## B.Eng (Hons) in Bioengineering with 2nd Major in Business (Mainstream)

<u>with Professional Internship</u> AY2022 - 2023 Intake onwards

		Number of Academic Unit (AU)							
Programme	Year of Study	Major Requirement		Interdisciplinary Collaborative Core		Broadening and Deepening	Total		
		Core (C)	Major PE (MPE)	Common Core (CC)	Foundational Core (FC)	Electives (BDE)			
Bioengineering	1	21/22*		9		6	36/37*		
with Second	2	26		8	3	6	43		
Major in	3	13			12	6	31		
Business	4	17	6			12	35		
Dusilless	Total	77/78*	6	17	15	30	145/146*		

Category			AU	Total AU		
	Common	Core (University-level)				
	CC0001 In World	quiry and Communication in the Interdisciplinary	2			
	CC0002 Na	avigating the Digital World	2			
Interdisciplinary Collaborative Core (ICC)	CC0003 Et	hics & Civics in a Multi-Cultural World	2			
	CC0005 He	ealthy Living & Wellbeing	3	17		
	CC0006 St	ustainability: Society, Economy & Environment	3			
	CC0007 Sc	cience & Technology for Humanity	3			
	ML0004 C Future Wo	areer and Entrepreneurial Development for the orld	2			
	1	nal Core (College-level)				
	HW0288 E	Engineering Communication	2			
	CB0494 In	troduction to Data Science and Artificial Intelligence	3	15		
	BG3880 Pi	rofessional Internship	10			
	I		I			
	BIE Core	5				
	EG1001	Engineers In Society	2			
	MH1810	Math 1	3			
	PH1011*	Physics	3			
Major Requirement	CB1102	Introduction to Chemical and Biomedical Engineering	1	20		
	CB1103	Organic Chemistry For Engineers	3			
	CB1117	Engineering Mathematics	4			
	BG1141	Fundamental Biology for Bioengineers	3			
	BG1801	Bioengineering Lab 1A	1			

BG1802 Bioengineering Lab 1B 1	
BG2103 Signal Processing in Biosystems 3	
BG2104 Electronics for Biomedical Engineering 3	
BG2110 Bioelectricity 3	
BG2119 Anatomy and Physiology 3	
BG2131 Biomaterials 3	
BG2142 Biological Thermodynamics 3	
BG2209 Mechanics for Bioengineers 3	
BG2211 Introduction to Computational Thinking 3	
BG2801 Bioengineering Lab 2A 1	57
Major Requirement BG2802 Bioengineering Lab 2B 1	37
BG3102 Control in Biosystems 3	
BG3104 Biomedical Imaging 3	
BG3105 Biomedical Instrumentation 3	
BG3112 Biofluid Mechanics and Medical Devices 3	
BG3801 Bioengineering Lab 3	
Machine Learning and Ontimization for	
Bioengineers 3	
BG4122 Medical Device Design 6	
BG4801 Final Year Project 8	
BIE Major Prescribed Electives (MPE)	6
Foundation Business Courses	
AB1201 Financial Management 3	
AB1301 Business Law 3	
AB1501 Marketing 3	
AB1601 Organisational Behaviour & Design 3	
AD1102 Financial Accounting 3	
2nd Major in BE1402 Business Operations & Process 3	30
Business (BDEs) Advanced Business Courses	50
AD2102 Management Accounting 3	
BE2602 Management in Principles, Skills & Competencies 3	
BF2219 Investments 3	
BM2509 Consumer Insights 3	
Total 14	5/146*

<sup>\*</sup>Students without 'A' Level Physics will take 'PH1012 Physics A' (4AU).

_	semester 1	_				emester 2	_	
CB1102	Introduction to Chemical and Biomedical	<b>Type</b> C	<b>AU</b> 1	=	Course CR1103	Organic Chemistry For Engineers	<b>Type</b> C	<b>Al</b> 3
	Engineering		•					
G1141	6,7	С	3		CB1117	Engineering Mathematics	С	4
3G1801	Bioengineering Lab 1A	С	1		BG1802	Bioengineering Lab 1B	С	1
иН1810	Math 1	С	3		EG1001	Engineers in Society	С	2
PH1011	Physics or	С	3		CC0003 CC0005	Ethics & Civics in a Multi-Cultural World Healthy Living & Wellbeing	CC	3
PH1012	Physics A (*For students without 'A' Level Physics)	С	4		AB1501	Marketing	BDE	3
CC0001	Inquiry and Communication in the Interdisciplinary World	СС	2					
CC0002		CC	2					
AB1201	Financial Management	BDE	3	*				
			18	19				18
/oar 2 S	Semester 1				Voor 2 S	emester 2		
Course		Туре	AU	_	Course		Туре	Αl
3G2119	Anatomy and Physiology	С	3		BG2103	Signal Processing in Biosystems	С	3
3G2131	Biomaterials	С	3		BG2104	Electronics for Biomedical Engineering	С	3
3G2142	3	С	3		BG2110	-	С	3
G2211 G2801		C C	3 1		BG2209	Mechanics for Bioengineers Bioengineering Lab 2B	c c	3
	Sustainability: Society, Economy &							
C0006	Environment Career and Entrepreneurial Development for	CC	3		CC0007	Science & Technology for Humanity  Introduction to Data Science and Artificial	CC	3
	Career and Entrepreneural Development for	CC	2		CB0494		FC	3
ЛL0004	the Future World				000494	Intelligence		
		BDE	3		AB1601	Organisational Behavior and Design	BDE	3
ML0004 AD1102 Year 3 S			3	-	AB1601	<u> </u>	BDE	22
AD1102 Year 3 S Course	Financial Accounting	BDE Type	3 21	-	AB1601 Year 3 Sc	Organisational Behavior and Design emester 2	Туре	3 22
AD1102 Year 3 S Course 3G3102	Financial Accounting  Semester 1  Control in Biosystems	Type C	3 21 AU 3	-	AB1601 Year 3 Sc	Organisational Behavior and Design		2:
Vear 3 S Course 3G3102 3G3104	Financial Accounting	BDE Type	3 21	-	AB1601 Year 3 Sc	Organisational Behavior and Design emester 2	Туре	2: Al
Year 3 S Course 3G3102 3G3104 3G3105 3G3112	Financial Accounting  Semester 1  Control in Biosystems Biomedical Imaging Biomedical Instrumentation Biofluid Mechanics and Medical Devices	Type C C C C	3 21 AU 3 3 3 3 3	-	AB1601 Year 3 Sc	Organisational Behavior and Design emester 2	Туре	2: Al
Year 3 S Course 3G3102 3G3104 3G3105 3G3112 3G3801	Financial Accounting  Semester 1  Control in Biosystems Biomedical Imaging Biomedical Instrumentation Biofluid Mechanics and Medical Devices Bioengineering Lab 3	Type C C C C	3 21 AU 3 3 3 3 1	-	AB1601 Year 3 Sc	Organisational Behavior and Design emester 2	Туре	2: Al
(ear 3 S Course 3G3102 3G3104 3G3105 3G3112 3G3801 HW0288	Financial Accounting  Semester 1  Control in Biosystems Biomedical Imaging Biomedical Instrumentation Biofluid Mechanics and Medical Devices Bioengineering Lab 3  Engineering Communication	Type C C C C C	3 21 3 3 3 3 1 2	-	AB1601 Year 3 Sc	Organisational Behavior and Design emester 2	Туре	2: Al
Year 3 S Course 3G3102 3G3104 3G3105 3G3112 3G3801 4W0288	Financial Accounting  Semester 1  Control in Biosystems Biomedical Imaging Biomedical Instrumentation Biofluid Mechanics and Medical Devices Bioengineering Lab 3 S Engineering Communication Business Law	Type C C C C FC BDE	3 21 3 3 3 3 1 2	-	AB1601 Year 3 Sc	Organisational Behavior and Design emester 2	Туре	2: Al
Year 3 S Course 3G3102 3G3104 3G3105 3G3112 3G3801 4W0288	Financial Accounting  Semester 1  Control in Biosystems Biomedical Imaging Biomedical Instrumentation Biofluid Mechanics and Medical Devices Bioengineering Lab 3  Engineering Communication	Type C C C C C	3 21 3 3 3 3 1 2		AB1601 Year 3 Sc	Organisational Behavior and Design emester 2	Туре	2: Al
(ear 3 S Course 3G3102 3G3104 3G3105 3G3112 3G3801 HW0288	Financial Accounting  Semester 1  Control in Biosystems Biomedical Imaging Biomedical Instrumentation Biofluid Mechanics and Medical Devices Bioengineering Lab 3 S Engineering Communication Business Law	Type C C C C FC BDE	3 21 3 3 3 3 1 2		AB1601 Year 3 Sc	Organisational Behavior and Design emester 2	Туре	2: Al
Year 3 S Course 3G3102 3G3104 3G3105 3G3104 3G3105 3G3104 3G3105 3G3102 3G3801 HW0288 4B1301 4D2102	Financial Accounting  Semester 1  Control in Biosystems Biomedical Imaging Biomedical Instrumentation Biofluid Mechanics and Medical Devices Bioengineering Lab 3 S Engineering Communication Business Law	Type C C C C FC BDE	3 21 3 3 3 3 1 2 3 3		Year 3 Sc Course BG3880	Organisational Behavior and Design emester 2	Туре	3 22 Al 10
Gar 3 S Course G3102 G3105 G3105 G3104 G3105 G3104 HW0288 B1301 HW0288	Financial Accounting  Semester 1  Control in Biosystems Biomedical Imaging Biomedical Instrumentation Biofluid Mechanics and Medical Devices Bioengineering Lab 3  Engineering Communication  Business Law Management Accounting	Type C C C C FC BDE	3 21 3 3 3 3 1 2 3 3		Year 3 Sc Course BG3880	Organisational Behavior and Design  emester 2  Professional Internship	Туре	3 22 Al 10
Gar 3 S Course GG3102 GG3104 GG3105 GG3105 GG3102 GG3801 HW0288 B1301 LD2102	Financial Accounting  Gemester 1  Control in Biosystems Biomedical Imaging Biomedical Instrumentation Biofluid Mechanics and Medical Devices Bioengineering Lab 3  Engineering Communication  Business Law Management Accounting	Type C C C C C FC BDE BDE	3 21 3 3 3 3 1 2 3 3	-	Year 3 Sc Course BG3880	Organisational Behavior and Design  emester 2  Professional Internship	<b>Type</b> FC	3 22 AA 10
Gear 3 S Course GG3102 GG3104 GG3105 GG3112 GG3801 HW0288 BB1301 D2102	Financial Accounting  Semester 1  Control in Biosystems Biomedical Imaging Biomedical Instrumentation Biofluid Mechanics and Medical Devices Bioengineering Lab 3  Engineering Communication  Business Law Management Accounting  Mechine Learning and Optimization for Bioengineers Medical Device Design	Type C C C C C BDE BDE Type C C C C C C C C C C C C C C C C C C C	3 21 3 3 3 3 1 2 3 3 3	-	Year 3 Sc Course BG3880 Year 4 Sc Course BG4122	emester 2 Professional Internship  emester 2  Medical Device Design Final Year Project	Type FC C C	10 AA 3 4
Gear 3 S Course GG3102 GG3104 GG3105 GG3112 GG3801 HW0288 BB1301 D2102	Financial Accounting  Gemester 1  Control in Biosystems Biomedical Imaging Biomedical Instrumentation Biofluid Mechanics and Medical Devices Bioengineering Lab 3  Engineering Communication  Business Law Management Accounting  Machine Learning and Optimization for Bioengineers Medical Device Design Final Year Project	Type C C C C C FC BDE BDE C C C C C C C C C C C C C C C C C C C	3 21 3 3 3 1 2 3 3 4		Year 3 Sc Course BG3880 Year 4 Sc Course BG4122 BG4801	emester 2 Professional Internship  emester 2  Medical Device Design Final Year Project BIE PE 2	Type FC C C MPE	10 AA 3 4 4 3
Year 3 S Course 3G3102 3G3104 3G3105 3G3112 3G3801 4W0288 AB1301 AD2102 Year 4 S Course 3G4104	Financial Accounting  Gemester 1  Control in Biosystems Biomedical Imaging Biomedical Instrumentation Biofluid Mechanics and Medical Devices Bioengineering Lab 3  Engineering Communication  Business Law Management Accounting  Machine Learning and Optimization for Bioengineers Medical Device Design Final Year Project  BIE PE 1	Type C C C C C BDE BDE Type C C C C C C C C C C C C C C C C C C C	3 21 3 3 3 1 2 3 3 3 4 2 21		Year 3 Sc Course BG3880 Year 4 Sc Course BG4122	emester 2 Professional Internship  emester 2  Medical Device Design Final Year Project BIE PE 2	Type FC C C	1 A A 3 4 4 3
Gear 3 S Course GG3102 GG3104 GG3105 GG3112 GG3801 HW0288 BB1301 D2102	Financial Accounting  Gemester 1  Control in Biosystems Biomedical Imaging Biomedical Instrumentation Biofluid Mechanics and Medical Devices Bioengineering Lab 3  Engineering Communication  Business Law Management Accounting  Machine Learning and Optimization for Bioengineers Medical Device Design Final Year Project	Type C C C C C FC BDE BDE C C C C C C C C C C C C C C C C C C C	3 21 3 3 3 1 2 3 3 4	-	Year 3 Sc Course BG3880 Year 4 Sc Course BG4122 BG4801 BE1402	emester 2 Professional Internship  emester 2  Medical Device Design Final Year Project BIE PE 2	Type FC C C MPE	1 A A 3 2 3 3 3
Gar 3 Scourse G3102 G3102 G3104 G3105 G3101 W0288 B1301 W0288 B1301 D2102 G4104 G4122 G4801	Financial Accounting  Gemester 1  Control in Biosystems Biomedical Imaging Biomedical Instrumentation Biofluid Mechanics and Medical Devices Bioengineering Lab 3  Engineering Communication  Business Law Management Accounting  Machine Learning and Optimization for Bioengineers Medical Device Design Final Year Project  BIE PE 1  Management in Principles, Skills &	Type C C C C C BDE BDE C C C MPE	3 21 3 3 3 1 2 3 3 3 4 3 3		Year 3 Sc Course BG3880 Year 4 Sc Course BG4122 BG4801 BE1402	emester 2 Professional Internship  emester 2  Medical Device Design Final Year Project BIE PE 2  Business Operations and Processes	Type FC C C MPE BDE	10 AA 3
Gar 3 S Course GG3102 GG3104 GG3105 GG31012 GG3801 W0288 BB1301 D2102 Gear 4 S Course GG4104 GG4122 GG4801	Financial Accounting  Gemester 1  Control in Biosystems Biomedical Imaging Biomedical Instrumentation Biofluid Mechanics and Medical Devices Bioengineering Lab 3 Engineering Communication  Business Law Management Accounting  Machine Learning and Optimization for Bioengineers Medical Device Design Final Year Project BIE PE 1  Management in Principles, Skills & Competencies	Type C C C C C FC BDE BDE C C C MPE BDE	3 21 3 3 3 3 1 2 3 3 3 3 3 3 3 3 3 3 3 3	-	Year 3 Sc Course BG3880 Year 4 Sc Course BG4122 BG4801 BE1402	emester 2 Professional Internship  emester 2  Medical Device Design Final Year Project BIE PE 2  Business Operations and Processes	Type FC C C MPE BDE	10 AA 3 4 3 3 3

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