

**COHORT 2017/2018**  
**Bachelor of Engineering (Biomedical Engineering)**

**Recommended Semester Schedule for Biomedical Engineering Students**

A) RfP Pathway

<b>Semester 1</b>		<b>Semester 2</b>	
CS1010E Programming Methodology	4	MA1512 Differential Equations for Engineering	2
CM1501 Organic Chemistry for Engineers	4	MA1513 Linear Algebra with Differential Equations	2
PC1221 Fundamentals of Physics I (UE1)	4	GER1000 Quantitative Reasoning (GE 1)	4
MA1511 Engineering Calculus	2	PC1222 Fundamentals of Physics II (UE 2)	4
BN1101 EPP I	6	ES1531 Critical Thinking & Writing	4
CFG1010 Roots and Wings (UE)	2	BN1102 EPP II	6
<b>Sub-total</b>	<b>22</b>	<b>Sub-total</b>	<b>22</b>
<b>Semester 3</b>		<b>Semester 4</b>	
BN2201 Quantitative Physiology for Bioengineers	4	BN2102 Bioengineering Data Analysis	4
BN2202 Introduction to Biotransport	4	BN2204 Fundamentals of Biomechanics	4
BN2403 Fundamentals of Biosignals Processing and Bioinstrumentation	4	BN2301 Fundamental Biochemistry and Biomaterials for Bioengineers	4
GEQ1000 (GE 2)	4	EG2401 Engineering Professionalism	2
GET module (GE 3)	4	GE4	4
PC1432 Physics IIE	4	GE5	4
<b>Sub-total</b>	<b>24</b>	<b>Sub-total</b>	<b>22</b>
<b>Semester 5 (First Half Cohort*)</b>		<b>Semester 5 (Second Half Cohort*)</b>	
EG3611a Industrial Attachment	10	BN3101 Biomedical Engineering Design	6
UE 3	4	UE 3	4
		UE 4	4
		Technical Elective 1	4
		Technical Elective 2	4
<b>Sub-total</b>	<b>14</b>	<b>Sub-total</b>	<b>22</b>
<b>Semester 6 (First Half Cohort*)</b>		<b>Semester 6 (Second Half Cohort*)</b>	
BN3101 Biomedical Engineering Design	6	EG3611a Industrial Attachment	10
UE 4	4	UE 5	4
UE 5	4		
Technical Elective 1	4		
Technical Elective 2	4		
<b>Sub-total</b>	<b>22</b>	<b>Sub-total</b>	<b>14</b>
<b>Semester 7</b>		<b>Semester 8</b>	
BN4101 B.Eng. Dissertation	4	BN4101 B.Eng. Dissertation	4
Technical Elective 3	4	Technical Elective 4	4
Pathway Elective 1 (BN5000 module)	4	Pathway Elective 2 (BN5000 module)	4
UE 6	4	UE8	4
UE 7	2		
		<b>Sub-total</b>	<b>16</b>
<b>Sub-total</b>	<b>18</b>	<b>Total</b>	<b>160</b>

\*Note: 50% of the cohort will go on IA in Semester 5 and the other 50% will go in Semester 6.

B) iDCP Pathway

<b>Semester 1</b>		<b>Semester 2</b>	
CS1010E Programming Methodology	4	MA1512 Differential Equations for Engineering	2
CM1501 Organic Chemistry for Engineers	4	MA1513 Linear Algebra with Differential Equations	2
PC1221 Fundamentals of Physics I (UE1)	4	GER1000 Quantitative Reasoning (GE 1)	4
MA1511 Engineering Calculus	2	PC1222 Fundamentals of Physics I (UE 2)	4
BN1101 EPP I	6	ES1531 Critical Thinking & Writing	4
CFG1010 Roots and Wings (UE)	2	BN1102 EPP II	6
<b>Sub-total</b>	<b>22</b>	<b>Sub-total</b>	<b>22</b>
<b>Semester 3</b>		<b>Semester 4</b>	
BN2201 Quantitative Physiology for Bioengineers	4	BN2102 Bioengineering Data Analysis	4
BN2202 Introduction to Biotransport	4	BN2204 Fundamentals of Biomechanics	4
BN2403 Fundamentals of Biosignals Processing and Bioinstrumentation	4	BN2301 Fundamental Biochemistry and Biomaterials for Bioengineers	4
GEQ1000 (GE 2)	4	EG2401 Engineering Professionalism	2
EG2201A Introduction to Design Thinking (UE 3)	4	GET module (GE3)	4
PC1432 Physics IIE	4	EG2301 Case Study in Engineering (UE 4)	4
<b>Sub-total</b>	<b>24</b>	<b>Sub-total</b>	<b>22</b>
		Vacation Internship (Between S4 and S5)	6
<b>Semester 5</b>		<b>Semester 6</b>	
EG3301R Design Project	12	Innovation & Enterprise Elective 1 (Pathway Requirement 1)	4
UE 5	4	UE 6	2
GE 4	4	GE 5	4
		Technical Elective 1	4
<b>Sub-total</b>	<b>20</b>	<b>Sub-total</b>	<b>14</b>
<b>Semester 7</b>		<b>Semester 8</b>	
EG4301 DCP B.Eng. Dissertation	6	EG4301 DCP B.Eng. Dissertation	6
Innovation & Enterprise Elective 2 (Pathway Requirement 2)	4	Innovation & Enterprise Elective 3 (UE3)	4
Technical Elective 2	4	UE 8	4
UE 7	4	Technical Elective 3	4
<b>Sub-total</b>	<b>18</b>	<b>Sub-total</b>	<b>18</b>
		<b>Total</b>	<b>160</b>

C) PPP Pathway

Semester 1		Semester 2	
CS1010E Programming Methodology	4	MA1512 Differential Equations for Engineering	2
CM1501 Organic Chemistry for Engineers	4	MA1513 Linear Algebra with Differential Equations	2
PC1221 Fundamentals of Physics I (UE1)	4	GER1000 Quantitative Reasoning (GE 1)	4
MA1511 Engineering Calculus	2	PC1222 Fundamentals of Physics I (UE 2)	4
BN1101 EPP I	6	ES1531 Critical Thinking & Writing	4
CFG1010 Roots and Wings (UE)	2	BN1102 EPP II	6
<b>Sub-total</b>	<b>22</b>	<b>Sub-total</b>	<b>22</b>
Semester 3		Semester 4	
BN2201 Quantitative Physiology for Bioengineers	4	BN2102 Bioengineering Data Analysis	4
BN2202 Introduction to Biotransport	4	BN2204 Fundamentals of Biomechanics	4
BN2403 Fundamentals of Biosignals Processing and Bioinstrumentation	4	BN2301 Fundamental Biochemistry and Biomaterials for Bioengineers	4
GEQ1000 (GE 2)	4	EG2401 Engineering Professionalism	2
GET module (GE 3)	4	GE 4	4
PC1432 Physics IIE	4	GE 5	4
<b>Sub-total</b>	<b>24</b>	<b>Sub-total</b>	<b>22</b>
Semester 5 (First Half Cohort*)		Semester 5 (Second Half Cohort*)	
EG3611a Industrial Attachment	10	BN3101 Biomedical Engineering Design	6
UE 3	4	UE 3	4
		UE 4	4
		Technical Elective 1	4
		Technical Elective 2	4
<b>Sub-total</b>	<b>14</b>	<b>Sub-total</b>	<b>22</b>
Semester 6 (First Half Cohort*)		Semester 6 (Second Half Cohort*)	
BN3101 Biomedical Engineering Design	6	EG3611a Industrial Attachment	10
UE 4	4	UE 5	4
UE 5	4		
Technical Elective 1	4		
Technical Elective 2	4		
<b>Sub-total</b>	<b>22</b>	<b>Sub-total</b>	<b>14</b>
Semester 7		Semester 8	
BN4101 B.Eng. Dissertation	4	BN4101 B.Eng. Dissertation	4
Technical Elective 3	4	Technical Elective 4	4
Pathway Elective 1 (Professional Development module)	4	Pathway Elective 2 (Professional Development module)	4
UE 6	4	UE8	4
UE 7	2		
<b>Sub-total</b>	<b>18</b>	<b>Sub-total</b>	<b>16</b>
		<b>Total</b>	<b>160</b>

\*Note: 50% of the cohort will go on IA in Semester 5 and the other 50% will go in Semester 6.