B.Eng (Hons) in Bioengineering with 2nd Major in Entrepreneurship

with Professional Internship

AY2024 - 2025 Intake onwards (BEET)

Programme		Number of Academic Units (AU)						
	Year of Study	Major Red	quirement		sciplinary rative Core	Broadening and		
		Core (C)	Major PE (MPE)	Common Core (CC)	Foundational Core (FC)	Deepening Electives (BDE)	Total	
D:	1	21/22*		9		6	36/37*	
Bioengineering	2	26		8	3	6	43	
with Second	3	13	3		12 [5]	3	31 [5]	
Major in	4	17	3			10	30	
Entrepreneurship (BEET)	Total	77/78*	6	17	15 [5]	25	140/141*	

Category				Total AU	
	Common (Core (University-level)			
Interdisciplinary Collaborative Core (ICC)	CC0001 Inc World	quiry and Communication in the Interdisciplinary	2		
	CC0002 Na	2			
	CC0003 Et	hics & Civics in a Multi-Cultural World	2	17	
	CC0005 He	ealthy Living & Wellbeing	3	1/	
	CC0006 Su	stainability: Society, Economy & Environment	3		
	CC0007 Sc	ience & Technology for Humanity	3		
	ML0004 Ca Future Wo	areer and Entrepreneurial Development for the orld	2		
	Foundatio	nal Core (College-level)	2		
	HW0288 E	ngineering Communication		5	
		troduction to Data Science and Artificial	3		
	Intelligenc	e			
	BIE Core				
	EG1001	Engineers In Society	2		
	MH1810	Math 1	3		
Major Requirement	PH1011*	Physics	3		
	CB1102	Introduction to Chemical and Biomedical Engineering	1	20	
	CB1103	Organic Chemistry For Engineers	3		
	CB1117	Engineering Mathematics	4		
	BG1141	Cellular & Molecular Biology for Bioengineers	3		
	BG1801	Bioengineering Lab 1A	1		

	BG1802	Bioengineering Lab 1B	1			
	BG2103	G2103 Signal Processing in Biosystems				
	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	J/		
	BG3102	Control in Biosystems	3			
	BG3104	Biomedical Imaging	3			
	BG3105	Biomedical Instrumentation	3			
	BG3112	Cardiovascular Engineering	3			
	BG3801	Bioengineering Lab 3	1			
	D03001	Machine Learning and Optimization for	_			
	BG4104	Bioengineers	3			
	BG4122	Medical Device Design	6			
	BG4801	Final Year Project	8			
	BIE Major		6			
	Compulsor	ry Courses				
	ET5211	Technopreneurial Mindset	3			
	ET5211	Entrepreneurial Ecosystems	3			
	ET5213	Managing New Ventures	3			
	ET5214					
2nd Major in Entrepreneurship	Compulsory Experiential Programme					
(BDEs)	BG3940	Overseas Entrepreneurship Programme (OEP)				
		OR	10^			
	BG3920	Professional Internship (PI)				
	Elective Co					
Total				140/141*		

^{*}Students without 'A' Level Physics will take 'PH1012 Physics A' (4AU).

^{^5} AU out of the 10AU is from ICC Foundational Core

^[] AU of courses that could be used to fulfil Core/MPE requirment and 2nd Major requirment concurrently

Suggeste	ioengineering) with 2nd Major in Entrepren d Study Plan for AY2024-2025 intake (BEET ess <i>ional Internship</i>							
Year 1 Semester 1 Course		Туре	AU	Year 1 S Course		mester 2	Туре	AU
CB1102	Introduction to Chemical and Biomedical Engineering	С	1	CB1	103	Organic Chemistry For Engineers	С	3
BG1141	Cellular & Molecular Biology for Bioengineers	С	3	CB1	117	Engineering Mathematics	С	4
BG1801	Bioengineering Lab 1A	С	1	BG1	1802	Bioengineering Lab 1B	С	1
MH1810	Math 1	С	3	EG1	1001	Engineers in Society	С	2
PH1011	Physics	С	3	CCC		Ethics & Civics in a Multi-Cultural World	CC	2
PH1012	or Physics A (* For students without 'A' Level Physics)	С	4	ET5		Healthy Living & Wellbeing Managing New Ventures	CC BDE	3
CC0001	Inquiry and Communication in the	СС	2					
CC0002	interdisciplinary vvorid		2					
ET5211	Technopreneurial Mindset	BDE	3	*				
Y			18	19				18
Year 2 Se Course	mester 1	Туре	AU	rea Cou		mester 2	Type	AU
BG2119	Anatomy and Physiology	C	3	BG2		Signal Processing in Biosystems	C	3
BG2131	Biomaterials	С	3	BG2	2104	Electronics for Biomedical Engineering	С	3
BG2142 BG2211	Biological Thermodynamics Introduction to Computational Thinking	C C	3 3	BG2 BG2		Bioelectricity Mechanics for Bioengineers	C C	3 3
BG2801	Bioengineering Lab 2A	С	1	BG2	2802	Bioengineering Lab 2B	С	1
CC0006	Sustainability: Society, Economy & Environment	СС	3	CCC	0007	Science & Technology for Humanity	СС	3
ML0004	Career and Entrepreneurial Development for the Future World	CC	2	CBO		Introduction to Data Science and Artificial Intelligence	FC	3
ET5212	Entrepreneurial Ecosystems	BDE	3	ET5	214	Financing Entrepreneurial Ventures	BDE	3
			21					22
Year 3 Se Course	mester 1	Туре	AU	Yea Cou		mester 2	Туре	AU
BG3102	Control in Biosystems	С	3	^ ^BG	3940	Overseas Entrepreneurship Programme	FC/ BDE	
BG3104	Biomedical Imaging	С	3			OR	DDL	10
BG3105	Biomedical Instrumentation	С	3	^BG	3920	Professional Internship	FC/ BDE	
BG3112	Cardiovascular Engineering	С	3				DDL	
BG3801	Bioengineering Lab 3	С	1					
	BIE PE 1	MPE	3					
HW0288	Engineering Communication Entrepreneurship Elective 1	FC BDE	2					
			21	_				10
Year 4 Se Course	mester 1	Туре	AU	Yea Cou		mester 2	Туре	AU
BG4104	Machine Learning and Optimization for	С	3	BG4		Medical Device Design	С	3
BG4122	Bioengineers Medical Device Design	С	3	BG4		Final Year Project	С	4
BG4122 BG4801	Final Year Project	C	4	DG4	FUU 1	Entrepreneurship Elective 3	BDE	3
	BIE PE 2	MPE	3			Entrepreneurship Elective 4	BDE	3
	Entrepreneurship Elective 2	BDE	4					
			17			T-tot (AII)		13
l						Total (AU)		140 141*

^{*}Students without 'A' Level Physics will take 'PH1012 Physics A' (4AU). ^5 AU out of the 10AU is from ICC Foundational Core