

Bachelor of Engineering (Materials Engineering)

2nd Major in Business (AY2018-19)

Professional Internship (PI) Option

ACADEMIC UNIT (AU) REQUIRED FOR GRADUATION

2nd Major in Business Programme	Year of Study	Core	Core Electives	GER			Unrestricted Electives	Total AU	
				Core	Electives				
					BM	LA	STS		BUS [^]
Year 1 Admission	1	24/25 ⁺	-	1	-	-	-	14	39/40 ⁺
	2	32	-	9	-	-	-	-	41
	3	23	-	1	-	-	-	6	30
	4	11	12	3	-	-	-	12	38
	All Years								148/149 ⁺

[^] Business

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

Description of Abbreviation

BM – Business & Management

LA – Liberal Arts

STS – Science, Technology & Society

YEAR 1 2nd Major in Business – PI Option

Course Code and Title	Type	AU
YEAR 1 SEMESTER 1		
HW0001 English Proficiency		0
GC0001 Introduction to Sustainability: Multidisciplinary Approaches and Solutions	GER Core	1
MH1810 Mathematics I*	Core	3
MS1013 Materials Chemistry*	Core	3
PH1011 Physics**	Core	3
AD1101 Financial Accounting	Unrestricted Elective (BUS)	4
AB1201 Financial Management	Unrestricted Elective (BUS)	3
TOTAL		17

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

* 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.

YEAR 1 SEMESTER 2		
MS1008 Introduction to Computational Thinking	Core	3
MS1012 Materials Physics	Core	3
MS1014 Materials Chemistry II	Core	3
MS1015 Materials Science	Core	3
MS1016 Thermodynamics of Materials	Core	3
AB1501 Marketing	Unrestricted Elective (BUS)	3
BE1401 Business Operations and Process	Unrestricted Elective (BUS)	4
TOTAL		22

YEAR 2 2nd Major in Business – PI Option

Course Code and Title	Type	AU
YEAR 2 SEMESTER 1		
HY0001 Ethics and Moral Reasoning	GER Core	1
HW0188 Engineering Communication I	GER Core	2
MH2811 Mathematics II	Core	3
MS2012 Introduction to Manufacturing Processes	Core	3
MS2014 Materials Structure and Defects	Core	3
MS2016 Phase Transformations and Kinetics	Core	3
MS2082 Laboratory IIB	Core	1
TOTAL		16

YEAR 2 SEMESTER 2		
MS2013 Polymers and Composites	Core	3
MS2015 Mechanical Behaviour of Materials	Core	3
MS2018 Electronic & Magnetic Properties of Materials	Core	3
MS2081 Laboratory IIA	Core	1
HW0288 Engineering Communication II	GER Core	2
MS3011 Metallic & Ceramic Materials	Core	3
MS3012 Micro/Nanoelectronic Materials Processing	Core	3
MS3014 Analysis of Materials	Core	3
MS0003 Introduction to Data Science and Artificial Intelligence	GER Core	3
ML0003 Kickstart your Career Success	GER Core	1
TOTAL		25

YEAR 3 2nd Major in Business – PI Option

Course Code and Title	Type	AU
YEAR 3 SEMESTER 1		
ET0001 Enterprise and Innovation	GER Core	1
MS3013 Environmental Effects on Materials	Core	3
MS3015 Materials Aspects in Design	Core	3
MS3081 Laboratory III	Core	1
MS4013 Biomaterials	Core	3
MS4014 Nanomaterials: Fundamentals and Applications	Core	3
AB1301 Business Law	Unrestricted Elective (BUS)	3
AB1601 Organisational Behaviour & Design	Unrestricted Elective (BUS)	3
TOTAL		21

YEAR 3 SEMESTER 2		
MS3099 Professional Internship	Core	10
TOTAL		10

YEAR 4 2nd Major in Business – PI Option

Course Code and Title	Type	AU
YEAR 4 SEMESTER 1		
EG0001 Engineers & Society	GER Core	3
MS4089 Final Year Project	Core	4
Major Prescribed Elective 1	Core Elective	3
Major Prescribed Elective 2	Core Elective	3
Advanced Business Course 1	Unrestricted Elective (BUS)	4
Advanced Business Course 2	Unrestricted Elective (BUS)	4
TOTAL		21

YEAR 4 SEMESTER 2		
MS4012 Quality Control	Core	3
MS4089 Final Year Project	Core	4
Major Prescribed Elective 3	Core Elective	3
Major Prescribed Elective 4	Core Elective	3
Advanced Business Course 3	Unrestricted Elective (BUS)	4
TOTAL		17