Engineering	3
CH4801	Final Year Design Project	4
	Track Course 2	4
		11

Total (AU) **151**

2nd Major Business ITP Track (PA by Default)

		Academic Units (AU)
University Requirement	**General Education Requirement Core (GER-Core)**	12
	English Communication I (2 AU)	
	English Communication II (2 AU)	
	Absolute Basics for Career (1 AU)	
	Career Power Up (1 AU)	
	Engineers & Society (3 AU)	
	Introduction to Sustainability; Multidisciplinary Approaches and Solutions (1 AU)	
	Entrepreneurship & Innovation (1 AU)	
	Ethics and Moral Reasoning (1 AU)	
	General Education Requirement Elective (GER-Elective)	0
	GER-Elective in Science, Technology & Society (3 AU)	
	GER-Elective in Liberal Studies (3 AU)	
Major Requirement	**CBE Core**	87
	BIE Core	87/88*
	Core Elective	9
2nd Major in Business	**Business Foundation Courses**	17
	Track Courses	25
Total AU requirement		150/151*

B.Eng. (Chemical & Biomolecular Engineering)

Suggested Study Plan for AY2015-2016 intake (BM ITP Track)

with Professional Attachment (NEW)

Year 1 Semester 1

Course		AU
CH1102	Introduction to Chemical Engineering in New Era	1
CH1104	Mass & Energy Balance	4
CH1105	Materials Science	3
CH1131	Biomolecular Engineering	4
CH1801	Lab	1
MH1810	Math 1	3
HW001	English Proficiency*	
AD1101	Financial Accounting	4
AB1201	Financial Management	3
GC0001	Introduction to Sustainability	1
		24

Year 1 Semester 2

Course		AU
CH1117	Engineering Mathematics	4
CH2102	Organic Chemistry	4
CH1108	Thermodynamics	4
CH1802	Lab	1
HW0188	Engineering Communication I	2
AB1301/ AB1501	Business Law/ Marketing	3
BE1401	Business Operations and Processes	4
ML0001	Absolute Basics for Career	1
		23

* 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	3
CH3103	Chemical Thermodynamics	3
CH2801	Lab	2
BF2201	Investments	4
HY0001	Ethics & Moral Reasoning	1
		19

Year 2 Semester 2

Course		AU
CH2104	Heat & Mass Transfer	4
CH2140	Unit Operation	4
CH3102	Chemical Reaction Engineering	4
CH2802	Lab	2
CH2109	Decision Tools for Business & Engineering	3
BF2209	Derivative Securities	4
AB0901	Principles of Economics: A Singapore Perspective	3
		24

Year 3 Semester 1

Course		AU
CH3101	Process Control and Dynamics	4
CH3141	Advanced Unit Operations	3
CH3802	Lab	3
CH4101	Chemical, Biological & Plant Safety	2
CH0491	Engineers & Society	3
BF2207	International Finance	4
ET0001	Entrepreneurship & Innovation	1
HW0288	Engineering Communication II	2
		22

Year 3 Semester 2*

Course		AU
MS8026	Commodities' Geology and Metallurgy	4
	CBE elective 1	3
	CBE elective 2	3
	Track Course 1	3
ML0002	Career Power UP	1

Year 3 Special Semester

CH3820	Professional Attachment	4
		18

Year 4 Semester 1

Course		AU
CH4801	Final Year Design Project	4
	CBE elective 3	3
BF3211	Commodities Trading and Risk Management	3
		10

Year 4 Semester 2

Course		AU
CH3104	Biochemical Engineering	3
CH4801	Final Year Design Project	4
BF2301	International Tax and Trading Law	3
		10

Total (AU) **150**

2nd Major Business (PI Option)

		Academic Units (AU)
University Requirement	**General Education Requirement Core (GER-Core)**	12
	English Communication I (2 AU)	
	English Communication II (2 AU)	
	Absolute Basics for Career (1 AU)	
	Career Power Up (1 AU)	
	Engineers & Society (3 AU)	
	Introduction to Sustainability; Multidisciplinary Approaches and Solutions (1 AU)	
	Entrepreneurship & Innovation (1 AU)	
	Ethics and Moral Reasoning (1 AU)	
	General Education Requirement Elective (GER-Elective)	0
	GER-Elective in Science, Technology & Society (3 AU)	
	GER-Elective in Liberal Studies (3 AU)	
Major Requirement	**CBE Core**	91
	BIE Core	91/92*
	Core Elective	9
2nd Major in Business	**Business Foundation Courses**	17
	Track Courses	25
Total AU requirement		154/155*

B.Eng. (Chemical & Biomolecular Engineering)
Suggested Study Plan for AY2015-2016 intake (BM ITP Track)

with Professional Internship (NEW)

Year 1 Semester 1

Course		AU
CH1102	Introduction to Chemical Engineering in New Era	1
CH1104	Mass & Energy Balance	4
CH1105	Materials Science	3
CH1131	Biomolecular Engineering	4
CH1801	Lab	1
MH1810	Math 1	3
HW001	English Proficiency*	
AD1101	Financial Accounting	4
AB1201	Financial Management	3
GC0001	Introduction to Sustainability	1
		24

Year 1 Semester 2

Course		AU
CH1117	Engineering Mathematics	4
CH2102	Organic Chemistry	4
CH1108	Thermodynamics	4
CH1802	Lab	1
HW0188	Engineering Communication I	2
AB1301/ AB1501	Business Law/ Marketing	3
BE1401	Business Operations and Processes	4
ML0001	Absolute Basics for Career	1
		23

* 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	3
CH3103	Chemical Thermodynamics	3
CH2801	Lab	2
BF2201	Investments	4
	CBE elective 1	3
HY0001	Ethics & Moral Reasoning	1
		22

Year 2 Semester 2

Course		AU
CH2104	Heat & Mass Transfer	4
CH2140	Unit Operation	4
CH3102	Chemical Reaction Engineering	4
CH2802	Lab	2
CH2109	Decision Tools for Business & Engineering	3
BF2209	Derivative Securities	4
AB0901	Principles of Economics: A Singapore Perspective	3
		24

Year 3 Semester 1

Course		AU
CH3101	Process Control and Dynamics	4
CH3141	Advanced Unit Operations	3
CH3802	Lab	3
CH4101	Chemical, Biological & Plant Safety	2
CH0491	Engineers & Society	3
BF2207	International Finance	4
ET0001	Entrepreneurship & Innovation	1
HW0288	Engineering Communication II	2
		22

Year 3 Semester 2*

Course		AU
CH3820	Professional Internship	8
ML0002	Career Power UP	1
		9

Year 4 Semester 1

Course		AU
CH4801	Final Year Design Project	4
	CBE elective 2	3
	CBE elective 3	3
BF3211	Commodities Trading and Risk Management	3
	Track Course 1	3
		16

Year 4 Semester 2

Course		AU
CH3104	Biochemical Engineering	3
CH4801	Final Year Design Project	4
MS8026	Commodities' Geology and Metallurgy	4
BF2301	International Tax and Trading Law	3
		14

Total (AU) **154**

FST (PI Option)

Curriculum Structure			Academic Unit (AU) Requirement	
			BEng Hons with 2nd Major in Food Science and Technology	**BEng Hons**
Core			91	91
Major Prescribed Elective (Major PE)			9	9
General Education Requirement (GER)	Core		12	12
	Prescribed Elective (PE)	Art, Humanities & Social Sciences (AHSS)	0	0
		Business & Management (BM)	0	3
		Any Category (AHSS,LS,BM or STS)	Exempted	0
		Liberal Studies (LS)	0	3
		Science, Technology & Society (STS)	0	3
	Unrestricted Electives (UE)	UE	6	15
		Food Science and Technology (Core)	18	NA
		Food Science and Technology (PE)	15	NA
Total AUs			**151**	**136**

FST (PA Option)

Curriculum Structure			Academic Unit (AU) Requirement	
			BEng Hons with 2nd Major in Food Science and Technology	**BEng Hons**
Core			87	91
Major Prescribed Elective (Major PE)			9	9
General Education Requirement (GER)	Core		12	12
	Prescribed Elective (PE)	Art, Humanities & Social Sciences (AHSS)	0	0
		Business & Management (BM)	0	3
		Any Category (AHSS,LS,BM or STS)	Exempted	0
		Liberal Studies (LS)	0	3
		Science, Technology & Society (STS)	0	3
	Unrestricted Electives (UE)	UE	10	15
		Food Science and Technology (Core)	18	NA
		Food Science and Technology (PE)	15	NA
Total AUs			**151**	**136**

B.Eng. (Chemical & Biomolecular Engineering)
Suggested Study Plan for AY2015-2016 intake (FST)
with Professional Internship (NEW)

Year 1 Semester 1

Course		AU
CH1102	Introduction to Chemical Engineering in New Era	1
CH1104	Mass & Energy Balance	4
CH1105	Materials Science	3
CH1131	Biomolecular Engineering	4
CH1801	Lab	1
MH1810	Math 1	3
HW001	English Proficiency*	
GC0001	Introduction to Sustainability	1
		17

Year 1 Semester 2

Course		AU
CH1117	Engineering Mathematics	4
CH2102	Organic Chemistry	4
CH1108	Thermodynamics	4
CH1802	Lab	1
HW0188	Engineering Communication I	2
ML0001	Absolute Basics for Career	1
		16

* 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	3
CH3103	Chemical Thermodynamics	3
CH2801	Lab	2
	CBE elective 1	3
CH9201	Food Chemistry	5
	GER-UE (PE-NTU)	3
HY0001	Ethics & Moral Reasoning	1
		26

Year 2 Semester 2

Course		AU
CH2104	Heat & Mass Transfer	4
CH2140	Unit Operation	4
CH3102	Chemical Reaction Engineering	4
CH2802	Lab	2
CH2109	Decision Tools for Business & Engineering	3
CH9200	Food Microbiology	3
	GER-UE (PE-NTU)	3
	GER-UE (PE-NTU)	3
		26

Year 3 Semester 1

Course		AU
CH3101	Process Control and Dynamics	4
CH3141	Advanced Unit Operations	3
CH3802	Lab	3
CH4101	Chemical, Biological & Plant Safety	2
CH0491	Engineers & Society	3
CH9203	Food Process Engineering	5
ET0001	Entrepreneurship & Innovation	1
HW0288	Engineering Communication II	2
		23

Year 3 Semester 2*

Course		AU
CH3820	Professional Internship	8
ML0002	Career Power UP	1
		9

Year 4 Semester 1

Course		AU
CH4801	Final Year Design Project	4
	CBE elective 2	3
	CBE elective 3	3
	Free elective 1	3
	GER-UE (PE-NTU)	3
	GER-UE (PE-NTU)	3
		19

Year 4 Semester 2

Course		AU
CH3104	Biochemical Engineering	3
CH4801	Final Year Design Project	4
CH9202	Food Physics	3
CH9204	Quality Systems Operations	2
	Free elective 2	3
		15

Total (AU) **151**

B.Eng. (Chemical & Biomolecular Engineering)
Suggested Study Plan for AY2015-2016 intake (FST)
with Professional Attachment (NEW)

Year 1 Semester 1

Course		AU
CH1102	Introduction to Chemical Engineering in New Era	1
CH1104	Mass & Energy Balance	4
CH1105	Materials Science	3
CH1131	Biomolecular Engineering	4
CH1801	Lab	1
MH1810	Math 1	3
HW001	English Proficiency*	
GC0001	Introduction to Sustainability	1
		17

Year 1 Semester 2

Course		AU
CH1117	Engineering Mathematics	4
CH2102	Organic Chemistry	4
CH1108	Thermodynamics	4
CH1802	Lab	1
HW0188	Engineering Communication I	2
ML0001	Absolute Basics for Career	1
		16

* 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	3
CH3103	Chemical Thermodynamics	3
CH2801	Lab	2
CH9201	Food Chemistry	5
	GER-UE (PE-NTU)	3
HY0001	Ethics & Moral Reasoning	1
		23

Year 2 Semester 2

Course		AU
CH2104	Heat & Mass Transfer	4
CH2140	Unit Operation	4
CH3102	Chemical Reaction Engineering	4
CH2802	Lab	2
CH2109	Decision Tools for Business & Engineering	3
CH9200	Food Microbiology	3
	GER-UE (PE-NTU)	3
	GER-UE (PE-NTU)	3
		26

Year 3 Semester 1

Course		AU
CH3101	Process Control and Dynamics	4
CH3141	Advanced Unit Operations	3
CH3802	Lab	3
CH4101	Chemical, Biological & Plant Safety	2
CH0491	Engineers & Society	3
CH9203	Food Process Engineering	5
ET0001	Entrepreneurship & Innovation	1
HW0288	Engineering Communication II	2
		23

Year 3 Semester 2*

Course		AU
CH9202	Food Physics	3
CH9204	Quality Systems Operations	2
ML0002	Career Power UP	1
	CBE elective 1	3
	CBE elective 2	3
	CBE elective 3	3
Year 3 Special Semester		
CH3820	Professional Attachment	4
		19

Year 4 Semester 1

Course		AU
CH4801	Final Year Design Project	4
	GER-UE (PE-NTU)	3
	GER-UE (PE-NTU)	3
	Free elective 1	3
	Free elective 2	3
		16

Year 4 Semester 2

Course		AU
CH3104	Biochemical Engineering	3
CH4801	Final Year Design Project	4
	Free elective 3	2
	Free elective 4	2
		11

Total (AU) **151**

CBEC (PI Option)

Category		AU	
Core		91	139
Core Elective	CBE	9	
	Economics	39	
GER Core		12	12
GER Elective		0	
Free Elective (Economics <Core>)		25	
Total		176	

CBEC (PA Option)

Category		AU	
Core		87	139
Core Elective	CBE	9	
	Economics	39	
GER Core		12	12
GER Elective		0	
Free Elective (Economics <Core>)		29	
Total		176	

Double Degree in Engineering and Economics
B.Eng. (Chemical & Biomolecular Engineering) and Economics
Suggested Study Plan for AY2015-2016 intake
with Professional Internship (NEW)

Year 1 Semester 1

Course		AU
MH1810	Math 1	3
CH1102	Introduction to Chemical Engineering in New Era	1
CH1104	Materials & Energy Balance	4
CH1105	Materials Science	3
CH1131	Biomolecular Engineering	4
CH1801	Lab 1	1
HE1001	Microeconomics Principles	3
HE1002	Macroeconomics Principles	3
GC0001	Introduction to Sustainability	1
		23

Year 1 Semester 2

Course		AU
CH1117	Engineering Mathematics	4
CH2102	Organic Chemistry and Spectrophotometry	4
CH1108	Thermodynamics	4
CH1802	Lab 2	1
HW0188	Engineering Communication I	2
HE1005	Intro to Probability & Statistical Inference	3
HE2001	Intermediate Microeconomics	3
HE2002	Intermediate Macroeconomics	3
ML0001	Absolute Basics for Career	1
		25

Year 2 Semester1

Course		AU
CH2103	Fluid Systems	4
CH2106	Introduction to Multidisciplinary Engineering	2
CH2107	Computational Methods	3
CH3103	Chemical Thermodynamics	3
CH2801	Lab 2A	2
HE2005	Principles of Ecometrics	3
HY0001	Ethics & Moral Reasoning	1
		18

Year 2 Semester 2

Course		AU
CH2104	Heat & Mass Transfer	4
CH2109	Decision Tools for Business & Engineering	3
CH2140	Unit Operation	4
CH3102	Chemical Reaction Engineering	4
CH2802	Lab 2B	2
HE3021	Intermediate Econometrics	3
		20

Year 3 Semester 1

Course		AU
CH3101	Process Control and Dynamics	4
CH3141	Advanced Unit Operations	3
CH3802	Lab 3	3
CH4101	Chemical, Biological & Plant Safety	2
CH0491	Engineers & Society	3
HE4010	Singapore Economy in A Globalized World	4
ET0001	Entrepreneurship & Innovation	1
HW0288	Engineering Communication II	2
		22

Year 3 Semester 2

Course		AU
CH3820	Professional Internship	8
ML0002	Career Power UP	1
		9

Year 4 Semester 1

Course		AU
CH4801	Final Year Design Project	4
	CBE elective 1	3
	CBE elective 2	3
	Econs elective 1	3
	Econs elective 2	3
		16

Year 4 Semester 2

Course		AU
CH3104	Biochemical Engineering	3
CH4801	Final Year Design Project	4
	CBE elective 3	3
	Econs elective 3	3
	Econs elective 4	3
		16

Year 5 Semester 1

Course	AU
Econs elective 5	3
Econs elective 6	3
Econs elective 7	3
Econs elective 8	3
Econs elective 9	3
	15

Year 5 Semester 2

Course	AU
Econs elective 10	4
Econs elective 11	4
Econs elective 12	4
	12

Total (AU) **176**

Double Degree in Engineering and Economics

B.Eng. (Chemical & Biomolecular Engineering) and Economics

Suggested Study Plan for AY2015-2016 intake

with Professional Attachment (NEW)

Year 1 Semester 1

Course		AU
MH1810	Math 1	3
CH1102	Introduction to Chemical Engineering in New Era	1
CH1104	Materials & Energy Balance	4
CH1105	Materials Science	3
CH1131	Biomolecular Engineering	4
CH1801	Lab 1	1
HE1001	Microeconomics Principles	3
HE1002	Macroeconomics Principles	3
GC0001	Introduction to Sustainability	1
		23

Year 1 Semester 2

Course		AU
CH1117	Engineering Mathematics	4
CH2102	Organic Chemistry	4
CH1108	Thermodynamics	4
CH1802	Lab 2	1
HW0188	Engineering Communication I	2
HE1005	Intro to Probability & Statistical Inference	3
HE2001	Intermediate Economics	3
HE2002	Intermediate Economics	3
ML0001	Absolute Basics for Career	1
		25

Year 2 Semester1

Course		AU
CH2103	Fluid Systems	4
CH2106	Introduction to Multidisciplinary Engineering	2
CH2107	Computational Methods	3
CH3103	Chemical Thermodynamics	3
CH2801	Lab 2A	2
HE2005	Principles of Ecometrics	3
HY0001	Ethics & Moral Reasoning	1
		18

Year 2 Semester 2

Course		AU
CH2104	Heat & Mass Transfer	4
CH2109	Decision Tools for Business & Engineering	3
CH2140	Unit Operation	4
CH3102	Chemical Reaction Engineering	4
CH2802	Lab 2B	2
		19

Year 3 Semester 1

Course		AU
CH3101	Process Control and Dynamics	4
CH3141	Advanced Unit Operations	3
CH3802	Lab 3	3
CH4101	Chemical, Biological & Plant Safety	2
CH0491	Engineers & Society	3
HE4010	Singapore Economy In A Globalized World	4
ET0001	Entrepreneurship & Innovation	1
HW0288	Engineering Communication II	2
		22

Year 3 Semester 2

Course		AU
HE3021	Intermediate Econometrics	3
ML0002	Career Power UP	1
	Econs Elective 1	3
	Econs Elective 2	3
	Econs Elective 3	3
	Econs Elective 4	3
	Free elective 1	2
Year 3 Special Semester		
CH3820	Professional Attachment	4
		22

Year 4 Semester 1

Course		AU
CH4801	Final Year Design Project	4
	CBE elective 1	3
	CBE elective 2	3
	Econs Elective 5	3
		13

Year 4 Semester 2

Course		AU
CH3104	Biochemical Engineering	3
CH4801	Final Year Design Project	4
	CBE elective 3	3
	Free elective 2	2
		12

Year 5 Semester 1

Course	AU
Econs Elective 6	3
Econs Elective 7	3
Econs Elective 8	3
Econs Elective 9	3
	12

Year 5 Semester 2

Course	AU
Econs Elective 10	4
Econs Elective 11	4
Econs Elective 12	4
	12

Total (AU) **176**

B.Eng. (Chemical & Biomolecular Engineering)
Suggested Study Plan for AY2015-2016 intake (CN Yang)
with Professional Internship (NEW)

Year 1 Semester 1

Course		AU
CY1001	Introduction to Biology	4
CY1101	Principles of Modern Chemistry	4
CY1102	Experimental Chemistry & Biological Chemistry	3
CY1201	Calculus of One Variable	4
CY1305	Mechanics	3
GC0001	Introduction to Sustainability	1
	GER elective 1 (STS)	3
HW0188	Engineering Communication I	2
		24

Year 1 Semester 2

Course		AU	
CY1202	Calculus of Several Variables	4	
CY1306	Electricity and Magnetism	3	
CY1307	Relativity and Quantum Physics	3	PE
CY1400	CN Yang Scholars Programme Undergraduate Research Experience	3	
CY1500	Introductory Research Methodology	3	
CH2102	Organic Chemistry	4	
CH1108	Thermodynamics	4	
ML0001	Absolute Basics for Career	1	
		25	

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

Year 2 Semester 1

Course		AU
CY1203	Linear Algebra & Differential Equations	4
CH1104	Materials & Energy Balance	4
CH1131	Biomolecular Engineering	4
CH2103	Fluids Systems	4
CH3103	Chemical Thermodynamics	3
	GER elective 2 (BM)	3
HY0001	Ethics & Moral Reasoning	1
		23

Year 2 Semester 2

Course		AU
CH2104	Heat & Mass Transfer	4
CH2109	Decision Tools for Business & Engineering	3
CH2140	Unit Operation	4
CH3102	Chemical Reaction Engineering	4
CH2802	Lab 2B	2
	GER elective 3 (LA)	3
		20

Year 3 Semester 1

Course		AU
CH2107	Computational Methods	3
CH3101	Process Control and Dynamics	4
CH3141	Advanced Unit Operations	3
CH3802	Lab 3	3
CH0491	Engineers & Society	3
ET0001	Entrepreneurship & Innovation	1
HW0288	Engineering Communication II	2
		19

Year 3 Semester 2

Course		AU
CH3820	Professional Internship	8
ML0002	Career Power UP	1
		9

Year 4 Semester1

Course		AU
CH4101	Chemical, Biological & Plant Safety	2
CH4801	Final Year Design Project	4
	CBE elective 1	3
	CBE elective 2	3
		12

Year 4 Semester 2

Course		AU
CH3104	Biochemical Engineering	3
CH4801	Final Year Design Project	4
	CBE elective 3	3
	Free elective 1	3
		13

Total (AU) **145**