

**Bachelor of Engineering (Materials Engineering)
Second Major in Business (AY2021-22)**

Updated: 1-Sep-21

Academic Unit (AU) Required for graduation

Year of Study	Core	MPE	CC	FC	BDE	Total AU
1	25 / 26 ⁺	-	9	-	6	40 / 41 ⁺
2	16	-	8	3	9	36
3	22	-	-	7	11	40
4	12	9	-	-	9	30
	75 / 76 ⁺	9	17	10	35	146 / 147 ⁺

*Students without H2 Level Physics will take PH1012 (4 AU)

Year 1 - Semester 1

Course Code and Title	Course Type	AU	Pre-Req	Co-Req
CC0003 Ethics & Civics in a Multi-Cultural World	CC	2		
CC0005 Healthy Living & Wellbeing	CC	3		
PH1011 Physics ^{**}	Core	3		
MH1810 Mathematics I ⁺	Core	3		
MS1013 Materials Chemistry I ⁺	Core	2		
MS1008 Introduction to Computational Thinking	Core	3		
MS1017 Introduction to Materials Science	Core	2		
AB1201 Financial Management	BDE	3		
Total		21		

* Students who obtained at least 3 'A's in H2 level subjects and at least grade 'E' or 'C6' in General Paper (GP) or Knowledge Inquiry (KI) will be eligible for exemption if a grade 'A' is obtained in the corresponding subject at H2 level.

** Students without H2 Level Physics will take PH1012 Physics A (4 AU)

Year 1 - Semester 2

Course Code and Title	Course Type	AU	Pre-Req	Co-Req
CC0001 Inquiry and Communication in the Interdisciplinary World	CC	2		
CC0002 Navigating the Digital World	CC	2		
EG1001 Engineer & Society	Core	2		
MS1014 Materials Chemistry II	Core	2		
MS1018 Properties of Materials	Core	2		
MS1016 Thermodynamics of Materials	Core	3		MS1017
MS2013 Introduction to Polymer Science	Core	3		MS1014/MS1016
AB1501 Marketing	BDE	3		
Total		19		

Year 2 - Semester 1

Course Code and Title	Course Type	AU	Pre-Req	Co-Req
CC0007 Science & Technology for Humanity	CC	3		
MH2811 Mathematics II	Core	3		MH1810
MS2014 Materials Structure and Defects	Core	3	MS1017	MS1018
MS2016 Phase Transformation and Kinetics	Core	3		MS1016
MS2083 Polymer Lab	Core	1	MS2013	
AD1102 Financing Account	BDE	3		
BDE1	BDE	3		
Total		19		

Year 2 - Semester 2		
Course Code and Title	Course Type	AU
ML0004 Career and Entrepreneurial Development for the Future World	CC	2
CC0006 Sustainability: Society, Economy & Environment	CC	3
MS0003 Introduction to Data Science and Artificial Intelligence	FC	3
MS2012 Introduction to Manufacturing Processes	Core	3
MS2015 Mechanical Behaviour of Materials	Core	3
AB1601 Organisation Behaviour & Design	BDE	3
Total		17

Pre-Req

Co-Req

MS1008

Year 3 - Semester 1		
Course Code and Title	Course Type	AU
MS2018 Electronic & Magnetic Properties of Materials	Core	3
MS3011 Metallic & Ceramic Materials	Core	3
MS3012 Micro/Nanoelectronic Materials Processing	Core	3
MS3082 Design Lab	Core	1
AD2101 Management Accounting	BDE	3
AB1301 Business Law	BDE	3
BDE2	BDE	2
Total		18

Pre-Req

Co-Req

MS2016

Year 3 - Semester 2		
Course Code and Title	Course Type	AU
HW0288 Effective Communication 2	FC	2
MS3013 Corrosion of Materials	Core	3
MS3014 Analysis of Materials	Core	3
MS3015 Materials Aspects in Design	Core	3
MS4012 Quality Control	Core	3
BF2219 Investments	BDE	3
Total		17

Pre-Req

Co-Req

MS2013/MS3011

MS3082 MS2013/MS3011

Year 3 - Special Term		
Course Code and Title	Course Type	AU
MS3096 Professional Attachment	FC	5
Total		5

Pre-Req

Co-Req

Year 4 - Semester 1		
Course Code and Title	Course Type	AU
MS4089 Final Year Project	Core	4
MS4013 Biomaterials	Core	2
MPE1	MPE	3
MPE2	MPE	3
BE2602 Management in Principles, Skills & Competencies	BDE	3
Total		15

Pre-Req

Co-Req

Year 4 Standing

MS2013

MS3011

Year 4 - Semester 2		
Course Code and Title	Course Type	AU
MS4089 Final Year Project	Core	4

Pre-Req

Co-Req

Year 4 Standing

MS4014 Nanomaterials: Fundamentals And Applications	Core	2
MPE3	MPE	3
BE1402 Business Operations and Process	BDE	3
BM2502 Consumer Insights	BDE	3
Total		15

MS2018/MS3012/MS3013