

BEng (Materials Engineering) and BA (Economics) (wef AY2016)

List of courses that contribute towards BEng (Materials Engineering)				AU Load		
Discipline Requirement	Core	PH1011/12	Physics**	3	85 AUs (PA Option) 90 AUs (PI Option)	
		MH1810	Mathematics I	3		
		FE1008	Computing	3		
		MS1012	Materials Physics	3		
		MS1013	Materials Chemistry I	3		
		MS1014	Materials Chemistry II	3		
		MS1015	Materials Science	3		
		MS1016	Thermodynamics of Materials	3		
		MH2811	Mathematics II	3		
		MS2012	Introduction to Manufacturing	3		
		MS2013	Polymers and Composites	3		
		MS2014	Materials Structure and Defects	3		
		MS2015	Mechanical Behaviour of Materials	3		
		MS2016	Phase Transformation and Kinetics	3		
		MS2018	Electronic & Magnetic Properties of Materials	3		
		MS2081	Laboratory IIA	1		
		MS2082	Laboratory IIB	1		
		MS3011	Metallic & Ceramic Materials	3		
		MS3012	Micro/Nanoelectronic Materials Processing	3		
		MS3013	Environmental Effects on Materials	3		
		MS3014	Analysis of Materials	3		
		MS3015	Materials Aspect in Design	3		
		MS3081	Laboratory III	1		
		MS3096/ MS3099	Professional Attachment / Professional Internship	5/ 10		
		MS4012	Quality Control	3		
		MS4013	Biomaterials	3		
		MS4014	Nanomaterials: fundamentals and applications	3		
		MS4089	Final Year Project	8		
	UE	HE1001	Microeconomic Principles	3	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		MS46xx	Materials Engineering PE1	3		12 AUs
		MS46xx	Materials Engineering PE2	3		
		MS46xx	Materials Engineering PE3	3		
	MS46xx	Materials Engineering PE4	3			
General Education Requirements (GER)	GER (Core)	HW0188	Engineering Communication I	2	12 AUs	
		HW0288	Engineering Communication II	2		
		ML0001	Absolute Basics for Career	1		
		ML0002	Career Power Up!	1		
		GC0001	Introduction to Sustainability	1		
		HY0001	Ethics and Moral Reasoning	1		
		ET0001	Entrepreneurship and Innovation	1		
		MS0002	Engineers and Society	3		
	GER - UE		Elective	5		5 AUs (PA Option)
TOTAL				138 AUs		

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