COHORT 2012/2013
Bachelor of Engineering (Bioengineering)

Recommended Semester Schedule
The recommended schedules are given in Table c, d, e and f.

Table c: Recommended Semester Schedule for Bioengineering Students

Modules	MCs	Modules	MCs
Semester 1		**Semester 2**	
MA1505 Mathematics 1	4	CS1010E Programming Methodology	4
PC1431 Physics IE	4	EG1109 Statics and Mechanics of Materials	4
EG1108 Electrical Engineering	3	MA1506 Mathematics II	4
EG1413 Critical Thinking and Writing	4	PC1432 Physics IIE	4
Breadth Module 1 *	4	Breadth Module 2 *	4
Sub-total	19	Sub-total	20
Semester 3		**Semester 4**	
BN2101 Principles of Bioengineering	4	BN2102 Bioengineering Data Analysis	4
BN2202 Introduction to Biotransport	4	BN2201 Quantitative Physiology for Bioengineers	4
BN2401 Biosignals Processing	4	BN2203 Introduction to Bioengineering Design	4
CM1121 Basic Organic Chemistry or CM1501 Organic Chemistry for Engineers	4	LSM2103 Cell Biology	4
LSM1401 Fundamentals of Biochemistry	4	GEM 1 / SS	4
Sub-total	20	Sub-total	20
Semester 5		**Semester 6**	
BN3101 Biomedical Engineering Design	6	BN3401 Biomedical Electronics and Systems	4
BN3201 Introduction to Biomechanics	4	BN3501 Equilibrium and Kinetic Bioprocesses	4
BN3301 Introduction to Biomaterials	4	HR2002 Human Capital in Organizations	3
EG2401 Engineering Professionalism	3	UEM 1	4
GEM 1 / SS	4	UEM 2 / GEM 2	4
Sub-total	21	Sub-total	19
Semester 7		**Semester 8**	
BN4101R B.Eng. Dissertation	6	BN4101R B.Eng. Dissertation	6
BN Elective 1	4	BN Elective 3	4
BN Elective 2	4	BN Elective 4	4
UEM 2 / GEM 2	4	UEM 4	4
UEM 3	2	UEM 5	4
	20		22

Students without the GCE 'A' Level Chemistry or equivalent are strongly recommended to read *CM1417 Fundamentals of Chemistry as their breadth modules in their first year.
The Department reserves the right to decide on the modules to be offered in any given semester.

Table d: Recommended Semester Schedule for Bioengineering Students with Industrial Attachment

Modules	MCs	Modules	MCs
Semester 1		**Semester 2**	
MA1505 Mathematics 1	4	CS1010E Programming Methodology	4
PC1431 Physics IE	4	EG1109 Statics and Mechanics of Materials	4
EG1108 Electrical Engineering	3	MA1506 Mathematics II	4
EG1413 Critical Thinking and Writing	4	PC1432 Physics IIE	4
Breadth Module 1 *	4	Breadth Module 2 *	4
		GEM 1 / SS	4
Sub-total	19	Sub-total	24
Semester 3		**Semester 4**	
BN2101 Principles of Bioengineering	4	BN2102 Bioengineering Data Analysis	4
BN2202 Introduction to Biotransport	4	BN2201 Quantitative Physiology for Bioengineers	4
BN2401 Biosignals Processing	4	BN2203 Introduction to Bioengineering Design	4
CM1121 Basic Organic Chemistry or CM1501 Organic Chemistry for Engineers	4	LSM2103 Cell Biology	4
LSM1401 Fundamentals of Biochemistry	4	GEM 1 / SS	4
Sub-total	20	Sub-total	20
Semester 5		**Semester 6**	
BN3101 Biomedical Engineering Design	6	BN3501 Equilibrium and Kinetic Bioprocesses	4
BN3201 Introduction to Biomechanics	4	HR2002+ Human Capital in Organizations	3
BN3301 Introduction to Biomaterials	4	UEM 1 / GEM 2	4
EG2401 Engineering Professionalism	3	UEM 2	4
UEM 1 / GEM 2	4	UEM 3	4
Sub-total	21	Sub-total	15
Semester 7		**Semester 8**	
BN4101R B.Eng. Dissertation	6	BN4101R B.Eng. Dissertation	6
BN Elective 1	4	BN3401 Biomedical Electronics and Systems	4
BN Elective 2	4	BN3501 Equilibrium and Kinetic Bioprocesses	4
UEM 4	4	BN Elective 3	4
UEM 5	2	BN Elective 4	4
	20		22

+Students are allowed to take up to two (2) modules in the evening, subject to approval.
Students without the GCE 'A' Level Chemistry or equivalent are strongly recommended to read *CM1417 Fundamentals of Chemistry as their breadth modules in their first year.
The Department reserves the right to decide on the modules to be offered in any given semester.

Table e: Recommended Semester Schedule for Bioengineering Students (Accelerated)

Modules	MCs	Modules	MCs
Semester 1		**Semester 2**	
MA1505 Mathematics 1	4	CS1010E Programming Methodology	4
PC1431 Physics IE	4	EG1109 Statics and Mechanics of Materials	4
EG1108 Electrical Engineering	3	MA1506 Mathematics II	4
EG1413 Critical Thinking and Writing	4	PC1432 Physics IIE	4
Breadth Module 1 *	4	Breadth Module 2 *	4
SS / GEM 1	4	SS / GEM 1	4
Sub-total	23	Sub-total	24
Semester 3		**Semester 4**	
BN2101 Principles of Bioengineering	4	BN2102 Bioengineering Data Analysis	4
BN2202 Introduction to Biotransport	4	BN2201 Quantitative Physiology for Bioengineers	4
BN2401 Biosignals Processing	4	BN2203 Introduction to Bioengineering Design	4
CM1121 Basic Organic Chemistry or CM1501 Organic Chemistry for Engineers	4	LSM2103 Cell Biology	4
LSM1401 Fundamentals of Biochemistry	4	BN3401 Biomedical Electronics and Systems	4
UEM 1	4	GEM 2	4
Sub-total	24	Sub-total	24
Semester 5		**Semester 6**	
BN3101 Biomedical Engineering Design	6	BN3501 Equilibrium and Kinetic Bioprocesses	4
BN3201 Introduction to Biomechanics	4	BN4101R B.Eng. Dissertation	6
BN3301 Introduction to Biomaterials	4	BN Elective 1	4
EG2401 Engineering Professionalism	3	UEM 4	2
UEM 2	4	HR2002 Human Capital in Organizations	3
UEM 3	4	-	
Sub-total	25	Sub-total	19
Semester 7		**Semester 8**	
BN4101R B.Eng. Dissertation	6		
BN Elective 2	4		
BN Elective 3	4		
BN Elective 4	4		
UEM 5	4		
	22		0

Students without the GCE 'A' Level Chemistry or equivalent are strongly recommended to read *CM1417 Fundamentals of Chemistry as their breadth modules in their first year.
The Department reserves the right to decide on the modules to be offered in any given semester.

Table f: Recommended Semester Schedule for Bioengineering Students without A level Physics

Modules	MCs	Modules	MCs
Semester 1		**Semester 2**	
MA1505 Mathematics 1	4	CS1010E Programming Methodology	4
EG1108 Electrical Engineering	3	EG1109 Statics and Mechanics of Materials	4
EG1413 Critical Thinking and Writing	4	MA1506 Mathematics II	4
PC1221 Fundamentals of Physics I (Breadth Module 1)	4	PC1431 Physics IE	4
PC1222 Fundamentals of Physics II (Breadth Module 2)	4	PC1432 Physics IIE	4
UEM 1	4	-	
Sub-total	23	Sub-total	20
Semester 3		**Semester 4**	
BN2101 Principles of Bioengineering	4	BN2102 Bioengineering Data Analysis	4
BN2202 Introduction to Biotransport	4	BN2201 Quantitative Physiology for Bioengineers	4
BN2401 Biosignals Processing	4	BN2203 Introduction to Bioengineering Design	4
CM1121 Basic Organic Chemistry or CM1501 Organic Chemistry for Engineers	4	LSM2103 Cell Biology	4
LSM1401 Fundamentals of Biochemistry	4	SS	4
Sub-total	20	Sub-total	20
Semester 5		**Semester 6**	
BN3101 Biomedical Engineering Design	6	BN3401 Biomedical Electronics and Systems	4
BN3201 Introduction to Biomechanics	4	BN3501 Equilibrium and Kinetic Bioprocesses	4
BN3301 Introduction to Biomaterials	4	HR2002 Human Capital in Organizations	3
EG2401 Engineering Professionalism	3	UEM 2	4
GEM 1	4	UEM 3	4
-		GEM 2	4
Sub-total	21	Sub-total	23
Semester 7		**Semester 8**	
BN4101R B.Eng. Dissertation	6	BN4101R B.Eng. Dissertation	6
BN Elective 1	4	BN Elective 3	4
BN Elective 2	4	BN Elective 4	4
UEM 4	2	UEM 5	4
	16		18

Students without the GCE 'A' Level Chemistry or equivalent are strongly recommended to read *CM1417 Fundamentals of Chemistry as their breadth modules in their first year.
The Department reserves the right to decide on the modules to be offered in any given semester.