

Single Degree (Single Major) Programmes

Programme	Year of Study	Number of Academic Units (AUs)								
		Major Requirements		General Education Requirement (GER)					Total	
Bioengineering (PI [®])	1	27/28 [^]		3					3	
	2	27		5					6	
	3	23	9	3	3	3			3	
	4	16		3					3	
	Total		93/94[^]	9	14	9			15	140/141[^]
Chemical & Biomolecular Engineering (PI [®])	1	29		6						
	2	31		2					6	
	3	22	9	6	3	3	3			
	4	11							9	
	Total		93	9	14	9			15	140

[^] For students who do not have "A" level Physics.

B.Eng. (Chemical & Biomolecular Engineering / Bioengineering) (ABP)

		Academic Units (AU)
University Requirement	General Education Requirement Core (GER-Core)	14
	Engineering Communication I (2 AU)	
	Engineering Communication II (2 AU)	
	Introduction to Sustainability: Multidisciplinary Approaches and Solutions (1 AU)	
	Ethics and Moral Reasoning (1 AU)	
	Enterprise and Innovation (1 AU)	
	Career Preparatory Course (1 AU)	
	Introduction to Data Science and Artificial Intelligence (3 AU)	
	Engineers & Society (3 AU)	
	General Education Requirement Elective (GER-Elective)	9
	GER-Elective in Business Management (3 AU)	
	GER-Elective in Science, Technology & Society (3 AU)	
	GER-Elective in Liberal Arts (3 AU)	
Major Requirement	CBE / BIE Core	93/94 [^]
	Major Prescribed Electives (Major PE)	9
Unrestricted Electives		15
Total AU requirement		140/141[^]

[^] For students who do not have "A" level Physics.

AU requirements for OEP, wef AY1617

OEP consists of 20AU with 10AU drawn from Core for Professional Internship and another 10AU that students can utilize from their Unrestricted Electives. To facilitate the credit transfer for OEP, Engineering students who take up the programme will have their degree requirements adjusted to move the 10AU of UE to Core. The tables below show the original and adjusted AU distribution for students taking OEP. There is no change in the total AU.

SINGLE DEGREE PROGRAMMES (PROFESSIONAL INTERNSHIP)

SCHOOL	PROGRAMME	MAJOR REQUIREMENTS			GENERAL EDUCATION REQUIREMENTS (GER)				TOTAL	
		CORE (C)	MAJOR PRESCRIBED ELECTIVE (PE)	GER-CORE (GC)	GER-PRESCRIBED ELECTIVE (GER-PE)			UNRESTRICTED ELECTIVE (UE)		
					BUSINESS & MANAGEMENT (BM)	LIBERAL ARTS (LA)	SCIENCE, TECHNOLOGY & SOCIETY (STS)			ANY CATEGORY (BM/LA/STS)
SCBE	BIE	103/104 [^]	9	14	3	3	3	0	5	140/141 [^]
	CBE	103	9	14	3	3	3	0	5	140

[^] For students who do not have "A" level Physics.

B.Eng. (Bioengineering)
Suggested Study Plan for AY2018-2019 intake ONWARDS
with Professional Internship

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	HW0188	Engineering Communication I	2
HW0001	English Proficiency*			GER elective 2	3
MH1810	Math 1	3		Free elective 1	3
PH1011	Physics	3			
	<i>or</i>				
PH1012	Physics A (^ For students without 'A' Level Physics)	4^			
	GER elective 1	3			
20/21^					19
<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
BG2211	Introduction to Computational Thinking	3	BG2109	Biomechanics	3
BG2131	Biomaterials	3	BG2110	Bioelectricity	3
BG2141	Mechanics of Materials	3	BG2142	Biological Thermodynamics	3
BG2104	Electronics for Biomedical Engineering	3	BG2802	Bioengineering Lab 2B	1
BG2801	Bioengineering Lab 2A	1	BG0494	Introduction to Data Science and Artificial Intelligence	3
				Free elective 2	3
HY0001	Ethics & Moral Reasoning	1		Free elective 3	3
ML0003	Career Preparatory Course	1			
	GER elective 3	3			
18					19
Year 3 Semester 1			Year 3 Semester 2		
Course		AU	Course		AU
BG2112	Cardiovascular Engineering	4	BG3880	Professional Internship	10
BG3102	Control in Biosystems	3			
BG3103	Signal Processing in Biosystems	3			
BG3104	Biomedical Imaging	3			
BG3105	Biomedical Instrumentation	3			
BG3801	Bioengineering Lab 3	1			
ET0001	Enterprise & Innovation	1			
HW0288	Engineering Communication II	2			
20					10
Year 4 Semester 1			Year 4 Semester 2		
Course		AU	Course		AU
BG4102	Medical Device Design	4	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
	Free elective 4	3		Free Elective 5	3
18					16
Total (AU)					140/141^

B.Eng. (Bioengineering)
Suggested Study Plan for AY2018-2019 intake ONWARDS (ABP)
with Professional Internship

Year 1 Semester 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	HW0188	Engineering Communication I	2
HW0001	English Proficiency*			GER elective 2	3
MH1810	Math 1	3		Free elective 1	3
PH1011	Physics	3			
	<i>or</i>				
PH1012	Physics A (^ For students without 'A' Level Physics)	4^			
	GER elective 1	3			
20/21^					19
<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			Semester 2		
Course		AU	Course		AU
BG2211	Introduction to Computational Thinking	3	BG2109	Biomechanics	3
BG2131	Biomaterials	3			
BG2141	Mechanics of Materials	3	BG2110	Bioelectricity	3
BG2104	Electronics for Biomedical Engineering	3	BG2142	Biological Thermodynamics	3
BG2801	Bioengineering Lab 2A	1	BG2802	Bioengineering Lab 2B	1
HY0001	Ethics & Moral Reasoning	1	BG0494	Introduction to Data Science and Artificial Intelligence	3
				Free elective 3	3
ML0003	Career Preparatory Course	1		Free elective 4	3
	GER elective 3	3		BIE PE 2	3
	Free elective 2	3		BIE PE 3	3
	BIE PE 1	3			
24					25
Year 3 Semester 1			Semester 2		
Course		AU	Course		AU
BG2112	Cardiovascular Engineering	4	BG3880	Professional Internship	10
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			
23					10
Year 4 Semester 1					
Course		AU			
BG0491	Engineers & Society	3			
BG4102	Medical Device Design	4			
BG4103	Biomedical Project Design & Management	4			
BG4801	Final Year Project	4			
ET0001	Enterprise & Innovation	1			
	Free elective 5	3			
19					Total (AU)
					140/141^

B.Eng. (Bioengineering)**Suggested Study Plan for AY2018-2019 intake (Direct entry)*****with Professional Internship*****Year 2 Semester 1**

Course	AU
BG1101 Introduction to Biomedical Engineering	2
BG1103 Chemistry for Engineers	3
BG1131 Molecular Cell Biology for Biomedical Engineers	4
BG2104 Electronics for Biomedical Engineering	3
BG2111 Introduction to Computational Thinking	4
BG2131 Biomaterials	3
BG2141 Mechanics of Materials	3
BG2801 Bioengineering Lab 2A	1
GC0001 Introduction to Sustainability	1
HW0001 English Proficiency*	

24**Year 2 Semester 2**

Course	AU
BG1109 Anatomy & Physiology	3
BG1117 Engineering Mathematics	4
BG2109 Biomechanics	3
BG2110 Bioelectricity	3
BG2142 Biological Thermodynamics	3
BG2802 Bioengineering Lab 2B	1
HW0188 Engineering Communication I	2
ML0001 Absolute Basics for Career	1

20

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

Year 3 Semester 1

Course	AU
BG2112 Cardiovascular Engineering	4
BG3102 Control in Biosystems	3
BG3103 Signal Processing	3
BG3104 Biomedical Imaging	3
BG3105 Biomedical Instrumentation	3
BG3801 Bioengineering Lab 3	1
HW0288 Engineering Communication II	2
HY0001 Ethics & Moral Reasoning	1
GER elective (Any)	3

23**Year 3 Semester 2**

Course	AU
BG3880 Professional Internship	10
ML0002 Career Power Up	1

11**Year 4 Semester 1**

Course	AU
BG4103 Biomedical Project Design & Management	4
BG4102 Medical Device Design	3
BG4801 Final Year Project	4
ET0001 Enterprise & Innovation	1
BIE elective 1	3
Free elective 1	3
Free elective 2	3

21**Year 4 Semester 2**

Course	AU
BG0491 Engineers & Society	3
BG4801 Final Year Project	4
BIE elective 2	3
BIE elective 3	3

13**Total (AU)****112**

2nd Major Business (PI Option)

		Academic Units (AU)
University Requirement	General Education Requirement Core (GER-Core)	14
	Engineering Communication I (2 AU)	
	Engineering Communication II (2 AU)	
	Career Preparatory Course (1 AU)	
	Introduction to Data Science and Artificial Intelligence (3 AU)	
	Engineers & Society (3 AU)	
	Introduction to Sustainability; Multidisciplinary Approaches and Solutions (1 AU)	
	Enterprise & 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 Arts (3 AU)	
BIE Core	93/94*	
Major Prescribed Electives (Major PE)	9	
2nd Major in Business	Business Foundation Courses	20
	Track Courses	12
Total AU requirement		148/149*

B.Eng. (Bioengineering)
Suggested Study Plan for AY2018-2019 intake (BM)
with Professional Internship

Year 1 Semester 1

Course	AU
BG1101 Introduction to Biomedical Engineering	2
BG1103 Chemistry for Engineers	3
BG1801 Bioengineering Lab 1A	1
AD1101 Financial Accounting	4
AB1201 Financial Management	3
MH1810 Math 1	3
PH1011 Physics	3
or	
PH1012 Physics A (^ For students without A-Level Physics)	4^
GC0001 Introduction to Sustainability	1
HW0001 English Proficiency*	

20/21^

20

* 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
BG2211 Introduction to Computational Thinking	3
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
AB1301 Business Law	3
HY0001 Ethics and Moral Reasoning	1
ML0003 Career Preparatory Course	1

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Year 3 Semester 1

Course	AU
BG2112 Cardiovascular Engineering	4
BG3102 Control in Biosystems	3
BG3103 Signal Processing in Biosystems	3
BG3104 Biomedical Imaging	3
BG3105 Biomedical Instrumentation	3
BG3801 Bioengineering Lab 3	1
ET0001 Enterprise & Innovation	1
HW0288 Engineering Communication II	2
BIE PE 1	3

23

Year 4 Semester 1

Course	AU
BG4103 Biomedical Project Design & Management	4
BG4102 Medical Device Design	4
BG4801 Final Year Project	4
BIE PE 2	3
Track Course 1	4
Track Course 2	4

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
AB1501 Marketing	3
BE1401 Business Operations and Processes	4
HW0188 Engineering Communication I	2

Year 2 Semester 2

Course	AU
BG2109 Biomechanics	3
BG2142 Biological Thermodynamics	3
BG2110 Bioelectricity	3
BG2802 Bioengineering Lab 2B	1
AB1601 Organisational Behaviour and Design	3
BG0494 Introduction to Data Science and Artificial Intelligence	3

16

Year 3 Semester 2

Course	AU
BG3880 Professional Internship	10

10

Year 4 Semester 2

Course	AU
BG4801 Final Year Project	4
BG0491 Engineers & Society	3
BIE PE 3	3
Track Course 3	4

14

Total (AU)

148/149^

2nd Major Business (PA Option)

		Academic Units (AU)
University Requirement	General Education Requirement Core (GER-Core)	14
	Engineering Communication I (2 AU)	
	Engineering Communication II (2 AU)	
	Career Preparatory Course (1 AU)	
	Introduction to Data Science and Artificial Intelligence (3 AU)	
	Engineers & Society (3 AU)	
	Introduction to Sustainability; Multidisciplinary Approaches and Solutions (1 AU)	
	Enterprise & 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 Arts (3 AU)		
BIE Core	88/89 [^]	
Major Prescribed Electives (Major PE)	9	
2nd Major in Business	Business Foundation Courses	20
	Track Courses	12
Unrestricted Electives	Unrestricted Electives	5
Total AU requirement		148/149 [^]

[^] For students who do not have "A" level Physics.

B.Eng. (Bioengineering)
Suggested Study Plan for AY2018-2019 intake (BM)
with Professional Attachment

Year 1 Semester 1

Course	AU
BG1101 Introduction to Biomedical Engineering	2
BG1103 Chemistry for Engineers	3
BG1801 Bioengineering Lab 1A	1
AD1101 Financial Accounting	4
AB1201 Financial Management	3
MH1810 Math 1	3
PH1011 Physics	3
or	
PH1012 Physics A (^ For students without A-Level Physics)	4^
GC0001 Introduction to Sustainability	1
HW0001 English Proficiency*	

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
HW0188 Engineering Communication I	2

20/21^

20

* 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
BG2211 Introduction to Computational Thinking	3
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
AB1301 Business Law	3
HY0001 Ethics and Moral Reasoning	1
ML0003 Career Preparatory Course	1

22

Year 2 Semester 2

Course	AU
BG2109 Biomechanics	3
BG2142 Biological Thermodynamics	3
BG2110 Bioelectricity	3
BG2802 Bioengineering Lab 2B	1
AB1601 Organisational Behaviour and Design	3
BG0494 Introduction to Data Science and Artificial Intelligence	3

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Year 3 Semester 1

Course	AU
BG2112 Cardiovascular Engineering	4
BG3102 Control in Biosystems	3
BG3103 Signal Processing in Biosystems	3
BG3104 Biomedical Imaging	3
BG3105 Biomedical Instrumentation	3
BG3801 Bioengineering Lab 3	1
ET0001 Enterprise & Innovation	1
HW0288 Engineering Communication II	2

20

Year 3 Semester 2

Course	AU
BG0491 Engineers & Society	3
BIE PE 21	3
BIE PE 2	3
Free elective 1	3
Free elective 2	2

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Year 3 Special Semester

BG3885 Professional Attachment	5
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Year 4 Semester 1

Course	AU
BG4103 Biomedical Project Design & Management	4
BG4102 Medical Device Design	4
BG4801 Final Year Project	4
BIE PE 3	3
Track Course 1	4

19

Year 4 Semester 2

Course	AU
BG4801 Final Year Project	4
Track Course 2	4
Track Course 3	4

12

Total (AU)

148/149^

2nd Major Business ITP Track (PI Option)

		Academic Units (AU)
University Requirement	General Education Requirement Core (GER-Core)	14
	Engineering Communication I (2 AU)	
	Engineering Communication II (2 AU)	
	Career Preparatory Course (1 AU)	
	Introduction to Data Science and Artificial Intelligence (3 AU)	
	Engineers & Society (3 AU)	
	Introduction to Sustainability; Multidisciplinary Approaches and Solutions (1 AU)	
	Enterprise & 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 Arts (3 AU)		
BIE Core	93/94 [^]	
Major Prescribed Electives (Major PE)	9	
2nd Major in Business	Business Foundation Courses	14
	Track Courses	16
Total AU requirement		146/147 [^]

[^] For students who do not have "A" level Physics.

B.Eng. (Bioengineering)
Suggested Study Plan for AY2018-2019 intake (BM ITP Track)
with Professional Internship

Year 1 Semester 1			Year 1 Semester 2		
Course		AU	Course		AU
BG1101	Introduction to Biomedical Engineering	2	BG1105	Materials Science	3
MH1810	Math 1	3	BG1117	Engineering Mathematics	4
PH1011	Physics	3	BG1109	Anatomy and Physiology	3
	or		BG1802	Bioengineering Lab 1B	1
PH1012	Physics A (^ For students without A-Level Physics)	4^	HW0188	Engineering Communication I	2
BG1103	Chemistry for Engineers	3	AB1501	Marketing	3
BG1801	Bioengineering Lab 1A	1	BE1401	Business Operations and Processes	4
AD1101	Financial Accounting	4			
AB1201	Financial Management	3			
HW001	English Proficiency*				
GC0001	Introduction to Sustainability	1			
		20/21^			20
* 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
BG2211	Introduction to Computational Thinking	3	BG2109	Biomechanics	3
BG2131	Biomaterials	3	BG2142	Biological Thermodynamics	3
BG2141	Mechanics of Materials	3	BG2110	Bioelectricity	3
BG2104	Electronics for Biomedical Eng	3	BG2802	Bioengineering Lab 2B	1
BG2801	Lab 2A	1	BG0494	Introduction to Data Science and Artificial Intelligence	3
BG1131	Molecular Cell Biology for Biomedical Engineers	4		BIE PE 1	3
BF2217	Commodity Markets	3	BF3213	Enterprise Risk Management	2
ML0003	Career Preparatory Course	1	BF4001	Industry Seminar	1
HY0001	Ethics & Moral Reasoning	1			
		22			19
Year 3 Semester 1			Year 3 Semester 2		
Course		AU	Course		AU
BG2112	Cardiovascular Engineering	4	BG3880	Professional Internship	10
BG3102	Control in Biosystems	3			
BG3103	Signal Processing in Biosystems	3			
BG3104	Biomedical Imaging	3			
BG3105	Biomedical Instrumentation	3			
BG3801	Bioengineering Lab 3	1			
BF2216	Trade Incoterms & Ship Chartering	4			
ET0001	Enterprise & Innovation	1			
HW0288	Engineering Communication II	2			
		24			10
Year 4 Semester 1			Year 4 Semester 2		
Course		AU	Course		AU
BG4101	Biomedical Project Design & Management	4	BG4801	Final Year Project	4
BG4801	Final Year Project	4	BG0491	Engineers & Society	3
BG4102	Medical Device Design	4		BIE PE 3	3
BF2302	International Tax and Trading Law	2	BF3212	Trade, Structured & Supplu Chain Finance	2
	BIE PE 2	3	BF3213	Enterprise Risk Management	2
		17			14
Total (AU)					146/147^

2nd Major Business ITP Track (PA)

		Academic Units (AU)
University Requirement	General Education Requirement Core (GER-Core)	14
	Engineering Communication I (2 AU)	
	Engineering Communication II (2 AU)	
	Career Preparatory Course (1 AU)	
	Introduction to Data Science and Artificial Intelligence (3 AU)	
	Engineers & Society (3 AU)	
	Introduction to Sustainability; Multidisciplinary Approaches and Solutions (1 AU)	
	Enterprise & 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 Arts (3 AU)		
BIE Core	88/89 [^]	
Major Prescribed Electives (Major PE)	9	
2nd Major in Business	Business Foundation Courses	14
	Track Courses	16
Unrestricted Electives	Unrestricted Electives	5
Total AU requirement		146/147 [^]

[^] For students who do not have "A" level Physics.

B.Eng. (Bioengineering)
Suggested Study Plan for AY2018-2019 intake (BM ITP Track)
with Professional Attachment

Year 1 Semester 1			Year 1 Semester 2		
Course		AU	Course		AU
BG1101	Introduction to Biomedical Engineering	2	BG1105	Materials Science	3
MH1810	Math 1	3	BG1117	Engineering Mathematics	4
PH1011	Physics	3	BG1109	Anatomy and Physiology	3
	or		BG1802	Bioengineering Lab 1B	1
PH1012	Physics A (^ For students without A-Level Physics)	4^	AB1501	Marketing	3
BG1103	Chemistry for Engineers	3	BE1401	Business Operations and Processes	4
BG1801	Bioengineering Lab 1A	1	HW0188	Engineering Communication I	2
AD1101	Financial Accounting	4			
AB1201	Financial Management	3			
HW001	English Proficiency*				
GC0001	Introduction to Sustainability	1			
		20/21^			20
* 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
BG2211	Introduction to Computational Thinking	3	BG2109	Biomechanics	3
BG2131	Biomaterials	3	BG2142	Biological Thermodynamics	3
BG2141	Mechanics of Materials	3	BG2110	Bioelectricity	3
BG2104	Electronics for Biomedical Eng	3	BG2802	Bioengineering Lab 2B	1
BG2801	Lab 2A	1	BG0494	Introduction to Data Science and Artificial Intelligence	3
BG1131	Molecular Cell Biology for Biomedical Engineers	4	BF3214	Commodities Trading	2
BF2217	Commodity Markets	3		Unrestricted Electives	5
ML0003	Career Preparatory Course	1			
HY0001	Ethics & Moral Reasoning	1			
		22			20
Year 3 Semester 1			Year 3 Semester 2		
Course		AU	Course		AU
BG2112	Cardiovascular Engineering	4	BF3213	Enterprise Risk Management	2
BG3102	Control in Biosystems	3	BF4001	Industry Seminar	1
BG3103	Signal Processing in Biosystems	3	BG0491	Engineers & Society	3
BG3104	Biomedical Imaging	3		BIE PE 1	3
BG3105	Biomedical Instrumentation	3		BIE PE 2	3
BG3801	Bioengineering Lab 3	1			
BF2216	Trade Incoterms & Ship Chartering	4			
ET0001	Enterprise & Innovation	1			
HW0288	Engineering Communication II	2			
		24			17
Year 4 Semester 1			Year 4 Semester 2		
Course		AU	Course		AU
BG4102	Medical Device Design	4	BG4801	Final Year Project	4
BG4101	Biomedical Project Design & Management	4		BIE PE 3	3
BG4801	Final Year Project	4	BF3212	Trade, Structured & Supply Chain Finance	2
BF2302	International Tax and Trading Law	2			
		14			9
Total (AU)					146/147^

BEng (Bioengineering) Hons with 2nd Major in Food Science & Technology AY 2018/2019 onwards

FST (PI Option)

Curriculum Structure		Academic Unit (AU) Requirement		
		BEng Hons with 2 nd major in Food Science & Technology	BEng Hons	
Core		93/94 [^]	93/94 [^]	
Major Prescribed Elective (Major PE)		9	9	
General Education Requirement (GER)	Core	14	14	
	Prescribed Elective (PE)	Liberal Arts (LA)	3	3
		Business & Management (BM)		3
		Science, Technology & Society (STS)	0 [#]	3
	Unrestricted Electives (UE)	UE	0	15
		Food Science and Technology (Core)	18	NA
Food Science and Technology (PE)		15	NA	
Total AUs		152/153[^]	140/141[^]	

[^] For students who do not have "A" level Physics.

FST (PA Option)

Curriculum Structure		Academic Unit (AU) Requirement		
		BEng Hons with 2 nd Major in Food Science and Technology		
Core		88/89 [^]		
Major Prescribed Elective (Major PE)		9		
General Education Requirement (GER)	Core	14		
	Prescribed Elective (PE)	Liberal Arts (LA)	3	
		Business & Management (BM)		
		Science, Technology & Society (STS)	0 [#]	
	Unrestricted Electives (UE)	UE	5	
		Food Science and Technology (Core)	18	
Food Science and Technology (PE)		15		
Total AUs		152/153[^]		

[^] For students who do not have "A" level Physics.

[#] CH9200 Food Microbiology will be used to satisfy the requirement of PE-STS.

B.Eng. (Bioengineering)
Suggested Study Plan for AY2018-2019 intake (FST)
with Professional Internship

Year 1 Semester 1

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*	
MH1810 Math 1	3
PH1011 Physics	3
<i>or</i>	
PH1012 Physics A (^ For students without 'A' Level Physics)	4^

Year 1 Semester 2

Course	AU
BG1105 Materials Science	3
BG1109 Anatomy and Physiology	3
BG1117 Engineering Mathematics	4
BG1802 Bioengineering Lab 1B	1
HW0188 Engineering Communication I	2
GERPE (BM/LA)	3

17/18^

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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
BG2211 Introduction to Computational Thinking	3
BG2131 Biomaterials	3
BG2141 Mechanics of Materials	3
BG2104 Electronics for Biomedical Engineering	3
BG2801 Bioengineering Lab 2A	1
CH9201 Food Chemistry	5
HY0001 Ethics & Moral Reasoning	1
ML0003 Career Preparatory Course	1
GER-UE (FST)	3

Year 2 Semester 2

Course	AU
BG2109 Biomechanics	3
BG2110 Bioelectricity	3
BG2142 Biological Thermodynamics	3
BG2802 Bioengineering Lab 2B	1
CH9200 Food Microbiology	3
BG0494 Introduction to Data Science and Artificial Intelligence	3
GER-UE (FST)	3
GER-UE (FST)	3

23

22

Year 3 Semester 1

Course	AU
BG2112 Cardiovascular Engineering	4
BG3102 Control in Biosystems	3
BG3103 Signal Processing in Biosystems	3
BG3104 Biomedical Imaging	3
BG3105 Biomedical Instrumentation	3
BG3801 Bioengineering Lab 3	1
CH9203 Food Process Engineering	5
ET0001 Enterprise & Innovation	1
HW0288 Engineering Communication II	2

Year 3 Semester 2

Course	AU
BG3880 Professional Internship	10

25

10

Year 4 Semester 1

Course	AU
BG4102 Medical Device Design	4
BG4103 Biomedical Project Design & Management	4
BG4801 Final Year Project	4
BIE PE 1	3
GER-UE (FST)	3
BIE PE 2	3

Year 4 Semester 2

Course	AU
CH9202 Food Physics	3
BG4801 Final Year Project	4
CH9204 Quality Systems Operations	2
BG0491 Engineers and Society	3
BIE PE 3	3
GER UE (FST)	3

21

18

Total (AU)

152/153^

B.Eng. (Bioengineering)
Suggested Study Plan for AY2018-2019 intake (FST)
with Professional Attachment

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	HW0188	Engineering Communication I	2
HW0001	English Proficiency*			Free elective 1	3
MH1810	Math 1	3			
PH1011	Physics	3			
	<i>or</i>				
PH1012	Physics A (^ For students without 'A' Level Physics)	4^			
		17/18^			16
*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
BG2211	Introduction to Computational Thinking	3	BG2109	Biomechanics	3
BG2131	Biomaterials	3	BG2110	Bioelectricity	3
BG2141	Mechanics of Materials	3	BG2142	Biological Thermodynamics	3
BG2104	Electronics for Biomedical Engineering	3	BG2802	Bioengineering Lab 2B	1
BG2801	Bioengineering Lab 2A	1	CH9200	Food Microbiology	3
CH9201	Food Chemistry	5	BG0494	Introduction to Data Science and Artificial Intelligence	3
HY0001	Ethics & Moral Reasoning	1		GER-UE (FST)	3
	GER-UE (FST)	3		GER-UE (FST)	3
ML0003	Career Preparatory Course	1			
		23			22
Year 3 Semester 1			Year 3 Semester 2		
Course		AU	Course		AU
BG2112	Cardiovascular Engineering	4	CH9202	Food Physics	3
BG3102	Control in Biosystems	3	CH9204	Quality Systems Operations	2
BG3103	Signal Processing in Biosystems	3		BIE elective 1	3
BG3104	Biomedical Imaging	3		BIE elective 2	3
BG3105	Biomedical Instrumentation	3	<hr/>		
BG3801	Bioengineering Lab 3	1	Year 3 Special Semester		
CH9203	Food Process Engineering	5	BG3885	Professional Attachment	5
ET0001	Enterprise & Innovation	1			
HW0288	Engineering Communication II	2			
		25			16
Year 4 Semester 1			Year 4 Semester 2		
Course		AU	Course		AU
BG4102	Medical Device Design	4	BG4801	Final Year Project	4
BG4103	Biomedical Project Design & Management	4		GER-UE (FST)	3
BG4801	Final Year Project	4		Free elective 2	2
	GERPE (BM/LA)	3			
	GER-UE (FST)	3	BG0491	Engineers and Society	3
	BIE elective 3	3			
		21			12
Total (AU)					152/153^

B.Eng (Hons) in Bioengineering with 2nd Major in Pharmaceutical Engineering

Table 1: Compulsory Courses for Second Major in Pharmaceutical Engineering

Course Code	Course Title	AU
CH1104	Materials & Energy Balance	4
CH2114	Heat & Mass Transfer	3
CH2112	Chemical Reaction Engineering	3
CH3141	Advanced Unit Operations	3
CH3111	Process Control and Dynamics	3
CH4303	Bioseparations	3
CH4213	Pharmacokinetics & Biopharmaceutics	3
CH3802	Chem Eng Lab	3
CH4305	Special topics in Biotechnology	3
CH4306	Bioanalytical Techniques	3
CH4106	Formulation of Active Pharmaceutical Ingredients Dosage Forms	3
Total		34

Academic Unit (AU) Requirement		A	B	C	
Programme		SDP (With PI)	SECOND MAJOR		
			PE MODEL		
		(With PI)	(With PI)	(With PA)	
Core & Major Prescribed Elective (Major PE)*		102/103 [^]	102/103 [^]	97/98 [^]	
General Education Requirement (GER)	Core	14	14	14	
	Prescribed Elective (PE)	BM	3	3	3
		LA	3		
		STS	3	0	0
	Unrestricted Electives (UE)	UE	15	0	5
UE (2nd Major)		N.A.	34	34	
Total AUs		140/141[^]	153/154[^]	153/154[^]	

[^] For students who do not have "A" level Physics.

B.Eng. (Bioengineering) with 2nd Major in Pharmaceutical Engineering
Suggested Study Plan for AY2018-2019 intake ONWARDS *with Professional Internship*

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	Engineering Lab 1B	1
GC0001	Introduction to Sustainability	1		GER-PE 1 (BM/LA)	3
HW0001	English Proficiency*		HW0188	Engineering Communication I	2
MH1810	Maths 1	3			
PH1011	Physics <i>Or</i> Physics A (^ For students without 'A')	3			
PH1012	Level Physics	4 [^]			
17/18[^]					16
<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
BG2211	Introduction to Computational Thinking	3	BG2109	Biomechanics	3
BG2131	Biomaterials	3	BG2110	Bioelectricity	3
BG2141	Mechanics of Materials	3	BG2142	Biological Thermodynamics	3
BG2104	Electronics for Biomedical Engineers	3	BG2802	Engineering Lab 2B	1
BG2801	Bioengineering Lab 2A	1	CH2114	Heat & Mass Transfer	3
BG2112	Cardiovascular Engineering	4	CH2112	Chemical Reaction Engineering	3
ML0003	Career Preparatory Course	1	CH3141	Advanced Unit Operations	3
HY0001	Ethics & Moral Reasoning	1	BG0494	Introduction to Data Science and Artificial Intelligence	3
CH1104	Materials & Energy Balance	4			
23					22
Year 3 Semester 1			Year 3 Semester 2		
Course		AU	Course		AU
BG3102	Control in Biosystems	3	BG3880	Professional Internship	10
BG3103	Signal Processing in Biosystems	3			
BG3104	Biomedical Imaging	3			
BG3105	Biomedical Instrumentation	3			
BG3801	Bioengineering Lab 3	1			
CH3111	Process Control and Dynamics	3			
ET0001	Enterprise & Innovation	1			
HW0288	Engineering Communication II	2			
19					10
Year 4 Semester 1			Year 4 Semester 2		
Course		AU	Course		AU
BG4102	Medical Device Design Biomedical Project Design & Management	4	BG0491	Engineers & Society	3
BG4103		4	BG4801	Final Year Project	4
BG4801	Final Year Project	4	CH4213	Pharmacokinetics & Biopharmaceutics	3
CH4306	Bioanalytical Techniques Formulation of Active Pharmaceutical	3	CH4305	Special Topics in Biotechnology	3
CH4106	Ingredients Dosage Forms	3	CH4303	Bioseparations	3
	BIE PE 1	3		BIE PE 2	3
CH3802	Chem Eng Lab 5	3		BIE PE 3	3
24					22
Total (AU)					153/154[^]

B.Eng. (Bioengineering) with 2nd Major in Pharmaceutical Engineering

Suggested Study Plan for AY2018-2019 intake ONWARDS with Professional Attachment

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	Engineering Lab 1B	1
GC0001	Introduction to Sustainability	1	HW0188	Engineering Communication I	2
HW0001	English Proficiency*			GER PE 1 (BM/LA)	3
MH1810	Maths 1	3			
PH1011	Physics <u>Or</u> Physics A (^ For students without 'A'	3			
PH1012	Level Physics	4^			
					16
<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
BG2211	Introduction to Computational Thinking	3	BG2109	Biomechanics	3
BG2131	Biomaterials	3	BG2110	Bioelectricity	3
BG2141	Mechanics of Materials	3	BG2142	Biological Thermodynamics	3
BG2104	Electronics for Biomedical Engineers	3	BG2802	Engineering Lab 2B	1
BG2801	Bioengineering Lab 2A	1	CH2114	Heat & Mass Transfer	3
BG2112	Cardiovascular Engineering	4	CH2112	Chemical Reaction Engineering	3
ML0003	Career Preparatory Course	1	CH3141	Advanced Unit Ops Introduction to Data Science and Artificial	3
HY0001	Ethics & Moral Reasoning	1	BG0494	Intelligence	3
CH1104	Materials & Energy Balance	4			
					22
Year 3 Semester 1			Year 3 Semester 2		
Course		AU	Course		AU
BG3102	Control in Biosystems	3		Free Elective 1	2
BG3103	Signal Processing in Biosystems	3		Free Elective 2	3
BG3104	Biomedical Imaging	3	BG0491	Engineers & Society	3
BG3105	Biomedical Instrumentation	3	CH4213	Pharmacokinetics & Biopharmaceutics	3
BG3801	Bioengineering Lab 3	1	CH4305	Special Topics in Biotechnology	3
CH3111	Process Control and Dynamics	3			
ET0001	Enterprise & Innovation	1	Year 3 Special Semester		
HW0288	Engineering Communication II	2	BG3885	Professional Attachment	5
					19
Year 4 Semester 1			Year 4 Semester 2		
Course		AU	Course		AU
BG4102	Medical Device Design	4	BG4801	Final Year Project	4
BG4103	Biomedical Project Design & Management	4	CH4303	Bioseparations	3
BG4801	Final Year Project	4		BIE PE 2	3
CH4306	Bioanalytical Techniques	3		BIE PE 3	3
CH4106	Formulation of Active Pharmaceutical Ingredients Dosage Forms	3			
	BIE PE 1	3			
CH3802	Chem Eng Lab	3			
					13
					153/154^
					Total (AU)

BIE

Course Type	AU Required
Core Courses	112
Major Prescribed Electives	3
GER-Core	17
GERPE	0
Unrestricted Electives	10
Total	142

B.Eng. (Bioengineering)					
Suggested Study Plan for AY18-19 intake (CN Yang)					
<u>with Professional Attachment</u>					
Year 1 Semester 1			Year 1 Semester 2		
Course		AU	Course		AU
CY1001	Introduction to Biology	3	CY1007	Climate Change	3
CY1101	Principles of Modern Chemistry	3	CY1307	Relativity and Quantum Physics	3
CY1308	Physics	3	CY1400	CN Yang Scholars Programme Undergraduate Research Experience	3
CY1500	Introductory Research Methodology	3	CY1602	Mathematics II	4
CY1601	Mathematics I	4	BG1105	Materials Science	3
BG1101	Introduction to Biomedical Engineering	2	BG1109	Anatomy & Physiology	3
GC0001	Introduction to Sustainability	1	Year 1 Special Term		AU
HW0001	English Proficiency*		CY2003	Research Attachment 3 (Making & Tinkering) Overseas Learning Trip	4
		19			23
<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
BG1131	Biomolecular Engineering	4	BG2109	Biomechanics	3
BG2211	Introduction to Computational Thinking	3	BG2110	Bioelectricity	3
BG2131	Biomaterials	3	BG2142	Biological Thermodynamics	3
BG2141	Mechanics of Materials	3	BG2802	Bioengineering Lab 2B	1
BG2801	Bioengineering Lab 2A	1	CY0002	Ethics	3
CH2106	Introduction to Multidisciplinary Engineering	2		Free elective 1	3
CY0001	Writing & Reasoning	3	BG0494	Introduction to Data Science and Artificial Intelligence	3
CY2001	Research Attachment I	4	ML0003	Career Preparatory Course	1
		23			20
Year 3 Semester 1			Year 3 Semester 2		
Course		AU	Course		AU
BG2104	Electronics for Biomedical Engineers	3	BG4211	CNYSP Overseas Final Year Project	8
BG2112	Cardiovascular Engineering	4			
BG3102	Control in Biosystems	3			
BG3103	Signal Processing in Biosystems	3			
BG3104	Biomedical Imaging	3			
BG3105	Biomedical Instrumentation	3			
BG3801	Lab 3	1	Year 3 Special Terms		AU
CY0006	Enterprise, Innovation and Leadership	3	BG3885	Professional Attachment	5
		23			13
Year 4 Semester 1			Year 4 Semester 2		
Course		AU	Course		AU
BG4102	Medical Device Design	4		Free Elective 3	3
BG4103	Biomedical Project Design and Management	4		Free Elective 4	1
	BIE PE 1	3			
BG0491	Engineers & Society	3			
	Free elective 2	3			
		17			4
Total (AU)					142

USP**BIE**

Course Type	AU Required (new)
Core Courses	93/ 94^
Major Prescribed Electives	9
USP Core	12
GER-Core	10
GER-PE –BM	0
GER-PE –STS	0
GER-PE –LA	0
GER-PE – Any Category	0
USP Electives	15
Unrestricted Electives	3
Total	142/143^

^ For students who do not have "A" level Physics.

B.Eng. (Bioengineering)

Suggested Study Plan for AY2018-2019 intake (USP) with Professional Internship

Year 1 Semester 1			Year 1 Semester 2		
Course		AU	Course		AU
MH1810	Math 1	3	BG1105	Materials Science	3
BG1101	Introduction to Biomedical Engineering	2	BG1117	Engineering Mathematics	4
BG1103	Chemistry for Engineers	3	BG1109	Anatomy and Physiology	3
BG1131	Molecular Cell Biology for Biomedical Engineers	4	BG1802	Bioengineering Lab 2	1
BG1801	Bioengineering Lab 1	1	SP0002	Ethics	3
SP0001	Writing and Reasoning	3	SP0007	Fieldwork and Documentation	3
SP0005	Quantitative Reasoning	3			
GC0001	Introduction to Sustainability	1			
HW0001	English Proficiency*				
PH1011	Physics or	3			
PH1012	Physics A (^ For Students without A-Level Physics)	4^			
		23/24^			17
*For students who have not passed or been exempted from the Qualifying English Test at admission.					
Year 2 Semester 1			Year 2 Semester 2		
Course		AU	Course		AU
BG2211	Introduction to Computational Thinking	3	BG2109	Biomechanics	3
BG2131	Biomaterials	3	BG2142	Biological Thermodynamics	3
BG2141	Mechanics of Materials	3	BG2110	Bioelectricity	3
BG2104	Electronics for Biomedical Eng	3	BG2802	Bioengineering Lab 2B	1
BG2801	Lab 2A	1	BG0494	Introduction to Data Science and Artificial Intelligence	3
ML0003	Career Preparatory Course	1		USP Elective 2	3
HY0001	Ethics & Moral Reasoning	1		BIE PE 1	3
	USP Elective 1	3		Free Elective 1	3
		18			22
Year 3 Semester 1			Year 3 Semester 2		
Course		AU	Course		AU
BG2112	Cardiovascular Engineering	4	BG3880	Professional Internship	10
BG3102	Control in Biosystems	3			
BG3103	Signal Processing in Biosystems	3			
BG3104	Biomedical Imaging	3			
BG3105	Biomedical Instrumentation	3			
BG3801	Bioengineering Lab 3	1			
ET0001	Enterprise & Innovation	1			
	USP Elective 3	3			
	USP Elective 4	3			
		24			10
Year 4 Semester 1			Year 4 Semester 2		
Course		AU	Course		AU
BG4103	Biomedical Project Design & Management	4	BG4801	Final Year Project	4
BG4102	Medical Device Design	4	BG0491	Engineers & Society	3
BG4801	Final Year Project	4		BIE PE 3	3
	BIE PE 2	3			
	USP Elective 5	3			
		18			10
Total (AU)					142/143^

BEEC (PI Option)

Category		AU	
Core		93	141
Major Prescribed	BIE	9	
Electives (Major PE)	Economics	39	
GER Core		14	14
GER Elective		0	
Free Elective (Economics <Core>)		25	
Total		180	

BEEC (PA Option)

Category		AU	
Core		88	136
Major Prescribed	BIE	9	
Electives (Major PE)	Economics	39	
GER Core		14	19
GER Elective		5	
Free Elective (Economics <Core>)		25	
Total		180	

Double Degree in Engineering and Economics
B.Eng. (Bioengineering) and B.Arts (Economics)
Suggested Study Plan for AY2018-2019 intake
with Professional Internship

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			
	HW001	English Proficiency*				
	GC0001	Introduction to Sustainability	1			
			23			19

* 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
	BG2211	Introduction to Computational Thinking	3	BG2110	Bioelectricity	3
	BG2131	Biomaterials	3	BG2142	Biological Thermodynamics	3
	BG2141	Mechanics of Materials	3	BG2802	Lab 2B	1
	BG2801	Lab 2A	1	HE3021	Intermediate Econometrics	3
	HE2005	Principles of Econometrics	3	HE2002	Intermediate Macroeconomics	3
	ML0003	Career Preparatory Course	1	BG0494	Introduction to Data Science and Artificial Intelligence	3
	HY0001	Ethics & Moral Reasoning	1		Econs elective 1	3
			18			22

Year 3	Semester 1		Semester 2			
	Course	AU	Course	AU		
	BG2112	Cardiovascular Engineering	4	BG3880	Professional Internship	10
	BG3102	Control in Biosystems	3			
	BG3103	Signal Processing	3			
	BG3104	Biomedical Imaging	3			
	BG3105	Biomedical Instrumentation	3			
	BG3801	Lab 3	1			
	HE4010	Singapore Economy in a Globalized World	4			
	ET0001	Enterprise & Innovation	1			
	HW0288	Engineering Communication II	2			
			24			10

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	4		BIE elective 2	3
		BIE elective 1	3		BIE elective 3	3
		Econs elective 2	3		Econs elective 3	3
					Econs elective 4	3
			18			19

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

Semester 2

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

Total (AU) 180

Double Degree in Engineering and Economics
B.Eng. (Bioengineering) and B.Arts (Economics)
Suggested Study Plan for AY2018-2019 intake
with Professional Attachment

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			
HW001	English Proficiency*				
GC0001	Introduction to Sustainability	1			
		23			19
* 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
BG2211	Introduction to Computational Thinking	3	BG2110	Bioelectricity	3
BG2131	Biomaterials	3	BG2142	Biological Thermodynamics	3
BG2141	Mechanics of Materials	3	BG2802	Lab 2B	1
BG2801	Lab 2A	1	HE2002	Intermediate Macroeconomics	3
HE2005	Principles of Econometrics	3		Econs elective 2	3
ML0003	Career Preparatory Course	1		Introduction to Data Science and Artificial Intelligence	3
HY0001	Ethics & Moral Reasoning	1	BG0494		
	Econs elective 1	3			
		21			19
Year 3 Semester 1			Semester 2		
Course		AU	Course		AU
BG2112	Cardiovascular Engineering	4	HE3021	Intermediate Econometrics	3
BG3102	Control in Biosystems	3		Econs elective 3	3
BG3103	Signal Processing	3		Econs elective 4	3
BG3104	Biomedical Imaging	3		Econs elective 5	3
BG3105	Biomedical Instrumentation	3		Free elective 1	3
BG3801	Lab 3	1			
HE4010	Singapore Economy in a Globalized World	4			
ET0001	Enterprise & Innovation	1			
HW0288	Engineering Communication II	2			
		24			
Year 4 Semester 1			Year 3 Special Semester		
Course		AU	Course		AU
BG4103	Biomedical Project Design & Management	4	BG3885	Professional Attachment	5
BG4801	Final Year Project	4			
BG4102	Medical Device Design	4			
	BIE elective 1	3			
		15			20
Year 4 Semester 2			Semester 2		
Course		AU	Course		AU
BG4801	Final Year Project	4	BG4801	Final Year Project	4
BG0491	Engineers & Society	3	BG0491	Engineers & Society	3
				BIE elective 2	3
				BIE elective 3	3
				Free elective 2	2
		15			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)	180