

BEng (BioEngineering) and BA (Economics) (Students admitted from AY2019/2020)

List of courses that contribute to BEng (BioEngineering)				AU Load			
Discipline Requirement	Core	PH1011*	Physics	3	88 AU (PA) 93 AU (PI)		
		BG1101	Introduction to Biomedical Engineering	2			
		MH1810	Mathematics 1	3			
		BG1103	Chemistry	3			
		BG1105	Materials Science	3			
		BG1117	Engineering Mathematics	4			
		BG1109	Anatomy & Physiology	3			
		BG1131	Molecular Cell Biology for Biomedical Engineers	4			
		BG1801	Bioengineering Lab 1a	1			
		BG1802	Bioengineering Lab 1b	1			
		BG2104	Electronics for Biomedical Engineering	3			
		BG2109	Biomechanics	3			
		BG2110	Bioelectricity	3			
		BG2211	Introduction to Computational Thinking	3			
		BG2112	Cardiovascular Engineering	4			
		BG2131	Biomaterials	3			
		BG2141	Mechanics of Materials	3			
		BG2142	Biological Thermodynamics	3			
		BG2801	Lab 2a	1			
		BG2802	Lab 2b	1			
		BG3102	Control in Biosystems	3			
		BG3103	Signal Processing	3			
		BG3104	Biomedical Imaging	3			
		BG3105	Biomedical Instrumentation	3			
		BG3801	Lab 3	1			
		BG3880 /	Professional Attachment / Professional	5 /			
		BG3885	Internship	10			
		BG4103	Biomedical Project Design & Management	4			
		BG4102	Medical Device Design	4			
		BG4801	Final Year Project	8			
		UE	HE1001	Microeconomic Principles		3	24 AU 12 AUs from compulsory Year 1 and 2 Economics courses. Remaining 12 AUs from 3 rd and 4 th year Economics courses that yield the highest CGPA
			HE1002	Macroeconomic Principles		3	
			HE1005	Intro to Probability & Statistical Inference		3	
HE2005	Principles of Econometrics		3				
HExxxx	Economics Course 1		3				
HExxxx	Economics Course 2		3				
HExxxx	Economics Course 3		3				
HExxxx	Economics Course 4		4				
Major PE	BGxxxx	BIE PE1	3	9 AU			
	BGxxxx	BIE PE2	3				
	BGxxxx	BIE PE3	3				
General Education Requirements (GER)	GER (Core)	EG0001	Engineers and Society	3	14 AU		
		HW0188	Engineering Communication I	2			
		HW0288	Engineering Communication II	2			
		ML0003	Kickstart your Career Success	1			
		BG0494	Introduction to Data Science and Artificial Intelligence	3			
		GC0001	Introduction to Sustainability	1			
		HY0001	Ethics and Moral Reasoning	1			
	ET0001	Entrepreneurship and Innovation	1				
GER-UE		Elective	5	5 AUs (PA Option)			
TOTAL				140/141 AU			

* Students without 'A' level Physics will take PH1012 Physics A (4AU)

BEng (Chemical and Biomolecular Engineering) and BA (Economics)

(wef AY2019/2020) - updated on 19 May 2020

List of courses that contribute towards BEng (Chemical & Biomolecular)				AU Load		
Discipline Requirement	Core	MH1810	Mathematics 1	3	88 AU (PA) 93 (PI)	
		CH1104	Materials & energy balances	4		
		CH1117	Engineering Mathematics	4		
		CH1102	Introduction to Chemical Engineering in New Era	1		
		CH1108	Thermodynamics	4		
		CH1131	Biomolecular engineering	4		
		CH1801	Lab 1	1		
		CH1802	Lab 2	1		
		CH2010	Engineering Statistics	3		
		CH2102	Organic chemistry and Spectrophotometry	4		
		CH2103	Fluid systems	4		
		CH2104	Heat & mass transfer	4		
		CH2106	Introduction to Multidisciplinary Engineering	2		
		CH2107	Introduction to Computational Thinking	3		
		CH2109	Decision Tools for Business & Engineering	3		
		CH2140	Unit Operation	4		
		CH2801	Lab 2A	2		
		CH2802	Lab 2B	2		
		CH3101	Process Control and Dynamics	4		
		CH3102	Chemical Reaction engineering	4		
		CH3103	Chemical Thermodynamics	3		
		CH3104	Biochemical Engineering	3		
		CH3141	Advanced Unit Operations	3		
	CH3802	Lab 3	3			
	CH3880 /		5 /			
	CH3888	Professional Attachment / Professional Internship	10			
	CH4101	Chemical, Biology and Plant Safety	2			
	CH4801	Final Year Design Project	8			
	UE	HE1001	Microeconomic Principles	3		24 AU 12 AUs from compulsory Year 1 and 2 Economics courses. Remaining 12 AUs from 3 rd and 4 th year Economics courses that yield the highest CGPA
		HE1002	Macroeconomic Principles	3		
		HE1005	Intro to Probability & Statistical Inference	3		
		HE2005	Principles of Econometrics	3		
		HExxxx	Economics Course 1	3		
HExxxx		Economics Course 2	3			
HExxxx		Economics Course 3	3			
HExxxx		Economics Course 4	4			
Major PE	CHxxxx	CBE PE 1	3	9 AU		
	CHxxxx	CBE PE 2	3			
	CHxxxx	CBE PE 3	3			
General Education Requirements (GER)	GER (Core)	EG0001	Engineers and Society	3	14 AU	
		HW0188	Engineering Communication I	2		
		HW0288	Engineering Communication II	2		
		ML0003	Kickstart your Career Success	1		
		EG0001	Introduction to Data Science and Artificial Intelligence	3		
		GC0001	Introduction to Sustainability	1		
		HY0001	Ethics and Moral Reasoning	1		
	ET0001	Entrepreneurship and Innovation	1			
GER-UE		Elective	5	5 AUs (PA Option)		
TOTAL				140AU		