

# Bachelor of Engineering (Honours) (3707)

## Mechanical & Manufacturing Engineering (MANFBH)

### T1 Entry 2023 Sample Plan



**UNSW**  
SYDNEY

| Year 1 |                                                                     | Year 2 |                                                                 | Year 3 |                                                                   | Year 4 |                                                                |
|--------|---------------------------------------------------------------------|--------|-----------------------------------------------------------------|--------|-------------------------------------------------------------------|--------|----------------------------------------------------------------|
| Term 1 | <b>DESN1000</b><br>Engineering Design and Innovation                | Term 1 | <b>MATH2018 OR MATH2019</b><br>Mathematics 2D (2E)              | Term 1 | <b>Discipline Elective Course</b>                                 | Term 1 | <b>MANF4150</b><br>Design of Intelligent Manufacturing Systems |
|        | <b>PHYS1121 OR PHYS1131</b> (Higher)<br>Physics 1A                  |        | <b>MATH2089</b><br>Numerical Methods and Statistics             |        | <b>MECH3110</b><br>Mechanical Design 1                            |        | <b>MANF4430</b><br>Reliability and Maintenance Engineering     |
|        | <b>MATH1131 OR MATH1141</b> (Higher)<br>Mathematics 1A              |        | <b>MMAN2700</b><br>Thermodynamics                               |        | <b>MANF4100</b><br>Design and Analysis of Product-Process Systems |        | <b>MMAN4951 (4 UoC)</b><br>Research Thesis A                   |
| Term 2 | <b>MATH1231 OR MATH1241</b> (Higher)<br>Mathematics 1B              | Term 2 | <b>MMAN2300</b><br>Engineering Mechanics 2                      | Term 2 | <b>MANF3510</b><br>Process Technology and Automation              | Term 2 | <b>MANF4611</b><br>Process Modelling and Simulation            |
|        | <b>MMAN1130</b><br>Design and Manufacturing                         |        | <b>ENGG2400</b><br>Mechanics of Solids 1                        |        | <b>DESN3000</b><br>Strategic Design Innovation                    |        | <b>General Education Course</b>                                |
|        | <b>ENGG1811 OR COMP1911 OR COMP1511</b><br>Programming Fundamentals |        | <b>Free Elective Course</b>                                     |        | <b>MMAN3200</b><br>Linear Systems and Control                     |        | <b>MMAN4952 (4 UoC)</b><br>Research Thesis B                   |
| Term 3 | <b>ENGG1300</b><br>Engineering Mechanics                            | Term 3 | <b>DESN2000</b><br>Engineering Design and Professional Practice | Term 3 | <b>MMAN4400</b><br>Engineering Management                         | Term 3 | <b>Discipline Elective Course</b>                              |
|        | <b>*Free Elective Course</b>                                        |        | <b>ENGG2500</b><br>Fluid Mechanics for Engineers                |        | <b>General Education Course</b>                                   |        | <b>MMAN4953 (4 UoC)</b><br>Research Thesis C                   |
|        | <b>ELEC1111</b><br>Electrical Circuit Fundamentals                  |        |                                                                 |        |                                                                   |        |                                                                |

#### NOTES

Compulsory Training Component: There is a program requirement of 60 days approved [Industrial Training](#) ENGG4999

**This is intended as a guide only. Courses do not need to be studied in the exact structure that they appear here.**

**\*MATS1110 is recommended Free Elective Course to be attempted during Year 1.**

# Bachelor of Engineering (Honours) (3707)

## Mechanical & Manufacturing Engineering (MANFBH)

### T2 Entry 2023 Sample Plan



**UNSW**  
SYDNEY

| Year 1 |                                                                 | Year 2 |                                                          | Year 3 |                                                            | Year 4 |                                                         |
|--------|-----------------------------------------------------------------|--------|----------------------------------------------------------|--------|------------------------------------------------------------|--------|---------------------------------------------------------|
| Term 2 | ENGG1811 OR COMP1911<br>OR COMP1511<br>Programming Fundamentals | Term 2 | MMAN1130<br>Design and Manufacturing                     | Term 2 | MANF3510<br>Process Technology and Automation              | Term 2 | MANF4611<br>Process Modelling and Simulation            |
|        | PHYS1121 OR PHYS1131 (Higher)<br>Physics 1A                     |        | MMAN2300<br>Engineering Mechanics 2                      |        | DESN3000<br>Strategic Design Innovation                    |        | General Education Course                                |
|        | MATH1131 OR MATH1141 (Higher)<br>Mathematics 1A                 |        | ENGG2400<br>Mechanics of Solids 1                        |        | MMAN3200<br>Linear Systems and Control                     |        | MMAN4951 (4 UoC)<br>Research Thesis A                   |
| Term 3 | *Free Elective Course                                           | Term 3 | DESN2000<br>Engineering Design and Professional Practice | Term 3 | MMAN4400<br>Engineering Management                         | Term 3 | Discipline Elective Course                              |
|        | MATH1231 OR MATH1241 (Higher)<br>Mathematics 1B                 |        | ENGG2500<br>Fluid Mechanics for Engineers                |        | MATH2089<br>Numerical Methods and Statistics               |        | Discipline Elective Course                              |
|        | ENGG1300<br>Engineering Mechanics                               |        |                                                          |        | General Education Course                                   |        | MMAN4952 (4 UoC)<br>Research Thesis B                   |
| Term 1 | ELEC1111<br>Electrical Circuit Fundamentals                     | Term 1 | MMAN2700<br>Thermodynamics                               | Term 1 | MANF4100<br>Design and Analysis of Product-Process Systems | Term 1 | MANF4150<br>Design of Intelligent Manufacturing Systems |
|        | MATH2018 OR MATH2019<br>Mathematics 2D (2E)                     |        | MECH3110<br>Mechanical Design 1                          |        | MANF4430<br>Reliability and Maintenance Engineering        |        | MMAN4953 (4 UoC)<br>Research Thesis C                   |
|        | DESN1000<br>Engineering Design and Innovation                   |        |                                                          |        | Free Elective Course                                       |        |                                                         |

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## Bachelor of Engineering (Honours) (3707)

Mechanical & Manufacturing Engineering (MANFBH)

## T3 Entry 2023 Sample Plan



| Year 1 |                                                                     | Year 2 |                                                                 | Year 3 |                                                                   | Year 4 |                                                                |
|--------|---------------------------------------------------------------------|--------|-----------------------------------------------------------------|--------|-------------------------------------------------------------------|--------|----------------------------------------------------------------|
| Term 3 | <b>DESN1000</b><br>Engineering Design and Innovation                | Term 3 | <b>DESN2000</b><br>Engineering Design and Professional Practice | Term 3 | <b>MMAN4400</b><br>Engineering Management                         | Term 3 | <b>Discipline Elective Course</b>                              |
|        | <b>PHYS1121 OR PHYS1131</b> (Higher)<br>Physics 1A                  |        | <b>ENGG2500</b><br>Fluid Mechanics for Engineers                |        | <b>Discipline Elective Course</b>                                 |        | <b>General Education Course</b>                                |
|        | <b>MATH1131 OR MATH1141</b> (Higher)<br>Mathematics 1A              |        | <b>ENGG1300</b><br>Engineering Mechanics                        |        | <b>General Education Course</b>                                   |        | <b>MMAN4951 (4 UoC)</b><br>Research Thesis A                   |
| Term 1 | <b>MATH1231 OR MATH1241</b> (Higher)<br>Mathematics 1B              | Term 1 | <b>MATH2018 OR MATH2019</b><br>Mathematics 2D (2E)              | Term 1 | <b>MECH3110</b><br>Mechanical Design 1                            | Term 1 | <b>MANF4150</b><br>Design of Intelligent Manufacturing Systems |
|        | <b>ELEC1111</b><br>Electrical Circuit Fundamentals                  |        | <b>MATH2089</b><br>Numerical Methods and Statistics             |        | <b>MANF4100</b><br>Design and Analysis of Product-Process Systems |        | <b>MANF4430</b><br>Reliability and Maintenance Engineering     |
|        | <b>Free Elective Course</b>                                         |        | <b>MMAN2700</b><br>Thermodynamics                               |        |                                                                   |        | <b>MMAN4952 (4 UoC)</b><br>Research Thesis B                   |
| Term 2 | <b>MMAN1130</b><br>Design and Manufacturing                         | Term 2 | <b>MMAN2300</b><br>Engineering Mechanics 2                      | Term 2 | <b>MANF3510</b><br>Process Technology and Automation              | Term 2 | <b>MANF4611</b><br>Process Modelling and Simulation            |
|        | <b>ENGG1811 OR COMP1911 OR COMP1511</b><br>Programming Fundamentals |        | <b>ENGG2400</b><br>Mechanics of Solids 1                        |        | <b>DESN3000</b><br>Strategic Design Innovation                    |        | <b>MMAN4953 (4 UoC)</b><br>Research Thesis C                   |
|        | <b>*Free Elective Course</b>                                        |        |                                                                 |        | <b>MMAN3200</b><br>Linear Systems and Control                     |        |                                                                |

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