

## AY2021-22 MTEC CGPA Computation

### BEng (Materials Engineering) and BSocSci (Economics) (Students admitted from AY2021/2022)

List of courses that contribute towards BEng (Materials Engineering)				AU Load	
Discipline Requirement	Core	PH1011/12	Physics**	3	75 AU
		MH1810	Mathematics I	3	
		EG1001	Engineer & Society	2	
		MS1008	Introduction to Computational Thinking	3	
		MS1013	Materials Chemistry I	2	
		MS1014	Materials Chemistry II	2	
		MS1017	Introduction to Materials Science	2	
		MS1018	Properties of Materials	2	
		MS1016	Thermodynamics of Materials	3	
		MH2811	Mathematics II	3	
		MS2012	Introduction to Manufacturing	3	
		MS2013	Introduction to Polymer Science	3	
		MS2083	Polymer Lab	1	
		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	
		MS3011	Metallic & Ceramic Materials	3	
		MS3012	Micro/Nanoelectronic Materials Processing	3	
		MS3013	Corrosion of Materials	3	
		MS3082	Design Lab	1	
		MS3014	Analysis of Materials	3	
		MS3015	Materials Aspect in Design	3	
		MS4012	Quality Control	3	
		MS4013	Biomaterials	2	
		MS4014	Nanomaterials: fundamentals and applications	2	
		MS4089	Final Year Project	8	
	BDE	HE1001	Microeconomic I	3	15 AU from compulsory Year 1 and 2 Economics courses. Remaining 3 AU from Year 3 and 4 Economics PE that yield the highest CGPA.
		HE1002	Macroeconomic I	3	
		HE2001	Microeconomics II	3	
		HE2002	Macroeconomics II	3	
		HE2003	Econometrics I	3	
		HExxxx	Economics PE1	3	
		HExxxx	Economics PE2	3	
	Major PE	MS46xx	Materials Engineering PE1	3	11 AU
		MS46xx	Materials Engineering PE2	3	
		MS46xx	Materials Engineering PE3	3	

List of courses that contribute towards BEng (Materials Engineering)				AU Load	
		MS46xx	Materials Engineering PE4	2	
CFICC	Common Core	CC0003	Ethics & Civics in a Multi-Cultural World	2	17 AU
		CC0005	Healthy Living & Wellbeing	3	
		CC0001	Inquiry and Communication in the Interdisciplinary World	2	
		CC0002	Navigating the Digital World	2	
		CC0007	Science & Technology for Humanity	3	
		ML0004	Career and Entrepreneurial Development for the Future World	3	
		CC0006	Sustainability: Society, Economy & Environment	2	
	Foundational Core	MS0003	Introduction to Data Science and Artificial Intelligence	3	15 AU (PI Option) 10 AU (PA Option)
		HW0288	Effective Communication 2	2	
		MS3099/MS3096^	Professional Internship/Professional Attachment	10/5	
TOTAL				136/137** AU	

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

^ Students from U23 intake onwards will do MS3920 Professional Internship or MS3910 Professional Attachment instead