

B.Eng. (Bioengineering)
Suggested Study Plan for AY2014-2015 intake ONWARDS
with Professional Internship (NEW)

Year 1 Semester 1			Year 1 Semester 2		
Course		AU	Course		AU
BG1101	Introduction to Biomedical Engineering	2	BG1105	Materials Science	3
BG1103	Chemistry for Engineers	3	BG1109	Anatomy and Physiology	3
BG1131	Molecular Cell Biology for Biomedical Engineers	4	BG1117	Engineering Mathematics	4
BG1801	Bioengineering Lab 1A	1	BG1802	Bioengineering Lab 1B	1
GC0001	Introduction to Sustainability	1	ML0001	Absolute Basics for Career	1
HW0001	English Proficiency#			GER elective 2	3
HW0188	Engineering Communication I	2		Free elective 1	3
MH1810	Math 1	3			
PH1011	Physics	3			
	<i>or</i>				
PH1012	*Physics A (For students without 'A' Level Physics)	4*			
	GER elective 1	3			
		22/23*			18
<i>#For students who have not passed or been exempted from the Qualifying English Test at the time of admission.</i>					
Year 2 Semester 1			Year 2 Semester 2		
Course		AU	Course		AU
BG2112	Cardiovascular Engineering	4	BG2109	Biomechanics	3
BG2131	Biomaterials	3	BG2110	Bioelectricity	3
BG2141	Mechanics of Materials	3	BG2111	Computational Methods	4
BG2104	Electronics for Biomedical Engineers	3	BG2142	Biological Thermodynamics	3
BG2801	Bioengineering Lab 2A	1	BG2802	Bioengineering Lab 2B	1
HY0001	Ethics & Moral Reasoning	1		Free elective 2	3
	GER elective 3	3		Free elective 3	3
		18			20
Year 3 Semester 1			Year 3 Semester 2		
Course		AU	Course		AU
BG3102	Control in Biosystems	3	BG3720	Professional Internship	8
BG3103	Signal Processing in Biosystems	3	ML0002	Career Power Up	1
BG3104	Biomedical Imaging	3			
BG3105	Biomedical Instrumentation	3			
BG3801	Bioengineering Lab 3	1			
ET0001	Entrepreneurship & Innovation	1			
HW0288	Engineering Communication II	2			
	Free elective 4	3			
		19			9
Year 4 Semester 1			Year 4 Semester 2		
Course		AU	Course		AU
BG4102	Medical Device Design	3	BG0491	Engineers & Society	3
BG4103	Biomedical Project Design & Management	4	BG4801	Final Year Project	4
BG4801	Final Year Project	4		BIE PE 2	3
	BIE PE 1	3		BIE PE 3	3
		14		Free Elective 5	3
					16
Total (AU)					136/ 137*

B.Eng. (Bioengineering)
Suggested Study Plan for AY2014-2015 intake ONWARDS (ABP)
with Professional Internship (NEW)

Year 1 Semester1

Course		AU
BG1101	Introduction to Biomedical Engineering	2
BG1103	Chemistry for Engineers	3
BG1131	Molecular Cell Biology for Biomedical Engineers	4
BG1801	Bioengineering Lab 1A	1
GC0001	Introduction to Sustainability	1
HW0001	English Proficiency#	
HW0188	Engineering Communication I	2
MH1810	Math 1	3
PH1011	Physics	3
	<i>or</i>	
PH1012	*Physics A (For students without 'A' Level Physics)	4*
	GER elective 1	3

Semester 2

Course		AU
BG1105	Materials Science	3
BG1109	Anatomy and Physiology	3
BG1117	Engineering Mathematics	4
BG1802	Bioengineering Lab 1B	1
ML0001	Absolute Basics for Career	1
	GER elective 2	3
	Free elective 1	3
	Free elective 2	3

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#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
BG2104	Electronics for Biomedical Engineers	3
BG2112	Cardiovascular Engineering	4
BG2131	Biomaterials	3
BG2141	Mechanics of Materials	3
BG2801	Bioengineering Lab 2A	1
HY0001	Ethics & Moral Reasoning	1
	GER elective 3	3
	Free elective 3	3
	BIE PE 1	3

Semester 2

Course		AU
BG2109	Biomechanics	3
BG2110	Bioelectricity	3
BG2111	Computational Methods	4
BG2142	Biological Thermodynamics	3
BG2802	Bioengineering Lab 2B	1
	Free elective 4	3
	Free elective 5	3
	BIE PE 2	3

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Year 3 Semester 1

Course		AU
BG3102	Control in Biosystems	3
BG3103	Signal Processing in Biosystems	3
BG3104	Biomedical Imaging	3
BG3105	Biomedical Instrumentation	3
BG3801	Bioengineering Lab 3	1
BG4801	Final Year Project	4
HW0288	Engineering Communication II	2

Semester 2

Course		AU
BG3720	Professional Internship	8
ML0002	Career Power Up	1

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Year 4 Semester1

Course		AU
BG0491	Engineers & Society	3
BG4102	Medical Device Design	3
BG4103	Biomedical Project Design & Management	4
BG4801	Final Year Project	4
ET0001	Entrepreneurship & Innovation	1
	BIE PE 3	3

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Total (AU)

**136/
137***

B.Eng. (Bioengineering)
Suggested Study Plan for AY2015-2016 intake (Direct entry)
with Professional Internship (NEW)

Year 2 Semester 1			Year 2 Semester 2		
Course		AU	Course		AU
BG1101	Introduction to Biomedical Engineering	2	BG1117	Engineering Mathematics	4
BG1103	Chemistry for Engineers	3	BG1109	Anatomy & Physiology	3
BG1131	Molecular Cell Biology for Biomedical Engineers	4	BG2109	Biomechanics	3
BG2104	Electronics for Biomedical Eng	3	BG2110	Bioelectricity	3
BG2131	Biomaterials	3	BG2111	Computational Methods	4
BG2141	Mechanics of Materials	3	BG2142	Biological Thermodynamics	3
BG2801	Lab 2A	1	BG2802	Lab 2B	1
HW0188	Engineering Communication I	2	ML0001	Absolute Basics for Career	1
GC0001	Introduction to Sustainability	1			
		22			22
Year 3 Semester 1			Year 3 Semester 2		
Course		AU	Course		AU
BG2112	Cardiovascular Engineering	4	BG3820	Professional Internship	8
BG3102	Control in Biosystems	3	ML0002	Career Power UP	1
BG3103	Signal Processing	3			
BG3104	Biomedical Imaging	3			
BG3105	Biomedical Instrumentation	3			
BG3801	Lab 3	1			
HW0288	Engineering Communication II	2			
	GER elective (Any)	3			
HY0001	Ethics & Moral Reasoning	1			
		23			9
Year 4 Semester 1			Year 4 Semester 2		
Course		AU	Course		AU
BG4103	Biomedical Project Design & Management	4	BG4801	Final Year Project	4
BG4801	Final Year Project	4	BG4102	Medical Device Design	3
	BIE elective 1	3	BG0491	Engineers & Society	3
	Free elective 1	3		BIE elective 2	3
	Free elective 2	3		BIE elective 3	3
ET0001	Entrepreneurship & Innovation	1			
		18			16
					Total (AU)
					110

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 Studies (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. (Bioengineering)
Suggested Study Plan for AY2014-2015 intake (BM)
with Professional Internship (NEW)

Year 1 Semester 1

Course		AU
BG1101	Introduction to Biomedical Engineering	2
MH1810	Math 1	3
PH1011	Physics	3
	or	
PH1012	*Physics A (For students without A-Level Physics)	4*
BG1103	Chemistry for Engineers	3
BG1801	Bioengineering Lab 1A	1
HW0188	Engineering Communication I	2
AD1101	Financial Accounting	4
AB1201	Financial Management	3
GC0001	Introduction to Sustainability	1

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Year 1 Semester 2

Course		AU
BG1105	Materials Science	3
BG1117	Engineering Mathematics	4
BG1109	Anatomy and Physiology	3
BG1802	Bioengineering Lab 1B	1
AB1501	Marketing	3
BE1401	Business Operations and Processes	4
ML0001	Absolute Basics for Career	1

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Year 2 Semester 1

Course		AU
BG2112	Cardiovascular Engineering	4
BG2131	Biomaterials	3
BG2141	Mechanics of Materials	3
BG2104	Electronics for Biomedical Eng	3
BG2801	Lab 2A	1
BG1131	Molecular Cell Biology for Biomedical Engineers	4
AD2101	Management Accounting	4
HY0001	Ethics and Moral Reasoning	1

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Year 2 Semester 2

Course		AU
BG2109	Biomechanics	3
BG2111	Computational Methods	4
BG2142	Biological Thermodynamics	3
BG2110	Bioelectricity	3
BG2802	Bioengineering Lab 2B	1
AB0901	Principles of Economics: A Singapore Perspective	3
AB1601	Organisational Behaviour and Design	3
HW0288	Engineering Communication II	2

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Year 3 Semester 1

Course		AU
BG3102	Control in Biosystems	3
BG3103	Signal Processing in Biosystems	3
BG3104	Biomedical Imaging	3
BG3105	Biomedical Instrumentation	3
BG3801	Bioengineering Lab 3	1
AB1301	Business Law	3
ET0001	Entrepreneurship & Innovation	1
	BIE PE 1	3

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Year 3 Semester 2

Course		AU
BG3720	Professional Internship	8
ML0002	Career Power UP	1

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Year 4 Semester 1

Course		AU
BG4101	Biomedical Project Design & Management	4
BG4801	Final Year Project	4
	BIE PE 2	3
	Track Course 1	4
	Track Course 2	4

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Year 4 Semester 2

Course		AU
BG4801	Final Year Project	4
BG4102	Medical Device Design	3
BG0491	Engineers & Society	3
	BIE PE 3	3
	Track Course 3	4

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Total (AU)

151/152*

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. (Bioengineering)
Suggested Study Plan for AY2014-2015 intake (BM)
with Professional Attachment (NEW)

Year 1 Semester 1

Course		AU
BG1101	Introduction to Biomedical Engineering	2
MH1810	Math 1	3
PH1011	Physics	3
	or	
PH1012	*Physics A (For students without A-Level Physics)	4*
BG1103	Chemistry for Engineers	3
BG1801	Bioengineering Lab 1A	1
HW0188	Engineering Communication I	2
AD1101	Financial Accounting	4
AB1201	Financial Management	3
GC0001	Introduction to Sustainability	1

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Year 1 Semester 2

Course		AU
BG1105	Materials Science	3
BG1117	Engineering Mathematics	4
BG1109	Anatomy and Physiology	3
BG1802	Bioengineering Lab 1B	1
AB1501	Marketing	3
BE1401	Business Operations and Processes	4
ML0001	Absolute Basics for Career	1

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Year 2 Semester 1

Course		AU
BG2112	Cardiovascular Engineering	4
BG2131	Biomaterials	3
BG2141	Mechanics of Materials	3
BG2104	Electronics for Biomedical Eng	3
BG2801	Lab 2A	1
BG1131	Molecular Cell Biology for Biomedical Engineers	4
AD2101	Management Accounting	4
HY0001	Ethics and Moral Reasoning	1

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Year 2 Semester 2

Course		AU
BG2109	Biomechanics	3
BG2111	Computational Methods	4
BG2142	Biological Thermodynamics	3
BG2110	Bioelectricity	3
BG2802	Bioengineering Lab 2B	1
AB0901	Principles of Economics: A Singapore Perspective	3
HW0288	Engineering Communication II	2

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Year 3 Semester 1

Course		AU
BG3102	Control in Biosystems	3
BG3103	Signal Processing in Biosystems	3
BG3104	Biomedical Imaging	3
BG3105	Biomedical Instrumentation	3
BG3801	Bioengineering Lab 3	1
AB1301	Business Law	3
ET0001	Entrepreneurship & Innovation	1

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Year 3 Semester 2

Course		AU
AB1601	Organisational Behaviour and Design	3
BG0491	Engineers & Society	3
ML0002	Career Power UP	1
	BIE PE 2	3
	BIE PE 1	3
	Free elective 1	2
	Free elective 2	2

Year 3 Special Semester

BG3720	Professional Attachment	4
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Year 4 Semester 1

Course		AU
BG4101	Biomedical Project Design & Management	4
BG4801	Final Year Project	4
	BIE PE 3	3
	Track Course 1	4

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Year 4 Semester 2

Course		AU
BG4801	Final Year Project	4
BG4102	Medical Device Design	3
	Track Course 2	4
	Track Course 3	4

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Total (AU)

151/152*

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. (Bioengineering)
Suggested Study Plan for AY2014-2015 intake (BM ITP Track)
with Professional Attachment (NEW)

Year 1 Semester 1

Course		AU
BG1101	Introduction to Biomedical Engineering	2
MH1810	Math 1	3
PH1011	Physics	3
	or	
PH1012	*Physics A (For students without A-Level Physics)	4*
BG1103	Chemistry for Engineers	3
BG1801	Bioengineering Lab 1A	1
HW0188	Engineering Communication I	2
AD1101	Financial Accounting	4
AB1201	Financial Management	3
GC0001	Introduction to Sustainability	1

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Year 1 Semester 2

Course		AU
BG1105	Materials Science	3
BG1117	Engineering Mathematics	4
BG1109	Anatomy and Physiology	3
BG1802	Bioengineering Lab 1B	1
AB1301/ AB1501	Business Law/ Marketing	3
BE1401	Business Operations and Processes	4
ML0001	Absolute Basics for Career	1

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Year 2 Semester 1

Course		AU
BG2112	Cardiovascular Engineering	4
BG2131	Biomaterials	3
BG2141	Mechanics of Materials	3
BG2104	Electronics for Biomedical Eng	3
BG2801	Lab 2A	1
BG1131	Molecular Cell Biology for Biomedical Engineers	4
BF2201	Investments	4
HY0001	Ethics & Moral Reasoning	1

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Year 2 Semester 2

Course		AU
BG2109	Biomechanics	3
BG2111	Computational Methods	4
BG2142	Biological Thermodynamics	3
BG2110	Bioelectricity	3
BG2802	Bioengineering Lab 2B	1
BF2209	Derivative Securities	4
AB0901	Principles of Economics: A Singapore Perspective	3

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Year 3 Semester 1

Course		AU
BG3102	Control in Biosystems	3
BG3103	Signal Processing in Biosystems	3
BG3104	Biomedical Imaging	3
BG3105	Biomedical Instrumentation	3
BG3801	Bioengineering Lab 3	1
BF2207	International Finance	4
ET0001	Entrepreneurship & Innovation	1
HW0288	Engineering Communication II	2

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Year 3 Semester 2

Course		AU
MS8026	Commodities' Geology and Metallurgy	4
BG0491	Engineers & Society	3
ML0002	Career Power UP	1
	BIE PE 2	3
	BIE PE 1	3
	Track Course 1	3

Year 3 Special Semester

BG3720	Professional Attachment	4
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Year 4 Semester 1

Course		AU
BG4101	Biomedical Project Design & Management	4
BG4801	Final Year Project	4
BG4102	Medical Device Design	3
BF3211	Commodities Trading and Risk Management	3

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Year 4 Semester 2

Course		AU
BG4801	Final Year Project	4
BF2301	International Tax and Trading Law	3
	BIE PE 3	3

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Total (AU)

150/151*

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 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. (Bioengineering)
Suggested Study Plan for AY2014-2015 intake (BM ITP Track)
with Professional Internship (NEW)

Year 1 Semester 1

Course		AU
BG1101	Introduction to Biomedical Engineering	2
MH1810	Math 1	3
PH1011	Physics	3
	or	
PH1012	*Physics A (For students without A-Level Physics)	4*
BG1103	Chemistry for Engineers	3
BG1801	Bioengineering Lab 1A	1
HW0188	Engineering Communication I	2
AD1101	Financial Accounting	4
AB1201	Financial Management	3
GC0001	Introduction to Sustainability	1
		22/23*

Year 1 Semester 2

Course		AU
BG1105	Materials Science	3
BG1117	Engineering Mathematics	4
BG1109	Anatomy and Physiology	3
BG1802	Bioengineering Lab 1B	1
AB1301/ AB1501	Business Law/ Marketing	3
BE1401	Business Operations and Processes	4
ML0001	Absolute Basics for Career	1
	Track Course 1	3
		22

Year 2 Semester 1

Course		AU
BG2112	Cardiovascular Engineering	4
BG2131	Biomaterials	3
BG2141	Mechanics of Materials	3
BG2104	Electronics for Biomedical Eng	3
BG2801	Lab 2A	1
BG1131	Molecular Cell Biology for Biomedical Engineers	4
BF2201	Investments	4
HY0001	Ethics & Moral Reasoning	1
		23

Year 2 Semester 2

Course		AU
BG2109	Biomechanics	3
BG2111	Computational Methods	4
BG2142	Biological Thermodynamics	3
BG2110	Bioelectricity	3
BG2802	Bioengineering Lab 2B	1
BF2209	Derivative Securities	4
AB0901	Principles of Economics: A Singapore Perspective	3
	BIE PE 1	3
		24

Year 3 Semester 1

Course		AU
BG3102	Control in Biosystems	3
BG3103	Signal Processing in Biosystems	3
BG3104	Biomedical Imaging	3
BG3105	Biomedical Instrumentation	3
BG3801	Bioengineering Lab 3	1
BF2207	International Finance	4
ET0001	Entrepreneurship & Innovation	1
HW0288	Engineering Communication II	2
		20

Year 3 Semester 2

Course		AU
BG3720	Professional Internship	8
ML0002	Career Power UP	1
		9

Year 4 Semester 1

Course		AU
BG4101	Biomedical Project Design & Management	4
BG4801	Final Year Project	4
BG4102	Medical Device Design	3
BF3211	Commodities Trading and Risk Management	3
	BIE PE 2	3
		17

Year 4 Semester 2

Course		AU
BG4801	Final Year Project	4
BG0491	Engineers & Society	3
MS8026	Commodities' Geology and Metallurgy	4
BF2301	International Tax and Trading Law	3
	BIE PE 3	3
		17

Total (AU)

154/155*

BEEC (PI Option)

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

BEEC (PA Option)

Category		AU	
Core		87	139
Core Elective	BIE	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. (Bioengineering) and B.Arts (Economics)
Suggested Study Plan for AY2014-2015 intake
with Professional Internship (NEW)

Year 1	Semester 1			Semester 2		
	Course		AU	Course		AU
	BG1101	Intro to Biomedical Engineering	2	BG1105	Materials Science	3
	BG1103	Chemistry For Engineers	3	BG1117	Math 1	4
	BG1131	Molecular Cell Biology For Biomed Engrs	4	BG1109	Anatomy & Physiology	3
	BG1801	Lab 1A	1	BG1802	Lab 1B	1
	MH1810	Math 1	3	HE1005	Intro to Probability & Statistical Inference	3
	PH1011	Physics	3	HE2001	Intermediate Microeconomics	3
	HE1001	Microeconomic Principles	3	HW0188	Engineering Communication I	2
	HE1002	Macroeconomic Principles	3	ML0001	Absolute Basics for Career	1
	HW001	English Proficiency*				
	GC0001	Introduction to Sustainability	1			
			23			20

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

Year 2	Semester 1			Semester 2		
	Course		AU	Course		AU
	BG2104	Electronics for Biomedical Eng	3	BG2109	Biomechanics	3
	BG2112	Cardiovascular Engineering	4	BG2110	Bioelectricity	3
	BG2131	Biomaterials	3	BG2111	Computational Methods	4
	BG2141	Mechanics of Materials	3	BG2142	Biological Thermodynamics	3
	BG2801	Lab 2A	1	BG2802	Lab 2B	1
	HE2005	Principles of Econometrics	3	HE3021	Intermediate Econometrics	3
	HY0001	Ethics & Moral Reasoning	1	HE2002	Intermediate Macroeconomics	3
		Econs elective 1	3			
			21			20

Year 3	Semester 1			Semester 2		
	Course		AU	Course		AU
	BG3102	Control in Biosystems	3	BG3810	Professional Internship	8
	BG3103	Signal Processing	3	ML0002	Career Power UP	1
	BG3104	Biomedical Imaging	3			
	BG3105	Biomedical Instrumentation	3			
	BG3801	Lab 3	1			
	HE4010	Singapore Economy in a Globalized World	4			
	ET0001	Entrepreneurship & Innovation	1			
	HW0288	Engineering Communication II	2			
			20			9

Year 4	Semester 1			Semester 2		
	Course		AU	Course		AU
	BG4103	Biomedical Project Design & Management	4	BG4801	Final Year Project	4
	BG4801	Final Year Project	4	BG0491	Engineers & Society	3
	BG4102	Medical Device Design	3		BIE elective 2	3
		BIE elective 1	3		BIE elective 3	3
		Econs elective 2	3		Econs elective 3	3
					Econs elective 4	3
			17			19

Year 5	Semester 1		Semester 2	
	Course	AU	Course	AU
	Econs elective 5	3	Econs elective 10	4
	Econs elective 6	3	Econs elective 11	4
	Econs elective 7	3	Econs elective 12	4
	Econs elective 8	3		
	Econs elective 9	3		
		15		12
			Total (AU)	176

Double Degree in Engineering and Economics
B.Eng. (Bioengineering) and B.Arts (Economics)
Suggested Study Plan for AY2014-2015 intake
with Professional Attachment (NEW)

Year 1 Semester 1				Semester 2			
Course		AU		Course		AU	
BG1101	Intro to Biomedical Engineering	2		BG1105	Materials Science	3	
BG1103	Chemistry for Engineers	3		BG1117	Math 1	4	
BG1131	Molecular Cell Biology for Biomed Engrs	4		BG1109	Anatomy & Physiology	3	
BG1801	Lab 1A	1		BG1802	Lab 1B	1	
MH1810	Math 1	3		HE1005	Intro to Probability & Statistical Inference	3	
PH1011	Physics	3		HE2001	Intermediate Microeconomics	3	
HE1001	Microeconomic Principles	3		HW0188	Engineering Communication I	2	
HE1002	Macroeconomic Principles	3		ML0001	Absolute Basics for Career	1	
HW001	English Proficiency*						
GC0001	Introduction to Sustainability	1					
23				20			

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

Year 2 Semester1				Semester 2			
Course		AU		Course		AU	
BG2104	Electronics for Biomedical Eng	3		BG2109	Biomechanics	3	
BG2112	Cardiovascular Engineering	4		BG2110	Bioelectricity	3	
BG2131	Biomaterials	3		BG2111	Computational Methods	4	
BG2141	Mechanics of Materials	3		BG2142	Biological Thermodynamics	3	
BG2801	Lab 2A	1		BG2802	Lab 2B	1	
HE2005	Principles of Econometrics	3		HE2002	Intermediate Macroeconomics	3	
HY0001	Ethics & Moral Reasoning	1					
	Econs elective 1	3					
21				17			

Year 3 Semester 1				Semester 2			
Course		AU		Course		AU	
BG3102	Control in Biosystems	3		HE3021	Intermediate Econometrics	3	
BG3103	Signal Processing	3		ML0002	Career Power UP	1	
BG3104	Biomedical Imaging	3			Econs elective 2	3	
BG3105	Biomedical Instrumentation	3			Econs elective 3	3	
BG3801	Lab 3	1			Econs elective 4	3	
HE4010	Singapore Economy in a Globalized World	4			Econs elective 5	3	
ET0001	Entrepreneurship & Innovation	1			Free elective 1	2	
HW0288	Engineering Communication II	2					
20				Year 3 Special Semester			
				BG3720	Professional Attachment	4	
20				22			

Year 4 Semester1				Semester 2			
Course		AU		Course		AU	
BG4103	Biomedical Project Design & Management	4		BG4801	Final Year Project	4	
BG4801	Final Year Project	4		BG0491	Engineers & Society	3	
BG4102	Medical Device Design	3			BIE elective 2	3	
	BIE elective 1	3			BIE elective 3	3	
14				Free elective 2			
14				2			
14				15			

Year 5	Semester 1		Semester 2	
	Course	AU	Course	AU
	Econs elective 6	3	Econs elective 10	4
	Econs elective 7	3	Econs elective 11	4
	Econs elective 8	3	Econs elective 12	4
	Econs elective 9	3		
		12		12
			Total (AU)	176

B.Eng. (Bioengineering)
Suggested Study Plan for AY2014-2015 intake (CN Yang)
with Professional Internship (NEW)

Year 1 Semester 1			Year 1 Semester 2			
Course		AU	Course		AU	
CY1001	Introduction to Biology	4	CY1202	Calculus of Several Variables	4	
CY1101	Principles of Modern Chemistry	4	PE	CY1306	Electricity and Magnetism	3
CY1102	Experimental Chemistry & Biological Chemistry	3		CY1307	Relativity and Quantum Physics	3
			CY1400	CN Yang Scholars Programme Undergraduate Research Experience	3	
CY1201	Calculus of One Variable	4	CY1500	Introductory Research Methodology	3	
CY1305	Mechanics	3	BG1105	Materials Science	3	
	GER elective 1 (STS)	3	BG1109	Anatomy & Physiology	3	
GC0001	Introduction to Sustainability	1	ML0001	Absolute Basics for Career	1	
HW0188	Engineering Communication I	2				
		24			23	

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

Year 2 Semester 1			Year 2 Semester 2		
Course		AU	Course		AU
CY1203	Linear Algebra & Differential Equations	4	BG2109	Biomechanics	3
BG1101	Introduction to Biomedical Engineering	2	BG2110	Bioelectricity	3
BG1131	Molecular Cell Biology for Biomedical Engineers	4	BG2111	Computational Methods	4
BG2112	Cardiovascular Engineering	4	BG2142	Biological Thermodynamics	3
BG2131	Biomaterials	3	BG2802	Lab 2B	1
BG2141	Mechanics of Materials	3		GER elective 2 (BM)	3
HY0001	Ethics & Moral Reasoning	1		GER elective 3 (LA)	3
		23			20

Year 3 Semester 1			Year 3 Semester 2		
Course		AU	Course		AU
BG2104	Electronics for Biomedical Engineers	3	BG3820	Professional Internship	8
BG3102	Control in Biosystems	3	ML0002	Career Power UP	1
BG3103	Signal Processing in Biosystems	3			
BG3104	Biomedical Imaging	3			
BG3105	Biomedical Instrumentation	3			
BG3801	Bioengineering Lab 3	1			
ET0001	Entrepreneurship & Innovation	1			
HW0288	Engineering Communication II	2			
		19			9

Year 4 Semester 1			Year 4 Semester 2		
Course		AU	Course		AU
BG4103	Biomedical Project Design & Management	4	BG4801	Final Year Project	4
BG4801	Final Year Project	4	BG0491	Engineers & Society	3
BG4102	Medical Device Design	3		Free elective 1	3
	BIE PE 1	3			
		14			10

Total (AU) 140