



## Bachelor of Engineering (Honours) (Domestic students)

|                                  |                             |                                                           |
|----------------------------------|-----------------------------|-----------------------------------------------------------|
| <b>Program code</b>              | <b>Entry requirements</b>   | <b>Prerequisites</b>                                      |
| 1546                             | 70.00                       | NIL                                                       |
| <b>Available at</b>              | ATAR/RANK 2024              | <b>Assumed knowledge</b>                                  |
| Gold Coast Campus                | (more)                      | Any General or Applied English subject (Units 3 and 4, C) |
| <b>Duration</b>                  | <b>Commencing in</b>        | Mathematical Methods (Units 3 and 4, C)                   |
| 4 years full-time                | Trimester 1 and Trimester 2 |                                                           |
| 8 years part-time                |                             |                                                           |
| <b>Credit points</b>             |                             |                                                           |
| 320                              |                             |                                                           |
| <b>Indicative fee</b>            |                             |                                                           |
| \$9,000.00* per year (more)      |                             |                                                           |
| * 2024 indicative annual CSP fee |                             |                                                           |

### Degree requirements: Students who started Trimester 1 - 2022

**For Domestic and those International students not required to complete the English Language Enhancement course**

For the award of *Bachelor of Engineering (Honours) [BEng(Hons)]*, you must successfully complete 320 credit points, made up of the core courses AND

- 20 credit points of foundation courses for your chosen major; AND
- 190 credit points for a major; AND
- 30 credit points of listed electives; AND
- 20 credit points of free-choice electives.

#### Other program requirements

You must successfully complete:

- no more than 120 credit points of Level 1 courses (the first digit of a course code denotes the level);
- at least 60 credit points of Level 3 courses or higher.

You must also complete a minimum of 12 weeks (60 days) of approved experience in an Engineering practice environment (or a satisfactory alternative) during your degree studies.

#### Exit point

To be eligible to exit the Bachelor of Engineering (Honours) program with the Bachelor of Engineering Science award, you must acquire 240 credit points as prescribed below:

- at least 210 credit points from the Bachelor of Engineering (Honours) course list for any major including all first year level and second year level core courses;
- no more than 30 credit points of free-choice electives;
- at least 60 credit points of courses at third year level or higher;
- no more than 120 credit points of courses at first year level.

To exit, you should apply for a program transfer.

#### Honours

##### Classification of Honours - Bachelor of Engineering (Honours)

The class of Honours to be awarded to each student in this degree will be determined by the School Assessment Board on the basis of the Program Grade Point Average and the performance in the final year IAP course.

A minimum IAP mark of 50% is required for the award of the Bachelor of Engineering (Honours).

Students who have repeated the IAP course will be eligible for no higher than Class III Honours. A second fail in the IAP course will result in termination of the student's enrolment in the program.

#### Cut-offs for Honours Classifications

- **Class I Honours:**
  - Program Grade Point Average - 6.200 (minimum)
  - Minimum IAP Mark - 80%
- **Class IIA Honours:**
  - Program Grade Point Average - 5.650 (minimum)
  - Minimum IAP Mark - 70%
- **Class IIB Honours:**
  - Program Grade Point Average - 5.000 (minimum)
  - Minimum IAP Mark - 60%
- **Class III Honours:**
  - Program Grade Point Average - < 5.000
  - Minimum IAP Mark - 50%

#### Australian Qualifications Framework (AQF) Level and Type

The **Australian Qualifications Framework (AQF)** is the national policy for regulated qualifications in Australian education and training. This qualification is accredited as an AQF Level 8 - Bachelor Honours Degree.

#### English Language Enhancement

Domestic students enrolled in this program whose first language is not English may complete the following **English Language Enhancement Course** as an elective.

- **5903LHS Language and Communication for Sciences**

**Students whose first language is English are not permitted to undertake this course.**

#### Program learning outcomes

##### Program learning outcomes

**Program Learning Outcomes** communicate to the community the value of the Griffith educational experience as benchmarked against national qualification standards.

**Program Learning Outcomes for this award** describe the knowledge, skills and the application of knowledge and skills you will acquire through studying the Griffith program of your choice.

#### Course list: Students starting Trimester 1 - 2022

**Course offering information in program structures is a guide only. Please check the actual offering information in the Course Catalogue.**

**Note:** Students must check the prerequisite and incompatible requirements before selecting any course within this program.

#### English Language Enhancement course

Students required to undertake the English Language Enhancement course must complete 5903LHS in their first trimester of study.

The English Language Enhancement course is to be taken in place of a Free-choice elective in your program.

| Trimester | Course code    | Requirement         | Course title                                         | CP |
|-----------|----------------|---------------------|------------------------------------------------------|----|
| Tri 2     | <b>5903LHS</b> | English Enhancement | Language and Communication for Sciences (see Note 1) | 10 |

Note 1: Students entering the program and required to complete the 5903LHS - Language and Communication for Sciences course should complete this course in their first trimester of study. Students are required to take these courses later in the program where a Free-Choice Elective would otherwise take place.

#### Year 1

Students entering the program WITHOUT the assumed knowledge of Maths Methods or equivalent are required to undertake 1017SCG Foundation Mathematics in their first trimester of study.

| Trimester | Course code | Requirement          | Course title                        | CP |
|-----------|-------------|----------------------|-------------------------------------|----|
| Tri 1     | 1017SCG     | Free-choice Elective | Foundation Mathematics (see Note 1) | 10 |

Note 1: For students who are required to complete Foundation Mathematics.

- 1017SCG Foundation Mathematics can be taken in the place of 1701ENG Creative Engineering OR 1022ENG Engineering Design Practice in the first trimester. Students then MUST take 1701ENG Creative Engineering OR 1022ENG Engineering Design Practice later in the place a Free-choice elective would otherwise be taken.

You must complete the following **core** courses:

| Trimester | Course code | Requirement          | Course title                                           | CP |
|-----------|-------------|----------------------|--------------------------------------------------------|----|
| Tri 1,3   | 1010ENG     | Hons Core to Program | Engineering Mathematics 1                              | 10 |
| Tri 1     | 1018ENG     | Hons Core to Program | Engineering Science                                    | 10 |
| Tri 1     | 1017ENG     | Hons Core to Program | Engineering Materials                                  | 10 |
| Tri 1,3   | 1022ENG     | Hons Core to Program | Engineering Design Practice                            | 10 |
| Tri 1,3   | 1701ENG     | Hons Core to Program | Creative Engineering (withdrawn from 2022, see Note 2) | 10 |
|           |             |                      | <b>OR</b>                                              |    |
| Tri 2     | 1508ENG     | Hons Core to Program | Digital Design and Modelling (see Note 1)              | 10 |
|           |             |                      | <b>OR</b>                                              |    |
| Tri 2     | 1108ENG     | Hons Core to Program | Digital and Data Skills (see Note 1)                   | 10 |
| Tri 2,3   | 1020ENG     | Hons Core to Program | Engineering Mathematics 2                              | 10 |

Note 1: Students who have not completed 1701ENG Creative Engineering by the end of 2022 must complete one of the following two courses to satisfy their degree requirements:

- 1508ENG Digital Design and Modelling (recommended for Mechanical, Electrical and Electronic Engineering students).
- 1108ENG Digital and Data Skills (recommended for Civil Engineering students).

You must complete 20 credit points (for your chosen major) from the following **foundation** courses:

#### Civil Engineering

| Trimester | Course code | Requirement          | Course title                                         | CP |
|-----------|-------------|----------------------|------------------------------------------------------|----|
| Tri 2     | 1105ENG     | Hons Listed Elective | Numerical and Computing Skills (withdrawn from 2022) | 10 |
|           |             |                      | <b>OR</b>                                            |    |
| Tri 2     | 1108ENG     | Hons Listed Elective | Digital and Data Skills                              | 10 |
|           |             |                      | <b>OR</b>                                            |    |
| Tri 2     | 1008ENG     | Hons Listed Elective | Programming and Computing for Engineers (See Note 1) | 10 |
| Tri 2,3   | 1501ENG     | Hons Listed Elective | Engineering Mechanics                                | 10 |

Note 1: Civil Engineering students are required to complete 1108ENG Digital and Data Skills. However, students who have already taken 1108ENG should take 1008ENG Programming and Computing for Engineers instead.

#### Electrical Engineering

| Trimester | Course code | Requirement          | Course title                                            | CP |
|-----------|-------------|----------------------|---------------------------------------------------------|----|
| Tri 2     | 1305ENG     | Hons Listed Elective | Engineering Programming (not offered from 2023 onwards) | 10 |
|           |             |                      | <b>OR</b>                                               |    |
| Tri 1     | 2322ENG     | Hons Listed Elective | Engineering C                                           | 10 |
| Tri 2,3   | 1301ENG     | Hons Listed Elective | Electric Circuits                                       | 10 |

### Mechanical Engineering

| Trimester | Course code | Requirement          | Course title                                         | CP |
|-----------|-------------|----------------------|------------------------------------------------------|----|
| Tri 2     | 1105ENG     | Hons Listed Elective | Numerical and Computing Skills (withdrawn from 2022) | 10 |
|           |             |                      | <b>OR</b>                                            |    |
| Tri 2     | 1305ENG     | Hons Listed Elective | Engineering Programming (withdrawn from 2023)        | 10 |
|           |             |                      | <b>OR</b>                                            |    |
| Tri 2     | 1008ENG     | Hons Listed Elective | Programming and Computing for Engineers              | 10 |
| Tri 2,3   | 1501ENG     | Hons Listed Elective | Engineering Mechanics                                | 10 |

### Years 2-4

Note: Some courses are being introduced incrementally and may not be available for enrolment. Click on the **course code** to find out more information on when the course is offered.

You must complete the following:

| Trimester | Course code | Requirement | Course title          | CP  |
|-----------|-------------|-------------|-----------------------|-----|
| Tri 1,2   |             |             | Major                 | 190 |
|           |             |             | <b>AND</b>            |     |
| Tri 1,2   |             |             | Listed electives      | 30  |
|           |             |             | <b>AND</b>            |     |
| Tri 1,2   |             |             | Free-choice electives | 20  |

**Exit point:** Bachelor of Engineering Science (1573). To exit (after completing the 240 credit point requirements of Years 1 and 2), you should apply for a program transfer.

## Majors (3 available)

### Civil Engineering

#### Year 2

You must complete the following and one elective:

| Trimester | Course code | Requirement          | Course title                       | CP |
|-----------|-------------|----------------------|------------------------------------|----|
| Tri 1     | 2205NSC     | Hons Core to Major   | Calculus II                        | 10 |
| Tri 1     | 2002ENG     | Hons Core to Major   | Fluid Mechanics and Hydraulics     | 10 |
| Tri 1     | 2101ENG     | Hons Core to Major   | Mechanics of Materials I           | 10 |
| Tri 1     | 2104ENG     | Hons Core to Major   | Construction Methods and Practices | 10 |
| Tri 2     | 2004ENG     | Hons Core to Major   | Hydrology                          | 10 |
| Tri 2     | 2102ENG     | Hons Core to Major   | Soil Mechanics                     | 10 |
| Tri 2     | 2103ENG     | Hons Core to Major   | Structural Design                  | 10 |
| Tri 2     |             | Hons Elective to Maj | Elective                           | 10 |

**Year 3**

You must complete the following courses, and may also choose two elective courses:

| Trimester | Course code | Requirement          | Course title                                             | CP |
|-----------|-------------|----------------------|----------------------------------------------------------|----|
| Tri 1     | 3101ENG     | Hons Core to Major   | Structural Analysis                                      | 10 |
| Tri 1     | 3102ENG     | Hons Core to Major   | Geotechnical Engineering                                 | 10 |
| Tri 1     | 4000ENG     | Hons Core to Major   | Research Methods and Statistics (not offered after 2025) | 10 |
| Tri 1     |             | Hons Elective to Maj | Elective                                                 | 10 |
| Tri 2     | 3004ENG     | Hons Core to Major   | Project Management Principles                            | 10 |
| Tri 2     | 3103ENG     | Hons Core to Major   | Concrete Structures                                      | 10 |
| Tri 2     | 3113ENG     | Hons Core to Major   | Civil Engineering Design Project                         | 10 |
| Tri 2     |             | Hons Elective to Maj | Elective                                                 | 10 |

**Year 4**

You must complete the following courses, and may also choose two elective courses:

| Trimester | Course code | Requirement          | Course title               | CP |
|-----------|-------------|----------------------|----------------------------|----|
| Tri 1     | 6002ENG     | Hons Core to Major   | IAP (see Note 1)           | 40 |
| Tri 2     |             | Hons Elective to Maj | Elective                   | 10 |
| Tri 2     |             | Hons Elective to Maj | Elective                   | 10 |
| Tri 2     | 6106ENG     | Hons Core to Major   | Transportation Engineering | 10 |
| Tri 2     | 6003ENG     | Hons Core to Major   | Integrated Design Project  | 10 |

Note 1: It is a requirement that students complete a minimum of 60 days of approved experience in an Engineering practice environment (or satisfactory alternative) during their degree studies.

**Listed Electives**

The offering of elective courses is subject to sufficient student enrolment numbers and staff availability. Not all elective courses are offered every year.

You must complete 30 credit points of listed electives:

List A - Students undertaking Civil major are **highly recommended** to choose the courses from this list below and may also choose any courses from List B.

| Trimester | Course code | Requirement          | Course title                                      | CP |
|-----------|-------------|----------------------|---------------------------------------------------|----|
| Tri 2     | 2105ENG     | Hons Elective to Maj | Mechanics of Materials 2                          | 10 |
| Tri 1     | 3107ENG     | Hons Elective to Maj | Construction Materials (available odd years only) | 10 |
| Tri 1     | 3114ENG     | Hons Elective to Maj | Rock Mechanics (available even years only)        | 10 |
| Tri 2     | 3115ENG     | Hons Elective to Maj | Geotechnical Engineering Practice                 | 10 |
| Tri 2     | 6109ENG     | Hons Elective to Maj | Construction Project Management                   | 10 |
| Tri 2     | 6110ENG     | Hons Elective to Maj | Coastal Engineering and Modelling                 | 10 |

List B - Students undertaking Civil major may take courses from this list and may also choose courses from List A above.

| Trimester | Course code | Requirement          | Course title                                   | CP |
|-----------|-------------|----------------------|------------------------------------------------|----|
| Tri 3     | 2007ENG     | Hons Elective to Maj | International Engineering Practice             | 10 |
| Tri 1     | 2107ENV     | Hons Elective to Maj | Introduction to Geographic Information Systems | 10 |
| Tri 2     | 3118ENG     | Hons Elective to Maj | Digital and Spatial Technologies               | 10 |
| Tri 2     | 6201ENG     | Hons Elective to Maj | Air Quality Monitoring and Control             | 10 |
| Tri 2     | 6204ENG     | Hons Elective to Maj | Advanced Water and Wastewater Engineering      | 10 |
| Tri 2     | 6205ENG     | Hons Elective to Maj | Hydrologic and Hydraulic Modelling             | 10 |
| Tri 2     | 6206ENG     | Hons Elective to Maj | Site Remediation and Rehab (available in 2025) | 10 |
| Tri 2     | 6208ENG     | Hons Elective to Maj | Hazardous Waste Management                     | 10 |
| Tri 2     | 6522ENG     | Hons Elective to Maj | Computational Statics and Dynamics             | 10 |
| Tri 1     | 7202ENG     | Hons Elective to Maj | Project Evaluation and Control                 | 10 |
| Tri 2     | 7203ENG     | Hons Elective to Maj | Resource Planning and Management               | 10 |
| Tri 2     | 7204ENG     | Hons Elective to Maj | Risk Analysis and Management                   | 10 |
| Tri 1     | 7309ENG     | Hons Elective to Maj | Advanced Water Engineering Practice            | 10 |
| Tri 1     | 3904ENV     | Hons Elective to Maj | Building Construction and Services             | 10 |

## Electrical and Electronic Engineering

### Year 2

You must complete the following courses, and may also choose one elective course:

| Trimester | Course code | Requirement          | Course title                                    | CP |
|-----------|-------------|----------------------|-------------------------------------------------|----|
| Tri 1     | 2205NSC     | Hons Core to Major   | Calculus II                                     | 10 |
| Tri 1     | 2311ENG     | Hons Core to Major   | Analog Electronics I (not offered from 2024)    | 10 |
|           |             |                      | <b>OR</b>                                       |    |
| Tri 1     | 2319ENG     | Hons Core to Major   | Introduction to Electronics (offered from 2024) | 10 |
| Tri 1     |             | Hons Elective to Maj | Elective                                        | 10 |
| Tri 1     | 2315ENG     | Hons Core to Major   | Digital Electronics (not offered from 2024)     | 10 |
|           |             |                      | <b>OR</b>                                       |    |
| Tri 2     | 1303ENG     | Hons Core to Major   | Digital Systems                                 | 10 |
| Tri 2     | 2303ENG     | Hons Core to Major   | Embedded Systems                                | 10 |
| Tri 2     | 2305ENG     | Hons Core to Major   | Signals and Systems                             | 10 |
| Tri 2     | 2314ENG     | Hons Core to Major   | Engineering Electromagnetics                    | 10 |
| Tri 2     | 2318ENG     | Hons Core to Major   | Electromechanics                                | 10 |

### Year 3

You must complete the following courses, and may also choose two elective courses:

| Trimester | Course code | Requirement          | Course title                          | CP |
|-----------|-------------|----------------------|---------------------------------------|----|
| Tri 1     | 4000ENG     | Hons Core to Major   | Research Methods and Statistics       | 10 |
| Tri 1     | 3304ENG     | Hons Core to Major   | Control Systems                       | 10 |
| Tri 1     | 3312ENG     | Hons Core to Major   | Electrical Design Project             | 10 |
| Tri 1     | 3322ENG     | Hons Core to Major   | Electromagnetic Waves and Propagation | 10 |
| Tri 2     | 3004ENG     | Hons Core to Major   | Project Management Principles         | 10 |
| Tri 2     | 3325ENG     | Hons Core to Major   | Numerical Engineering Methods         | 10 |
| Tri 2     |             | Hons Elective to Maj | Elective                              | 10 |
| Tri 2     |             | Hons Elective to Maj | Elective                              | 10 |

### Year 4

You must complete the following courses, and may also choose two elective courses:

| Trimester | Course code | Requirement          | Course title                    | CP |
|-----------|-------------|----------------------|---------------------------------|----|
| Tri 1     | 6321ENG     | Hons Core to Major   | Discrete Time Signal Processing | 10 |
| Tri 1     | 6315ENG     | Hons Core to Major   | Communication Systems           | 10 |
| Tri 1     |             | Hons Elective to Maj | Elective                        | 10 |
| Tri 1     |             | Hons Elective to Maj | Elective                        | 10 |
| Tri 2     | 6002ENG     | Hons Core to Major   | IAP (see Note 1)                | 40 |

Note 1: It is a requirement that students complete a minimum of 60 days approved experience in an engineering practice environment (or a satisfactory alternative) during their degree studies. A co requisite of this course is the completion of a minimum of 12 weeks (60 days) of approved experience in an engineering practice environment (or a satisfactory alternative).

### Listed Electives

The offering of elective courses is subject to sufficient student enrolment numbers and staff availability. Not all elective courses are offered every year. The elective list will be updated before each trimester.

You must complete 30 credit points of listed electives:

| Trimester | Course code | Requirement          | Course title                                              | CP |
|-----------|-------------|----------------------|-----------------------------------------------------------|----|
| Tri 1     | 4018ENG     | Hons Elective to Maj | Renewable Energy Integration into the Modern Power Grid   | 10 |
| Tri 2     | 3319ENG     | Hons Elective to Maj | Power Transmission and Distribution                       | 10 |
| Tri 2     | 3320ENG     | Hons Elective to Maj | Electrical Machines and Renewable Generators              | 10 |
| Tri 2     | 3327ENG     | Hons Elective to Maj | Sensors and Conditioning Circuits (not offered from 2023) | 10 |
|           |             |                      | <b>OR</b>                                                 |    |
| Tri 2     | 3328ENG     | Hons Elective to Maj | Sensors and Actuators                                     | 10 |
| Tri 1     | 2517ENG     | Hons Elective to Maj | Kinematics and Dynamics                                   | 10 |
| Tri 2     | 6309ENG     | Hons Elective to Maj | Mechatronic Systems Design and Engineering                | 10 |
| Tri 1     | 6313ENG     | Hons Elective to Maj | Electric Power Systems and Control                        | 10 |
| Tri 1     | 6316ENG     | Hons Elective to Maj | Power Electronics and Machine Drives                      | 10 |
| Tri 2     | 6524ENG     | Hons Elective to Maj | System Dynamics and Advanced Control                      | 10 |
| Tri 2,3   | 1501ENG     | Hons Elective to Maj | Engineering Mechanics                                     | 10 |
| Tri 1     | 2502ENG     | Hons Elective to Maj | Mechanical Engineering Design                             | 10 |
| Tri 2     | 2201ENG     | Hons Elective to Maj | Engineering Thermodynamics                                | 10 |
| Tri 1     | 3326ENG     | Hons Elective to Maj | SCADA Systems (not offered from 2024)                     | 10 |
|           |             |                      | <b>OR</b>                                                 |    |
| Tri 2     | 6323ENG     | Hons Elective to Maj | SCADA Systems                                             | 10 |

### Power and Machines

For students undertaking the Electrical and Electronic Engineering major.

| Trimester | Course code | Requirement          | Course title                                 | CP |
|-----------|-------------|----------------------|----------------------------------------------|----|
| Tri 2     | 3319ENG     | Hons Elective to Maj | Power Transmission and Distribution          | 10 |
| Tri 2     | 3320ENG     | Hons Elective to Maj | Electrical Machines and Renewable Generators | 10 |
| Tri 1     | 6313ENG     | Hons Elective to Maj | Electric Power Systems and Control           | 10 |
| Tri 1     | 6316ENG     | Hons Elective to Maj | Power Electronics and Machine Drives         | 10 |

### **Mechatronics**

For students undertaking the Electrical and Electronic Engineering major.

| Trimester | Course code | Requirement          | Course title                               | CP |
|-----------|-------------|----------------------|--------------------------------------------|----|
| Tri 1     | 2517ENG     | Hons Elective to Maj | Kinematics and Dynamics                    | 10 |
| Tri 2     | 3328ENG     | Hons Elective to Maj | Sensors and Actuators                      | 10 |
| Tri 2     | 6309ENG     | Hons Elective to Maj | Mechatronic Systems Design and Engineering | 10 |
| Tri 2     | 6524ENG     | Hons Elective to Maj | System Dynamics and Advanced Control       | 10 |

### **Mechanical**

For students undertaking the Electrical and Electronic Engineering major.

| Trimester | Course code | Requirement          | Course title                  | CP |
|-----------|-------------|----------------------|-------------------------------|----|
| Tri 2,3   | 1501ENG     | Hons Elective to Maj | Engineering Mechanics         | 10 |
| Tri 1     | 2502ENG     | Hons Elective to Maj | Mechanical Engineering Design | 10 |
| Tri 2     | 2201ENG     | Hons Elective to Maj | Engineering Thermodynamics    | 10 |

## **Mechanical Engineering**

### **Year 2**

You must complete the following courses:

| Trimester | Course code | Requirement        | Course title                  | CP |
|-----------|-------------|--------------------|-------------------------------|----|
| Tri 1     | 2205NSC     | Hons Core to Major | Calculus II                   | 10 |
| Tri 1     | 2517ENG     | Hons Core to Major | Kinematics and Dynamics       | 10 |
| Tri 1     | 2101ENG     | Hons Core to Major | Mechanics of Materials I      | 10 |
| Tri 1     | 2502ENG     | Hons Core to Major | Mechanical Engineering Design | 10 |
| Tri 2     | 2501ENG     | Hons Core to Major | Manufacturing Technology      | 10 |
| Tri 2     | 2201ENG     | Hons Core to Major | Engineering Thermodynamics    | 10 |
| Tri 2     | 3511ENG     | Hons Core to Major | Design of Machine Elements    | 10 |
| Tri 2     | 2105ENG     | Hons Core to Major | Mechanics of Materials 2      | 10 |

### **Year 3**

You must complete the following courses, and may also choose three elective courses:

| Trimester | Course code | Requirement          | Course title                   | CP |
|-----------|-------------|----------------------|--------------------------------|----|
| Tri 1     | 2002ENG     | Hons Core to Major   | Fluid Mechanics and Hydraulics | 10 |
| Tri 1     | 3304ENG     | Hons Core to Major   | Control Systems                | 10 |
| Tri 1     | 3508ENG     | Hons Core to Major   | Materials and Manufacturing    | 10 |
| Tri 1     |             | Hons Elective to Maj | Elective                       | 10 |
| Tri 2     | 2318ENG     | Hons Core to Major   | Electromechanics               | 10 |
| Tri 2     | 3004ENG     | Hons Core to Major   | Project Management Principles  | 10 |
| Tri 2     |             | Hons Elective to Maj | Elective                       | 10 |
| Tri 2     |             | Hons Elective to Maj | Elective                       | 10 |



**Year 4**

You must complete the following courses, and may also choose two elective courses:

| Trimester | Course code | Requirement          | Course title                                             | CP |
|-----------|-------------|----------------------|----------------------------------------------------------|----|
| Tri 1     | 4000ENG     | Hons Core to Major   | Research Methods and Statistics (not offered after 2025) | 10 |
| Tri 1     | 6527ENG     | Hons Core to Major   | Heat and Mass Transfer (not offered from 2021)           | 10 |
|           |             |                      | <b>OR</b>                                                |    |
| Tri 1     | 4007ENG     | Hons Core to Major   | Heat and Mass Transfer Engineering                       | 10 |
| Tri 1     |             | Hons Elective to Maj | Elective                                                 | 10 |
| Tri 1     |             | Hons Elective to Maj | Elective                                                 | 10 |
| Tri 2     | 6002ENG     | Hons Core to Major   | IAP (see Note 1)                                         | 40 |

Note 1: It is a requirement that students complete a minimum of 60 days of approved experience in an Engineering practice environment (or satisfactory alternative) during their degree studies.

**Listed Electives**

The offering of elective courses is subject to sufficient student enrolment numbers and staff availability. Not all elective courses are offered every year. The elective list will be updated before each trimester.

You must complete 30 credit points of listed electives:

| Trimester | Course code | Requirement          | Course title                                                   | CP |
|-----------|-------------|----------------------|----------------------------------------------------------------|----|
| Tri 1     | 6505ENG     | Hons Elective to Maj | Manufacturing with Composites (offered from 2024)              | 10 |
| Tri 2     | 2604QCA     | Hons Elective to Maj | 3D Digital Modelling for Manufacturing (not offered from 2023) | 10 |
|           |             |                      | <b>OR</b>                                                      |    |
| Tri 2     | 2608ENG     | Hons Elective to Maj | 3D Digital Modelling for Manufacture                           | 10 |
| Tri 2     | 6309ENG     | Hons Elective to Maj | Mechatronic Systems Design and Engineering                     | 10 |
| Tri 1     | 6508ENG     | Hons Elective to Maj | Fluids and CFD                                                 | 10 |
| Tri 2     | 6522ENG     | Hons Elective to Maj | Computational Statics and Dynamics                             | 10 |
| Tri 1     | 6525ENG     | Hons Elective to Maj | Digital Manufacturing                                          | 10 |
| Tri 2,3   | 1301ENG     | Hons Elective to Maj | Electric Circuits                                              | 10 |
| Tri 2     | 2303ENG     | Hons Elective to Maj | Embedded Systems                                               | 10 |
| Tri 1     | 2311ENG     | Hons Elective to Maj | Analog Electronics I (not offered from 2024)                   | 10 |
|           |             |                      | <b>OR</b>                                                      |    |
| Tri 1     | 2319ENG     | Hons Elective to Maj | Introduction to Electronics                                    | 10 |
| Tri 1     | 2315ENG     | Hons Elective to Maj | Digital Electronics (not offered from 2023)                    | 10 |
|           |             |                      | <b>OR</b>                                                      |    |
| Tri 2     | 1303ENG     | Hons Elective to Maj | Digital Systems                                                | 10 |
| Tri 2     | 3328ENG     | Hons Elective to Maj | Sensors and Actuators                                          | 10 |
| Tri 2     | 6524ENG     | Hons Elective to Maj | System Dynamics and Advanced Control                           | 10 |

### Design and Modelling

For students undertaking the Mechanical Engineering major.

| Trimester | Course code | Requirement          | Course title                                                   | CP |
|-----------|-------------|----------------------|----------------------------------------------------------------|----|
| Tri 1     | 6505ENG     | Hons Elective to Maj | Manufacturing with Composites (not offered in 2022)            | 10 |
|           |             |                      | <b>OR</b>                                                      |    |
| Tri 1     | 6525ENG     | Hons Elective to Maj | Digital Manufacturing                                          | 10 |
| Tri 2     | 2604QCA     | Hons Elective to Maj | 3D Digital Modelling for Manufacturing (not offered from 2023) | 10 |
|           |             |                      | <b>OR</b>                                                      |    |
| Tri 2     | 2608ENG     | Hons Elective to Maj | 3D Digital Modelling for Manufacture                           | 10 |
| Tri 1     | 6508ENG     | Hons Elective to Maj | Fluids and CFD                                                 | 10 |
| Tri 2     | 6522ENG     | Hons Elective to Maj | Computational Statics and Dynamics                             | 10 |

**Mechatronics**

For students undertaking the Mechanical Engineering major.

| Trimester | Course code | Requirement          | Course title                                              | CP |
|-----------|-------------|----------------------|-----------------------------------------------------------|----|
| Tri 2     | 6309ENG     | Hons Elective to Maj | Mechatronic Systems Design and Engineering                | 10 |
| Tri 1     | 2801ICT     | Hons Elective to Maj | Computing Algorithms                                      | 10 |
|           |             |                      | <b>OR</b>                                                 |    |
| Tri 1     | 2311ENG     | Hons Elective to Maj | Analog Electronics I (not offered from 2024)              | 10 |
|           |             |                      | <b>OR</b>                                                 |    |
| Tri 1     | 2319ENG     | Hons Elective to Maj | Introduction to Electronics                               | 10 |
| Tri 2     | 3327ENG     | Hons Elective to Maj | Sensors and Conditioning Circuits (not offered from 2023) | 10 |
|           |             |                      | <b>OR</b>                                                 |    |
| Tri 2     | 3328ENG     | Hons Elective to Maj | Sensors and Actuators                                     | 10 |
| Tri 2     | 6524ENG     | Hons Elective to Maj | System Dynamics and Advanced Control                      | 10 |
| Tri 2,3   | 1301ENG     | Hons Elective to Maj | Electric Circuits                                         | 10 |

**Electronics**

For students undertaking the Mechanical Engineering major.

| Trimester | Course code | Requirement          | Course title                                 | CP |
|-----------|-------------|----------------------|----------------------------------------------|----|
| Tri 2,3   | 1301ENG     | Hons Elective to Maj | Electric Circuits                            | 10 |
| Tri 1     | 2315ENG     | Hons Elective to Maj | Digital Electronics (not offered from 2023)  | 10 |
|           |             |                      | <b>OR</b>                                    |    |
| Tri 2     | 1303ENG     | Hons Elective to Maj | Digital Systems                              | 10 |
| Tri 1     | 2311ENG     | Hons Elective to Maj | Analog Electronics I (not offered from 2024) | 10 |
|           |             |                      | <b>OR</b>                                    |    |
| Tri 1     | 2319ENG     | Hons Elective to Maj | Introduction to Electronics                  | 10 |
| Tri 2     | 2303ENG     | Hons Elective to Maj | Embedded Systems                             | 10 |

**Electives (1 available)****Free-choice electives**

You may select free-choice electives from the list below or any **Undergraduate free-choice elective/s** offered across the University provided prerequisites are met. If you require guidance, please liaise with your Program Director.

| Trimester | Course code | Requirement          | Course title                        | CP |
|-----------|-------------|----------------------|-------------------------------------|----|
| Tri 1,3   | 1007GBS     | Free-choice Elective | The Future of Work                  | 10 |
| Tri 2,3   | 1009GBS     | Free-choice Elective | Grand Challenges for Business       | 10 |
| Tri 2     | 2030IBA     | Free-choice Elective | Global Business                     | 10 |
| Tri 1,3   | 1007ICT     | Free-choice Elective | Computer Systems and Cyber Security | 10 |

| Trimester    | Course code | Requirement          | Course title                                                              | CP |
|--------------|-------------|----------------------|---------------------------------------------------------------------------|----|
| Tri 2,3      | 1014SCG     | Free-choice Elective | Statistics                                                                | 10 |
| Tri 1,3      | 1015SCG     | Free-choice Elective | Quantitative Reasoning                                                    | 10 |
| Tri 1,3      | 1032LHS     | Free-choice Elective | Japanese 1A                                                               | 10 |
| Tri 1,3      | 1041SCG     | Free-choice Elective | Biological Systems                                                        | 10 |
| Tri 1,3      | 1043SCG     | Free-choice Elective | Introduction to Environmental Sustainability                              | 10 |
| Tri 2        | 1044SCG     | Free-choice Elective | Earth Systems                                                             | 10 |
| Tri 1,3      | 1004GBS     | Free-choice Elective | The Purpose of Business                                                   | 10 |
| Tri 2,3      | 1006GBS     | Free-choice Elective | Why Money Matters                                                         | 10 |
| Tri 2        | 1304NSC     | Free-choice Elective | Atmospheric Science                                                       | 10 |
| Tri 1,3      | 1008GBS     | Free-choice Elective | Business Decision-Making                                                  | 10 |
| Tri 1        | 1621ICT     | Free-choice Elective | Web Technologies (not offered from 2025)                                  | 10 |
| Tri 1        | 1701ICT     | Free-choice Elective | Creative Coding                                                           | 10 |
| Tri 1        | 1807ICT     | Free-choice Elective | Computer and Network Architecture (not offered from 2024)                 | 10 |
| Tri 1,2 or 3 | 2043IBA     | Free-choice Elective | Innovation, Creativity and Entrepreneurship                               | 10 |
| Tri 1        | 2071ENV     | Free-choice Elective | Soils and Geomorphology                                                   | 10 |
| Tri 1,3      | 2128IBA     | Free-choice Elective | The Management of Business Processes                                      | 10 |
| Tri 2        | 2304ENV     | Free-choice Elective | Rivers and Catchments                                                     | 10 |
| Tri 1,2      | 2604QCA     | Free-choice Elective | 3D Digital Modelling for Manufacturing (not offered from 2023)            | 10 |
|              |             |                      | <b>courseLineOperator</b>                                                 |    |
| Tri 2        | 2608ENG     | Free-choice Elective | 3D Digital Modelling for Manufacture                                      | 10 |
| Tri 1        | 2639QCA     | Free-choice Elective | Digital Modelling for Design                                              | 10 |
| Tri 1,2      | 2640QCA     | Free-choice Elective | Product Archetypes                                                        | 10 |
| Tri 2,3      | 2034IBA     | Free-choice Elective | Griffith Innovation Challenge (formerly 3031IBA)                          | 10 |
| Tri 2        | 6207ENG     | Free-choice Elective | Environmental Management Systems                                          | 10 |
| Tri 3        | 2105LHS     | Free-choice Elective | Writing the Character Journey from Comics to Film (not offered from 2023) | 10 |
|              |             |                      | <b>courseLineOperator</b>                                                 |    |
| Tri 3        | 2104LHS     | Free-choice Elective | Writing the Character Journey from Comics to Film                         | 10 |