

**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			
		<b>22/23*</b>			<b>18</b>
<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
		<b>18</b>			<b>20</b>
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			
		<b>19</b>			<b>9</b>
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
		<b>14</b>		Free Elective 5	3
					<b>16</b>
<b>Total (AU)</b>					<b>136/ 137*</b>

**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

**18**

**Total (AU)**

**136/  
137\***