

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

with Professional Internship

AY2024 - 2025 Intake onwards (BEET)

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

Category		AU	Total AU
Interdisciplinary Collaborative Core (ICC)	<b>Common Core (University-level)</b>		
	CC0001 Inquiry and Communication in the Interdisciplinary World	2	17
	CC0002 Navigating the Digital World	2	
	CC0003 Ethics & Civics in a Multi-Cultural World	2	
	CC0005 Healthy Living & Wellbeing	3	
	CC0006 Sustainability: Society, Economy & Environment	3	
	CC0007 Science & Technology for Humanity	3	
	ML0004 Career and Entrepreneurial Development for the Future World	2	
	<b>Foundational Core (College-level)</b>		
Major Requirement	HW0288 Engineering Communication	2	5
	CB0494 Introduction to Data Science and Artificial Intelligence	3	
	<b>BIE Core</b>		20
	EG1001 Engineers In Society	2	
	MH1810 Math 1	3	
	PH1011* Physics	3	
	CB1102 Introduction to Chemical and Biomedical Engineering	1	
	CB1103 Organic Chemistry For Engineers	3	
	CB1117 Engineering Mathematics	4	
	BG1141 Cellular & Molecular Biology for Bioengineers	3	
	BG1801 Bioengineering Lab 1A	1	

Major Requirement	BG1802	Bioengineering Lab 1B	1	57
	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	
	BG2802	Bioengineering Lab 2B	1	
	BG3102	Control in Biosystems	3	
	BG3104	Biomedical Imaging	3	
	BG3105	Biomedical Instrumentation	3	
	BG3112	Cardiovascular Engineering	3	
	BG3801	Bioengineering Lab 3	1	
	BG4104	Machine Learning and Optimization for Bioengineers	3	
	BG4122	Medical Device Design	6	
	BG4801	Final Year Project	8	
	BIE Major Prescribed Electives (MPE)			
2nd Major in Entrepreneurship (BDEs)	<b>Compulsory Courses</b>			35^
	ET5211	Technopreneurial Mindset	3	
	ET5212	Entrepreneurial Ecosystems	3	
	ET5213	Managing New Ventures	3	
	ET5214	Financing Entrepreneurial Ventures	3	
	<b>Compulsory Experiential Programme</b>			
	BG3940	Overseas Entrepreneurship Programme (OEP)	10^	
	OR			
	BG3920	Professional Internship (PI)		
<b>Elective Courses (at least 4 courses)</b>		13		
<b>Total</b>			<b>140/141*</b>	

\*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 requirement and 2nd Major requirement concurrently

## Year 1 Semester 1

	18	19
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## Year 2 Semester 1

21

## Year 3 Semester 1

21

## Year 4 Semester 1

17

## Year 1 Semester 2

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18

## Year 2 Semester 2

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22

## Year 3 Semester 2

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10

## Year 4 Semester 2

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13

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**Total (AU)**

140

141\*

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

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