

COHORT 2017/2018
Bachelor of Engineering (Biomedical Engineering)

Recommended Semester Schedule for Biomedical Engineering Students

A) RfP 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
GET module (GE 1)	4	GER1000 Quantitative Reasoning (GE 2)	4
MA1511 Engineering Calculus	2	PC1432 Physics IIE	4
BN1101 EPP I	6	ES1531 Critical Thinking & Writing	4
CFG1010 Roots and Wings (UE)	2	BN1102 EPP II	6
Sub-total	22	Sub-total	22
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 3)	4	EG2401 Engineering Professionalism	2
GE4	4	GE5	4
UE1	4	UE2	4
Sub-total	24	Sub-total	22
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
Sub-total	14	Sub-total	22
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		
Sub-total	22	Sub-total	14
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 (BN5000 module)	4	Pathway Elective 2 (BN5000 module)	4
UE 6	4	UE8	4
UE 7	2		
Sub-total	18	Sub-total	16
		Total	160

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

B) iDCP 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
GET module (GE 1)	4	GER1000 Quantitative Reasoning (GE 2)	4
MA1511 Engineering Calculus	2	PC1432 Physics IIE	4
BN1101 EPP I	6	ES1531 Critical Thinking & Writing	4
CFG1010 Roots and Wings (UE)	2	BN1102 EPP II	6
Sub-total	22	Sub-total	22
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 3)	4	EG2401 Engineering Professionalism	2
EG2201A Introduction to Design Thinking (UE1)	4	GE4	4
		EG2301 Case Study in Engineering (UE2)	4
Sub-total	20	Sub-total	22
		Vacation Internship (Between S4 and S5)	6
Semester 5		Semester 6	
EG3301R Design Project	12	Innovation & Enterprise Elective 1 (Pathway Requirement 1)	4
UE 4	4	UE 5	2
Technical Elective 1	4	UE 6	4
		Technical Elective 2	4
		GE 5	4
Sub-total	20	Sub-total	18
Semester 7		Semester 8	
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 3	4	UE 8	4
UE 7	2		
Sub-total	16	Sub-total	14
		Total	160

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
GET module (GE 1)	4	GER1000 Quantitative Reasoning (GE 2)	4
MA1511 Engineering Calculus	2	PC1432 Physics IIE	4
BN1101 EPP I	6	ES1531 Critical Thinking & Writing	4
CFG1010 Roots and Wings (UE)	2	BN1102 EPP II	6
Sub-total	22	Sub-total	22
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 3)	4	EG2401 Engineering Professionalism	2
GE4	4	GE5	4
UE1	4	UE2	4
Sub-total	24	Sub-total	22
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
Sub-total	14	Sub-total	22
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		
Sub-total	22	Sub-total	14
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		
Sub-total	18	Sub-total	16
		Total	160

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