

AU Requirement for Aerospace Engineering with Second Major in Business (ASBM)  
 Students admitted from AY2020/2021

| Year<br>of<br>Study | Number of Academic Units (AUs) |          |                                     |                          |    |     |                                     |    |       |
|---------------------|--------------------------------|----------|-------------------------------------|--------------------------|----|-----|-------------------------------------|----|-------|
|                     | Major Requirements             |          | General Education Requirement (GER) |                          |    |     |                                     |    | Total |
|                     | Core                           | Major PE | GER Core                            | GER Prescribed Electives |    |     |                                     | UE |       |
|                     |                                |          |                                     | BM                       | LA | STS | Any<br>Category<br>(BM, LA,<br>STS) |    |       |
| 1                   | 25                             | 0        | 8                                   |                          |    |     |                                     | 14 | 47    |
| 2                   | 23                             | 0        | 4                                   |                          |    |     |                                     | 6  | 33    |
| 3                   | 28                             | 0        | 2                                   |                          |    |     |                                     | 0  | 30    |
| 4                   | 20                             | 6        | 0                                   |                          |    |     |                                     | 12 | 38    |
| Total               | 96                             | 6        | 14                                  | 0                        |    |     |                                     | 32 | 148   |

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| Course Code and Title   | Type | AU            | Pre-requisite/ Remarks   |
|---|------|---------------|--|
| <b>YEAR 1 SEMESTER 1</b>  |      |               |  |
| MH1810 Mathematics I  | C    | 3             |  |
| PH1011 Physics<br><br>OR PH1012 Physics A                       | C    | 3<br><br>OR 4 | Pass A Level Physics<br>PH1012 is only for Poly<br>Direct Entry Students and JC<br>students without A Level<br>Physics |
| MA2001 Mechanics of Materials                                   | C    | 3             |  |
| Engineering Fundamentals 2                                      | C    | 3             |  |
| AD1101 Financial Management                                     | UE   | 4             |  |
| AB1201 Financial Management                                     | UE   | 3             |  |
| HW0188 Effective Communication                                  | GC   | 2             | HW0001 (co-requisite)  |
| GC0001 Sustainability: Seeing Through The Haze                  | GC   | 1             |  |
| ET0001 Enterprise & Innovation                                  | GC   | 1             |  |
| HY0001 Ethics and Moral Reasoning                               | GC   | 1             |  |
| <b>Total</b>  |      | <b>24</b>     |  |
| <b>YEAR 1 SEMESTER 2</b>  |      |               |  |
| MH1811 Mathematics II   | C    | 3             |  |
| MA1001 Dynamics   | C    | 3             | Having read<br>PH1011/PH1012/CY1305 and<br>MH1810/MH2812/ CY1201   |
| MA1008 Introduction to Computational Thinking                   | C    | 3             |  |
| MA1700 Aerospace Discovery Course                               | C    | 1             |  |
| MA2003 Introduction to Thermo-fluids                            | C    | 3             |  |
| EG0001 Engineers & Society                                      | GC   | 3             |  |
| AB1501 Marketing  | UE   | 3             |  |
| BE1401 Business Operations and Processes                        | UE   | 4             |  |
| <b>Total</b>  |      | <b>23</b>     |  |
| <b>YEAR 2 SEMESTER 1</b>  |      |               |  |
| MA2005 Engineering Graphics                                     | C    | 3             |  |
| MA2006 Engineering Mathematics                                  | C    | 3             | FE1006/MH1810 and<br>FE1007/MH1811 or CY1201<br>and CY1203 or<br>MA1003/MH2812   |
| MA2072 Laboratory Experiments (AE)                              | C    | 1             |  |
| MA2701 Flight Performance                                       | C    | 2             | MA1001 & MA1700  |
| MA3700 Aircraft Structures I                                    | C    | 3             | MA2001   |
| AB1301 Business Law   | UE   | 3             |  |
| ML0003 Kickstart Your Career Success                            | GC   | 1             |  |
| <b>Total</b>  |      | <b>16</b>     |  |
| <b>YEAR 2 SEMESTER 2</b>  |      |               |  |
| MA2007 Thermodynamics   | C    | 3             | MA2003   |
| MA2700 Aerospace Materials & Manufacturing Processes            | C    | 3             |  |
| MA2079 Engineering Innovation and Design                        | C    | 2             | Semester 2 with 1 week in<br>Special Term  |
| MA3006 Fluid Mechanics  | C    | 3             | MA2003   |
| AB1601 Organisation Behaviour & Design                          | UE   | 3             |  |
| MA0218 Introduction to Data Science and Artificial Intelligence | GC   | 3             |  |
| <b>Total</b>  |      | <b>17</b>     |  |

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| <b>YEAR 3 SEMESTER 1</b>                        |    |            |   |
|---|----|------------|---|
| MA3003 Heat Transfer                            | C  | 3          | MA2007  |
| MA3072 Mechanical Experiments                   | C  | 1          |   |
| MA3701 Aerodynamics                             | C  | 3          | MA2003  |
| MA3702 Aircraft Propulsion                      | C  | 3          | MA2007  |
| MA3703 Flight Dynamics                          | C  | 2          | MA1001 & MA1700   |
| MA3704 Aircraft Electrical Devices              | C  | 3          |   |
| MA3705 Aerospace Control Theory                 | C  | 3          | MA3703 and Having Read MA2006   |
| HW0288 Engineering Communication                | GC | 2          | HW0188  |
| <b>Total</b>                                    |    | <b>20</b>  |   |
| <b>YEAR 3 SEMESTER 2</b>                        |    |            |   |
| MA3080 Professional Internship                  | C  | 10         | Students may do MA3075 Professional Attachment in Year 2 Special Semester (5 AU) and UE courses in any semester (5 AU) instead of MA3080. |
| <b>Total</b>                                    |    | <b>10</b>  |   |
| <b>YEAR 4 SEMESTER 1</b>                        |    |            |   |
| MA4079 Final Year Project                       | C  | 4          | Year 4 standing, 2 semesters  |
| MA4701 Aircraft Design                          | C  | 3          | MA3701, MA3702 & MA3703   |
| MA4702 Aircraft Structures II                   | C  | 3          | MA2001, MA3700 & MA3701   |
| MA4704 Aeroelasticity                           | C  | 3          | MA3700 & MA3701   |
| MA4705 Aircraft Navigation and Flight Computers | C  | 3          | MH1811/FE1007/CY1203/CY1602/MH2812/MH2810   |
| Advanced/General Business Course 1              | UE | 4          |   |
| <b>Total</b>                                    |    | <b>20</b>  |   |
| <b>YEAR 4 SEMESTER 2</b>                        |    |            |   |
| MA4079 Final Year Project                       | C  | 4          | Year 4 standing, 2 semesters  |
| MA48XX Major-PE 1                               | PE | 3          |   |
| MA48XX Major-PE 2                               | PE | 3          |   |
| Advanced/General Business Course 2              | UE | 4          |   |
| Advanced/General Business Course 3              | UE | 4          |   |
| <b>Total</b>                                    |    | <b>18</b>  |   |
| <b>GRAND TOTAL (Year 1 to 4)</b>                |    | <b>148</b> |   |

Advanced/General Business Courses: Choose 3  
 BF2201 Investments  
 BM2501 Market Behaviour  
 BM2502 Market Intelligence  
 BE2601 Management Principles, Skills and Competencies