

# Bachelor of Engineering (Honours) (3707)

## Surveying (GMATDH)

### T1 Entry 2023 Sample Plan



| Year 1 |                                                         | Year 2 |                                                                   | Year 3 |                                                        | Year 4 |                                                                     |
|--------|---------------------------------------------------------|--------|-------------------------------------------------------------------|--------|--------------------------------------------------------|--------|---------------------------------------------------------------------|
| Term 1 | <b>DESN1000</b><br>Engineering Design and Innovation    | Term 1 | <b>GMAT2500</b><br>Surveying Computations A                       | Term 1 | <b>GMAT3100</b><br>Surveying & Application Design      | Term 1 | <b>CVEN4951</b><br>(4 UoC)(Research) Thesis A^                      |
|        | <b>PHYS1121 OR PHYS1131</b><br>(Higher) Physics 1A      |        | <b>ENGG2500</b><br>Fluid Mechanics for Engineers                  |        | <b>GMAT3150</b><br>Field Projects 1                    |        | <b>CVEN3501</b><br>Water Resources Engineering                      |
|        | <b>MATH1131 OR MATH1141</b><br>(Higher) Mathematics 1A  |        | <b>MATH2018 OR MATH2019</b><br>Mathematics 2D (2E)                |        | <b>GMAT3220</b><br>Geospatial Information Systems      |        | <b>Discipline Elective Course</b>                                   |
| Term 2 | <b>MATH1231 OR MATH1241</b><br>(Higher) Mathematics 1B  | Term 2 | <b>DESN2000</b><br>Engineering Design and Professional Practice   | Term 2 | <b>GMAT3700</b><br>Geodetic Positioning & Applications | Term 2 | <b>GMAT4060 (6 UoC) OR CVEN4952</b><br>(4 UoC)(Research)Thesis B    |
|        | <b>Free Elective Course</b>                             |        | <b>CVEN2002</b><br>Engineering Computations                       |        | <b>Free Elective Course</b>                            |        | <b>Discipline Elective Course</b>                                   |
|        | <b>GMAT1110</b><br>Surveying and Geospatial Engineering |        | <b>GMAT2700</b><br>Foundations of Geodesy & Geospatial Ref Frames |        |                                                        |        | <b>General Education Cours</b>                                      |
| Term 3 | <b>General Education Course</b>                         | Term 3 | <b>GMAT2120</b><br>Surveying and Geospatial Technology            | Term 3 | <b>GMAT3420</b><br>Cadastral Surveying & Land Law      | Term 3 | <b>Discipline Elective Course</b>                                   |
|        | <b>ENGG1811</b><br>Computing for Engineers              |        | <b>GMAT2550</b><br>Surveying Computations B                       |        | <b>CVEN3101</b><br>Engineering Operations and Control  |        | <b>GMAT4150</b><br>Field Projects 2                                 |
|        |                                                         |        |                                                                   |        | <b>GMAT3500</b><br>Remote Sensing & Photogram          |        | <b>GMAT4061 (6 UoC) OR CVEN4953</b><br>(4 UoC)(Research)Thesis B/C^ |

#### NOTES

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

^Only required if students are choosing the Research Thesis stream. Otherwise, enrol into GMAT4060 AND GMAT4061.

**Recommended Discipline Elective Courses: GMAT4400, GMAT4220.**

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

# Bachelor of Engineering (Honours) (3707)

## Surveying (GMATDH)

### T2 Entry 2023 Sample Plan



| Year 1 |                                                         | Year 2 |                                                                   | Year 3 |                                                        | Year 4 |                                                                 |
|--------|---------------------------------------------------------|--------|-------------------------------------------------------------------|--------|--------------------------------------------------------|--------|-----------------------------------------------------------------|
| Term 2 | <b>ENGG1811</b><br>Computing for Engineers              | Term 2 | <b>DESN2000</b><br>Engineering Design and Professional Practice   | Term 2 | <b>GMAT3700</b><br>Geodetic Positioning & Applications | Term 2 | <b>GMAT4060 (6 UoC) OR CVEN4951 (4 UoC)(Research)Thesis A ^</b> |
|        | <b>GMAT1110</b><br>Surveying and Geospatial Engineering |        | <b>CVEN2002</b><br>Engineering Computations                       |        | <b>Free Elective Course</b>                            |        | <b>Discipline Elective Course</b>                               |
| Term 3 |                                                         | Term 3 | <b>GMAT2700</b><br>Foundations of Geodesy & Geospatial Ref Frames | Term 3 |                                                        | Term 3 | <b>General Education Course</b>                                 |
|        | <b>DESN1000</b><br>Engineering Design and Innovation    |        | <b>GMAT2120</b><br>Surveying and Geospatial Technology            |        | <b>CVEN3101</b><br>Engineering Operations and Control  |        | <b>GMAT4061 (6 UoC) OR CVEN4952 (4 UoC)(Research)Thesis B^</b>  |
|        | <b>MATH1131 OR MATH1141</b><br>(Higher) Mathematics 1A  |        | <b>GMAT2550</b><br>Surveying Computations B                       |        | <b>GMAT3500</b><br>Remote Sensing & Photogram          |        | <b>GMAT4150</b><br>Field Projects 2                             |
| Term 1 | <b>PHYS1121 OR PHYS1131</b><br>(Higher) Physics 1A      | Term 1 |                                                                   | Term 1 | <b>GMAT3420</b><br>Cadastral Surveying & Land Law      | Term 1 | <b>Discipline Elective Course</b>                               |
|        | <b>MATH1231 OR MATH1241</b><br>(Higher) Mathematics 1B  |        | <b>MATH2018 OR MATH2019</b><br>Mathematics 2D (2E)                |        | <b>GMAT3220</b><br>Geospatial Information Systems      |        | <b>CVEN3501</b><br>Water Resources Engineering                  |
|        | <b>GMAT2500</b><br>Surveying Computations A             |        | <b>ENGG2500</b><br>Fluid Mechanics for Engineers                  |        | <b>GMAT3150</b><br>Field Projects 1                    |        | <b>Discipline Elective Course</b>                               |
|        | <b>General Education Course</b>                         |        | <b>GMAT3100</b><br>Surveying & Application Design                 |        | <b>Free Elective Course</b>                            |        | <b>CVEN4953</b><br>(4 UoC)(Research) Thesis C^                  |

#### NOTES

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

^Only required if students are choosing the Research Thesis stream. Otherwise, enrol into GMAT4060 AND GMAT4061.

**Recommended Discipline Elective Courses: GMAT4400, GMAT4220.**

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# Bachelor of Engineering (Honours) (3707)

## Surveying (GMATDH)

### T3 Entry 2023 Sample Plan



| Year 1 |                                                         | Year 2 |                                                                   | Year 3 |                                                        | Year 4 |                                                                            |
|--------|---------------------------------------------------------|--------|-------------------------------------------------------------------|--------|--------------------------------------------------------|--------|----------------------------------------------------------------------------|
| Term 3 | <b>MATH1131 OR MATH1141</b><br>(Higher) Mathematics 1A  | Term 3 | <b>GMAT2550</b><br>Surveying Computations B                       | Term 3 | <b>GMAT2120</b><br>Surveying and Geospatial Technology | Term 3 | <b>GMAT4061 (6 UoC) OR CVEN4951 (4 UoC)</b> (Research) Thesis B/A ^        |
|        | <b>DESN1000</b><br>Engineering Design and Innovation    |        | <b>CVEN3101</b><br>Engineering Operations and Control             |        | <b>GMAT3420</b><br>Cadastral Surveying & Land Law      |        | <b>GMAT4150</b><br>Field Projects 2                                        |
|        | <b>PHYS1121 OR PHYS1131</b><br>(Higher) Physics 1A      |        | <b>General Education Course</b>                                   |        | <b>GMAT3500</b><br>Remote Sensing & Photogram          |        | <b>Free Elective Course</b>                                                |
| Term 1 | <b>MATH1231 OR MATH1241</b><br>(Higher) Mathematics 1B  | Term 1 | <b>GMAT2500</b><br>Surveying Computations A                       | Term 1 | <b>GMAT3220</b><br>Geospatial Information Systems      | Term 1 | <b>CVEN4952 OR Discipline Elective Course (4 UoC)</b> (Research) Thesis B^ |
|        | <b>ENGG1811</b><br>Computing for Engineers              |        | <b>MATH2018 OR MATH2019</b><br>Mathematics 2D (2E)                |        | <b>GMAT3150</b><br>Field Projects 1                    |        | <b>CVEN3501</b><br>Water Resources Engineering                             |
|        | <b>Free Elective Course</b>                             |        | <b>ENGG2500</b><br>Fluid Mechanics for Engineers                  |        | <b>GMAT3100</b><br>Surveying & Application Design      |        | <b>General Education Course</b>                                            |
| Term 2 | <b>GMAT1110</b><br>Surveying and Geospatial Engineering | Term 2 | <b>GMAT2700</b><br>Foundations of Geodesy & Geospatial Ref Frames | Term 2 | <b>GMAT3700</b><br>Geodetic Positioning & Applications | Term 2 | <b>CVEN4953 (4 UoC)</b> (Research) Thesis C^                               |
|        | <b>CVEN2002</b><br>Engineering Computations             |        | <b>DESN2000</b><br>Engineering Design and Professional Practice   |        | <b>GMAT4060 (6 UoC) OR Discipline Elective Course</b>  |        | <b>Discipline Elective Course</b>                                          |
|        |                                                         |        |                                                                   |        |                                                        |        | <b>Discipline Elective Course</b>                                          |

#### NOTES

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

**^Only required if students are choosing the Research Thesis stream. Otherwise, enrol into GMAT4060 AND GMAT4061. Students who would like to complete GMAT4060 will need a requisite waiver to complete it at the same time as GMAT3700**  
**Recommended Discipline Elective Courses: GMAT4400, GMAT4220.**  
**This is intended as a guide only. Courses do not need to be studied in the exact structure that they appear here.**