



Bachelor of Engineering (Honours) (Domestic students)

Program code	Entry requirements	Prerequisites
1542	70.00	NIL
Available at	ATAR/RANK 2024	Assumed knowledge
Nathan Campus	(more)	Any General or Applied English subject (Units 3 and 4, C)
Duration	Commencing in	Mathematical Methods (Units 3 and 4, C)
4 years full-time	Trimester 1 and Trimester 2	
8 years part-time		
Credit points		
320		
Indicative fee		
\$9,000.00* per year (more)		
* 2024 indicative annual CSP fee		

Degree requirements: Students who started Trimester 2 - 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 elective/s;

OR

- 20 credit points of foundation courses for your chosen major; AND
- 230 credit points for an extended major, AND
- 10 credit points of free-choice elective/s.

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 2 - 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	5903LHS	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 MUST COMPLETE this course in place of 1022ENG Engineering Design Practice in their first trimester of study.

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.

The course 1017SCG replaces one Free-choice elective in your program.

Trimester	Course code	Requirement	Course title	CP
Tri 2	1017SCG	Free-choice Elective	Foundation Mathematics (see Note 1)	10

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 2	1018ENG	Hons Core to Program	Engineering Science	10
Tri 1,3	1022ENG	Hons Core to Program	Engineering Design Practice	10
Tri 3	1020ENG	Hons Core to Program	Engineering Mathematics 2	10
Tri 1,3	1017ENG	Hons Core to Program	Engineering Materials	10
Tri 2,3	1701ENG	Hons Core to Program	Creative Engineering (not offered from 2023) (see Note 2)	10
			OR	
Tri 2	1508ENG	Hons Core to Program	Digital Design and Modelling (see Note 2)	10
			OR	
Tri 2	1108ENG	Hons Core to Program	Digital and Data Skills (see Note 2)	10

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

- 1017SCG Foundation Mathematics takes the place of 1022ENG Engineering Design Practice in your first year.
- Take 1022ENG Engineering Design Practice later in place of where a Free-choice elective would otherwise be taken.

Note 2: Students who have not completed 1701ENG Creative Engineering by the end of 2022 must complete one of the following three courses to satisfy their degree requirements:

- 1508ENG Digital Design and Modelling (recommended for Mechanical Engineering students for Electronic Engineering, Electronic and Energy Engineering, Electronic and UAV Engineering and Mechatronics students)
- 1108ENG Digital and Data Skills (recommended for Environmental and 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 (not offered from 2023)	10
			OR	
Tri 2	1108ENG	Hons Listed Elective	Digital and Data Skills	10
Tri 2,3	1501ENG	Hons Listed Elective	Engineering Mechanics	10

Environmental Engineering

Trimester	Course code	Requirement	Course title	CP
Tri 2	1105ENG	Hons Listed Elective	Numerical and Computing Skills (not offered from 2023)	10
			OR	
Tri 2	1108ENG	Hons Listed Elective	Digital and Data Skills	10
Tri 2,3	1501ENG	Hons Listed Elective	Engineering Mechanics	10

Electronic Engineering

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

Electronic and Energy Engineering (Extended Major)

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

Electronic and UAV Engineering (Extended Major)

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

Mechatronics (Extended Major)

Trimester	Course code	Requirement	Course title	CP
Tri 2	1305ENG	Hons Listed Elective	Engineering Programming (not offered from 2023)	10
			OR	
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 (not offered from 2023)	10
			OR	
Tri 2	1305ENG	Hons Listed Elective	Engineering Programming (not offered from 2023) (see Note 1)	10
			OR	
Tri 2	1008ENG	Hons Listed Elective	Programming and Computing for Engineers	10
Tri 2,3	1501ENG	Hons Listed Elective	Engineering Mechanics	10

Note 1: Mechanical Engineering major students who complete 1105ENG Numerical and Computing Skills in trimester 2 of 2022 are not required to complete 1305ENG Engineering Programming. This is due to course content specific to T2 2022. It does not apply to completion in other trimesters, or to students from other majors.

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 one of the following options:

Trimester	Course code	Requirement	Course title	CP
Tri 1,2			Major	190
			AND	
Tri 1,2			Listed electives	30
			AND	
Tri 1,2			Free-choice electives	20
			OR	
Tri 1,2			Extended major	230
			AND	
Tri 1,2			Free-choice elective	10

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 (7 available)

Engineering Major

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

Electronic 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	2319ENG	Hons Core to Major	Introduction to Electronics	10
Tri 1	2315ENG	Hons Core to Major	Digital Electronics (not offered from 2024)	10
			OR	
Tri 2	1303ENG	Hons Core to Major	Digital Systems	10
Tri 1	2305ENG	Hons Core to Major	Signals and Systems	10
Tri 2	2301ENG	Hons Core to Major	Semiconductor Devices and Circuits	10
Tri 2	2323ENG	Hons Core to Major	Data and Computer Communications	10
Tri 2	3323ENG	Hons Core to Major	Microcontroller Techniques (Not offered from 2023)	10
			OR	
Tri 2	2303ENG	Hons Core to Major	Embedded Systems	10
Tri 2	2307ENG	Hons Core to Major	Electromagnetic Fields and Propagating Systems	10
			OR	
Tri 2	2314ENG	Hons Core to Major	Engineering Electromagnetics	10

Year 3

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

Trimester	Course code	Requirement	Course title	CP
Tri 1	3304ENG	Hons Core to Major	Control Systems	10
Tri 1	3301ENG	Hons Core to Major	Practical Electronics	10
Tri 1	3302ENG	Hons Core to Major	Computer Systems	10
Tri 2	4000ENG	Hons Core to Major	Research Methods and Statistics	10
Tri 2	3324ENG	Hons Core to Major	Communication Systems and Circuits	10
Tri 2	3303ENG	Hons Core to Major	Digital Signal Processing	10
Tri 2	3004ENG	Hons Core to Major	Project Management Principles	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

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 from the following courses:

Trimester	Course code	Requirement	Course title	CP
Tri 1	6323ENG	Hons Elective to Maj	SCADA Systems	10
Tri 2	6303ENG	Hons Elective to Maj	Advanced Communication Systems (offered odd years)	10
Tri 2	6310ENG	Hons Elective to Maj	Integrated Circuit Design	10
Tri 1	6301ENG	Hons Elective to Maj	Linear Electromagnetics (not offered from 2024)	10
Tri 1	3322ENG	Hons Elective to Maj	Electromagnetic Waves and Propagation (available from 2025)	10
Tri 2	6305ENG	Hons Elective to Maj	Advanced Computer Systems (offered even years)	10
Tri 2	6306ENG	Hons Elective to Maj	Design of Real-Time Systems (offered odd years)	10
Tri 2	6302ENG	Hons Elective to Maj	Image Processing and Machine Vision (offered even years)	10
Tri 2	6307ENG	Hons Elective to Maj	Advanced Digital Signal Processing (offered odd years)	10

Computer Systems (Nathan)

For students undertaking the Electronic Engineering major.

Trimester	Course code	Requirement	Course title	CP
Tri 1	3302ENG	Hons Elective to Maj	Computer Systems	10
Tri 2	6303ENG	Hons Elective to Maj	Advanced Communication Systems (offered even years)	10
Tri 2	6306ENG	Hons Elective to Maj	Design of Real-Time Systems (offered odd years)	10
Tri 2	6302ENG	Hons Elective to Maj	Image Processing and Machine Vision (offered even years)	10
Tri 2	6307ENG	Hons Elective to Maj	Advanced Digital Signal Processing (offered odd years)	10

Communication Systems (Nathan)

For students undertaking the Electronic Engineering major.

Trimester	Course code	Requirement	Course title	CP
Tri 2	6303ENG	Hons Elective to Maj	Advanced Communication Systems (offered odd years)	10
Tri 2	6310ENG	Hons Elective to Maj	Integrated Circuit Design	10
Tri 2	6301ENG	Hons Elective to Maj	Linear Electromagnetics (not offered from 2024)	10
			OR	
Tri 1	3322ENG	Hons Elective to Maj	Electromagnetic Waves and Propagation (offered from 2025 at NA)	10
Tri 1	6323ENG	Hons Elective to Maj	SCADA Systems	10

Signal Processing and Control (Nathan)

For students undertaking the Electronic Engineering major.

Trimester	Course code	Requirement	Course title	CP
Tri 1	6323ENG	Hons Elective to Maj	SCADA Systems	10
Tri 2	6302ENG	Hons Elective to Maj	Image Processing and Machine Vision (offered even years)	10
Tri 2	6307ENG	Hons Elective to Maj	Advanced Digital Signal Processing (offered odd years)	10
Tri 2	6306ENG	Hons Elective to Maj	Design of Real-Time Systems (offered odd years)	10

Environmental 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	2002ENG	Hons Core to Major	Fluid Mechanics and Hydraulics	10
Tri 1,3	1021SCG	Hons Core to Major	Chemistry 1A	10
Tri 1	2202ENG	Hons Core to Major	Environmental Microbiology and Ecology	10
Tri 2	2004ENG	Hons Core to Major	Hydrology	10
Tri 2	2102ENG	Hons Core to Major	Soil Mechanics	10
Tri 2	2201ENG	Hons Core to Major	Engineering Thermodynamics	10
Tri 2	3004ENG	Hons Core to Major	Project Management Principles	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	3201ENG	Hons Core to Major	Water and Wastewater Treatment Fundamentals	10
Tri 1	3202ENG	Hons Core to Major	Solid Waste Engineering	10
Tri 1	4007ENG	Hons Core to Major	Heat and Mass Transfer Engineering	10
Tri 2	3113ENG	Hons Core to Major	Civil Engineering Design Project	10
Tri 2	4000ENG	Hons Core to Major	Research Methods and Statistics	10
Tri 2	6205ENG	Hons Core to Major	Hydrologic and Hydraulic Modelling	10

Year 4

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

Trimester	Course code	Requirement	Course title	CP
Tri 1	6002ENG	Hons Core to Major	IAP (see Note 1)	40
Tri 2	6209ENG	Hons Core to Major	System 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. 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	6202ENG	Hons Elective to Maj	Cleaner Production and Circular Economy	10
Tri 2	6206ENG	Hons Elective to Maj	Site Remediation and Rehab (offered every second odd year eg. 2021, 2023 etc.)	10
Tri 2	3203ENG	Hons Elective to Maj	Renewable Energy Systems	10
Tri 2	6201ENG	Hons Elective to Maj	Air Quality Monitoring and Control	10
Tri 2	6207ENG	Hons Elective to Maj	Environmental Management Systems	10
Tri 2	6208ENG	Hons Elective to Maj	Hazardous Waste Management	10
Tri 2	6204ENG	Hons Elective to Maj	Advanced Water and Wastewater Engineering	10
Tri 3	3005ENG	Hons Elective to Maj	Global Perspectives for Sustainable Infrastructure	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	2318ENG	Hons Core to Major	Electromechanics	10
Tri 2	3004ENG	Hons Core to Major	Project Management Principles	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	2002ENG	Hons Core to Major	Fluid Mechanics and Hydraulics	10
Tri 1	3304ENG	Hons Core to Major	Control Systems	10
Tri 1	4007ENG	Hons Core to Major	Heat and Mass Transfer Engineering	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
Tri 2	4000ENG	Hons Core to Major	Research Methods and Statistics	10

Year 4

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

Trimester	Course code	Requirement	Course title	CP
Tri 1	6002ENG	Hons Core to Major	IAP (see Note 1)	40
Tri 2	3508ENG	Hons Core to Major	Materials and Manufacturing	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. 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	2315ENG	Hons Elective to Maj	Digital Electronics	10
			OR	
Tri 2	1303ENG	Hons Elective to Maj	Digital Systems	10
Tri 1	2319ENG	Hons Elective to Maj	Introduction to Electronics	10
Tri 1	3101ENG	Hons Elective to Maj	Structural Analysis	10
Tri 1	6202ENG	Hons Elective to Maj	Cleaner Production and Circular Economy	10
Tri 1	2702ICT	Hons Elective to Maj	Intelligent Media Systems (not offered from 2025)	10
			OR	
Tri 2	2006ICT	Hons Elective to Maj	Object Oriented Software Development (offered from 2025)	10
Tri 1,2	2807ICT	Hons Elective to Maj	Programming Principles	10
			OR	
Tri 1,2	1811ICT	Hons Elective to Maj	Programming Principles (offered from 2025)	10
Tri 1	3701ICT	Hons Elective to Maj	Mobile Application Development	10
Tri 2,3	1301ENG	Hons Elective to Maj	Electric Circuits	10
Tri 2	2103ENG	Hons Elective to Maj	Structural Design	10
Tri 2	3203ENG	Hons Elective to Maj	Renewable Energy Systems	10
Tri 2	3314ENG	Hons Elective to Maj	Power Distribution and Storage	10
Tri 2	6311ENG	Hons Elective to Maj	Energy Resources Management	10
Tri 2	2810ICT	Hons Elective to Maj	Software Technologies	10
Tri 2	6201ENG	Hons Elective to Maj	Air Quality Monitoring and Control	10

Mechanical

For students undertaking the Mechanical Engineering major.

Trimester	Course code	Requirement	Course title	CP
Tri 2	2103ENG	Hons Elective to Maj	Structural Design	10
Tri 1	3101ENG	Hons Elective to Maj	Structural Analysis	10
Tri 2	6201ENG	Hons Elective to Maj	Air Quality Monitoring and Control	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	10
			OR	
Tri 2	1303ENG	Hons Elective to Maj	Digital Systems	10
Tri 1	2319ENG	Hons Elective to Maj	Introduction to Electronics	10

Energy

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	2319ENG	Hons Elective to Maj	Introduction to Electronics	10
Tri 2	3203ENG	Hons Elective to Maj	Renewable Energy Systems	10
Tri 2	3314ENG	Hons Elective to Maj	Power Distribution and Storage	10
Tri 1	6202ENG	Hons Elective to Maj	Cleaner Production and Circular Economy	10
Tri 2	6311ENG	Hons Elective to Maj	Energy Resources Management	10

Information Technology

For students undertaking the Mechanical Engineering major.

Trimester	Course code	Requirement	Course title	CP
Tri 1	2702ICT	Hons Elective to Maj	Intelligent Media Systems (not offered from 2025)	10
			OR	
Tri 2	2006ICT	Hons Elective to Maj	Object Oriented Software Development (offered from 2025)	10
Tri 1,2	2807ICT	Hons Elective to Maj	Programming Principles	10
Tri 2	2810ICT	Hons Elective to Maj	Software Technologies	10
Tri 1	3701ICT	Hons Elective to Maj	Mobile Application Development	10

Extended Major

Electronic and Energy Engineering (Extended major)

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	2319ENG	Hons Core to Major	Introduction to Electronics	10
Tri 1	2305ENG	Hons Core to Major	Signals and Systems	10
Tri 1	2315ENG	Hons Core to Major	Digital Electronics	10
			OR	
Tri 2	1303ENG	Hons Core to Major	Digital Systems	10
Tri 2	2301ENG	Hons Core to Major	Semiconductor Devices and Circuits	10
Tri 2	3323ENG	Hons Core to Major	Microcontroller Techniques (not offered from 2023)	10
			OR	
Tri 2	2303ENG	Hons Core to Major	Embedded Systems	10
Tri 2	2201ENG	Hons Core to Major	Engineering Thermodynamics	10
Tri 2	2307ENG	Hons Core to Major	Electromagnetic Fields and Propagating Systems (not offered from 2024)	10
			OR	
Tri 2	2314ENG	Hons Core to Major	Engineering Electromagnetics	10

Year 3

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

Trimester	Course code	Requirement	Course title	CP
Tri 1	3301ENG	Hons Core to Major	Practical Electronics	10
Tri 1	2002ENG	Hons Core to Major	Fluid Mechanics and Hydraulics	10
Tri 1	3315ENG	Hons Core to Major	Efficient Energy Systems	10
Tri 2	3004ENG	Hons Core to Major	Project Management Principles	10
Tri 2	2318ENG	Hons Core to Major	Electromechanics	10
Tri 2	3203ENG	Hons Core to Major	Renewable Energy Systems	10
Tri 2	3314ENG	Hons Core to Major	Power Distribution and Storage	10

Year 4

You must complete the following courses:

Trimester	Course code	Requirement	Course title	CP
Tri 1	6002ENG	Hons Core to Major	IAP (see Note 1)	40
Tri 1	6301ENG	Hons Core to Major	Linear Electromagnetics (not offered from 2024)	10
			OR	
Tri 1	3322ENG	Hons Core to Major	Electromagnetic Waves and Propagation	10
Tri 2	6311ENG	Hons Core to Major	Energy Resources Management	10
Tri 2	4000ENG	Hons Core to Major	Research Methods and Statistics	10
Tri 2	2313AFE	Hons Core to Major	Environmental and Energy Economics	10

Note 1: It is a requirement that students complete a minimum of 60 days of approved experience in an Engineering practice

Electronic and UAV Engineering (Extended major)

Year 2

Note: Year 2/Trimester 3 is a compulsory trimester of study for students completing the Electronic and UAV Engineering major.

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	2319ENG	Hons Core to Major	Introduction to Electronics	10
Tri 1	2315ENG	Hons Core to Major	Digital Electronics	10
			OR	
Tri 2	1303ENG	Hons Core to Major	Digital Systems	10
Tri 1	2305ENG	Hons Core to Major	Signals and Systems	10
Tri 2	2307ENG	Hons Core to Major	Electromagnetic Fields and Propagating Systems (not offered from 2024)	10
			OR	
Tri 2	2314ENG	Hons Core to Major	Engineering Electromagnetics	10
Tri 2	3323ENG	Hons Core to Major	Microcontroller Techniques (withdrawn from 2022)	10
			OR	
Tri 2	2303ENG	Hons Core to Major	Embedded Systems	10
Tri 2	2301ENG	Hons Core to Major	Semiconductor Devices and Circuits	10
Tri 2	3324ENG	Hons Core to Major	Communication Systems and Circuits	10
Tri 3	6001ENG	Hons Core to Major	Avionics and Aircraft Practice	20

Transfer point: For students transferring to the **Bachelor of Engineering (Honours)/Bachelor of Aviation (1584)**. These students should apply for a program transfer.

Year 3

You must complete the following courses:

Trimester	Course code	Requirement	Course title	CP
Tri 2	6603ENG	Hons Core to Major	Workshop Technology	10
Tri 1	3701ENG	Hons Core to Major	Basic Aeronautical Knowledge	10
Tri 1	3301ENG	Hons Core to Major	Practical Electronics	10
Tri 1	3304ENG	Hons Core to Major	Control Systems	10
Tri 2	6702ENG	Hons Core to Major	UAV Design	10
Tri 2	4000ENG	Hons Core to Major	Research Methods and Statistics	10
Tri 2	3702ENG	Hons Core to Major	Advanced RPAS Applications	10

Year 4

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

Trimester	Course code	Requirement	Course title	CP
Tri 1	6002ENG	Hons Core to Major	IAP (see Note 1)	40
Tri 2	6303ENG	Hons Core to Major	Advanced Communication Systems	10
Tri 2	3004ENG	Hons Core to Major	Project Management Principles	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.

Mechatronics (Extended Major)

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	2319ENG	Hons Core to Major	Introduction to Electronics	10
Tri 1	2315ENG	Hons Core to Major	Digital Electronics	10
			OR	
Tri 2	1303ENG	Hons Core to Major	Digital Systems	10
Tri 1	2305ENG	Hons Core to Major	Signals and Systems	10
Tri 2	2301ENG	Hons Core to Major	Semiconductor Devices and Circuits	10
Tri 2	2501ENG	Hons Core to Major	Manufacturing Technology	10
Tri 2	3323ENG	Hons Core to Major	Microcontroller Techniques	10
			OR	
Tri 2	2303ENG	Hons Core to Major	Embedded Systems	10
Tri 2	1501ENG	Hons Core to Major	Engineering Mechanics	10

Year 3

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

Trimester	Course code	Requirement	Course title	CP
Tri 1	3304ENG	Hons Core to Major	Control Systems	10
Tri 1	3301ENG	Hons Core to Major	Practical Electronics	10
Tri 1	3326ENG	Hons Core to Major	SCADA Systems	10
Tri 1	2517ENG	Hons Core to Major	Kinematics and Dynamics	10
Tri 2	3328ENG	Hons Core to Major	Sensors and Actuators	10
Tri 2	3511ENG	Hons Core to Major	Design of Machine Elements	10
Tri 2	2318ENG	Hons Core to Major	Electromechanics	10

Year 4

You must complete the following courses:

Trimester	Course code	Requirement	Course title	CP
Tri 1	6002ENG	Hons Core to Major	IAP (see Note 1)	40
Tri 2	3004ENG	Hons Core to Major	Project Management Principles	10
Tri 2	6524ENG	Hons Core to Major	System Dynamics and Advanced Control	10
Tri 2	4000ENG	Hons Core to Major	Research Methods and Statistics	10
Tri 2	6309ENG	Hons Core to Major	Mechatronic Systems Design and Engineering	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.

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 1,2	1001EHR	Free-choice Elective	Work and Employability (not offered from 2021)	10
			courseLineOperator	
Tri 1,3	1007GBS	Free-choice Elective	The Future of Work	10
Tri 1,2 or 3	1003MKT	Free-choice Elective	Introduction to Marketing (not offered from 2021)	10
			courseLineOperator	
Tri 2,3	1009GBS	Free-choice Elective	Grand Challenges for Business	10
Tri 1	1005IBA	Free-choice Elective	Introduction to International Business (not offered from 2021)	10
			courseLineOperator	
Tri 2	2030IBA	Free-choice Elective	Global Business	10
Tri 1,3	1007ICT	Free-choice Elective	Computer Systems and Cyber Security	10
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 1,2 or 3	1101IBA	Free-choice Elective	Management Concepts (not offered from 2021)	10
			courseLineOperator	
Tri 1,3	1004GBS	Free-choice Elective	The Purpose of Business	10
Tri 1,3	1102AFE	Free-choice Elective	Accounting for Decision Making (not offered from 2022)	10
			courseLineOperator	
Tri 2,3	1006GBS	Free-choice Elective	Why Money Matters	10
Tri 1	1303AFE	Free-choice Elective	Economics for Decision Making 1 (not offered from 2022)	10
Tri 2	1304NSC	Free-choice Elective	Atmospheric Science	10
Tri 1,3	1305AFE	Free-choice Elective	Business Data Analysis (not offered from 2021)	10
			courseLineOperator	

Trimester	Course code	Requirement	Course title	CP
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 2	2001ICT	Free-choice Elective	Project Management (not offered from 2022)	10
Tri 1,2 or 3	2043MKT	Free-choice Elective	Entrepreneurship and New Business Ventures (not offered from 2020)	10
			courseLineOperator	
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
			courseLineOperator	
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 1	3612ICT	Free-choice Elective	Database Systems and Administration (not offered from 2018)	20
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
			courseLineOperator	
Tri 3	2104LHS	Free-choice Elective	Writing the Character Journey from Comics to Film	10