

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

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 | 11 | 38 |
| 3 | 22 | - | - | 7 | 10 | 39 |
| 4 | 12 | 9 | - | - | 9 | 30 |
| | 75 / 76 ⁺ | 9 | 17 | 10 | 36 | 147 / 148 ⁺ |

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

Year 1 - Semester 1

| Course Code and Title | Course Type | AU |
|--|-------------|-----------|
| 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 |
|---|-------------|-----------|
| 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 |
| MS2013 Introduction to Polymer Science | Core | 3 |
| AB1501 Marketing | BDE | 3 |
| Total | | 19 |

Year 2 - Semester 1

| Course Code and Title | Course Type | AU |
|--|-------------|-----------|
| CC0007 Science & Technology for Humanity | CC | 3 |
| MH2811 Mathematics II | Core | 3 |
| MS2014 Materials Structure and Defects | Core | 3 |
| MS2016 Phase Transformation and Kinetics | Core | 3 |
| MS2083 Laboratory on Structure-Property Relationship in Polymers | Core | 1 |
| AD1102 Financing Account | BDE | 3 |
| BF2227 Commodities Markets | 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 |
| BF3214 Commodities Trading | BDE | 2 |
| BE1402 Business Operations and Process | BDE | 3 |
| BDE1 | BDE | 2 |
| Total | | 21 |

| 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 |
| MS3013 Corrosion of Materials | Core | 3 |
| MS3082 Design Lab | Core | 1 |
| AD2102 Management Accounting | BDE | 3 |
| Total | | 16 |

| Year 3 - Semester 2 | | |
|--|-------------|----|
| Course Code and Title | Course Type | AU |
| HW0288 Effective Communication | FC | 2 |
| MS3014 Analysis of Materials | Core | 3 |
| MS3015 Materials Aspects in Design | Core | 3 |
| MS4012 Quality Control | Core | 3 |
| BF2226 Trade Incoterms and Ship Chartering | BDE | 3 |

| | | |
|--------------|-----|-----------|
| BDE2 | BDE | 3 |
| Total | | 17 |

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

| Year 4 - Semester 1 | | |
|---|-------------|-----------|
| Course Code and Title | Course Type | AU |
| MS4089 Final Year Project | Core | 4 |
| MS4013 Biomaterials | Core | 2 |
| MPE1 | MPE | 3 |
| BF3226 Strategic Management in Commodity Market | BDE | 2 |
| BF2302 International Tax and Trading Law | BDE | 2 |
| Total | | 13 |

| Year 4 - Semester 2 | | |
|---|-------------|------------|
| Course Code and Title | Course Type | AU |
| MS4089 Final Year Project | Core | 4 |
| MS4014 Nanomaterials: Fundamentals And Applications | Core | 2 |
| BF3213 Enterprise Risk Management in Commodity Market | BDE | 2 |
| BF3212 Trade, Structured & Supply Chain Finance | BDE | 2 |
| MPE2 | MPE | 3 |
| MPE3 | MPE | 3 |
| Total | | 16 |
| Total AU for Graduation | | 147 |