



Bachelor of Engineering (Honours) in Mechatronic Engineering (International students)

Program code

1426

Commencing in

For Continuing Students Only

Available at

Duration

4 years full-time

Credit points

320

Degree requirements: Students who started Semester 1 - 2016

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

To be eligible for the award of *Bachelor of Engineering (Honours) in Mechatronic Engineering [BEng(Hons)]*, a student must acquire 320 credit points as prescribed below:

- gain 310 credit points as prescribed;
- gain 10 credit points for **Undergraduate free-choice elective/s**;
- complete no more than 120 credit points at first year level;
- complete at least 80 credit points of courses at final year level;
- complete a minimum of 12 weeks (60 days) of approved experience in an engineering practice environment (or a satisfactory alternative) during their degree studies.

Exit point

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

- at least 210 credit points from the Bachelor of Engineering (Honours) in Mechatronic Engineering course list including all first year level and second year level core courses
- no more than 30 credit points of **Undergraduate free-choice elective/s**
- at least 60 credit points of courses at third year level or higher
- no more than 100 credit points of courses at first year level.

Note: Students undertaking the **Bachelor of Engineering (Honours) in Electronic and Biomedical Engineering (1424)** or **Bachelor of Engineering (Honours) in Software Engineering (1478)** will need to have completed some Year 4 courses to meet the above requirements.

To exit, a student should apply for a program transfer.

For International students required to complete the English Language Enhancement course

To be eligible for the award of *Bachelor of Engineering (Honours) in Mechatronic Engineering [BEng(Hons)]*, a student must acquire 320 credit points as prescribed below:

- gain 310 credit points as prescribed;
- gain 10 credit points for **5903LHS Language and Communication for Sciences**;
- complete no more than 120 credit points at first year level;
- complete at least 80 credit points of courses at final year level;
- complete a minimum of 12 weeks (60 days) of approved experience in an engineering practice environment (or a satisfactory alternative) during their degree studies.

Exit point

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

- at least 210 credit points from the Bachelor of Engineering (Honours) in Mechatronic Engineering course list including all first year level and second year level core courses
- 10 credit point English Language Enhancement course (5903LHS)
- no more than 20 credit points of **Undergraduate free-choice elective/s**
- at least 60 credit points of courses at third year level or higher
- no more than 100 credit points of courses at first year level.

Note: Students undertaking the **Bachelor of Engineering (Honours) in Electronic and Biomedical Engineering (1424)** or **Bachelor of Engineering (Honours) in Software Engineering (1478)** will need to have completed some Year 4 courses to meet the above requirements.

To exit, a student should apply for a program transfer.

Honours

Classification of Honours

Bachelor of Engineering (Honours) in Mechatronic Engineering

Honours in this program is awarded on the basis of sustained performance in the final two years of the program and in accordance with the Honours Weighted Average (HWA). The Honours Weighted Average is calculated using specified courses (third and fourth year level including the research component) which are referred to as the **Honours Calculable Courses (HCC)** and these courses are identified in the course lists within the program structure.

The Honours Weighted Average is calculated by multiplying the 120 credit points of Honours Calculable Courses by the percentage mark and the relevant weighting assigned for each course, divided by 120 credit points multiplied by the relevant weighting factor.

Cut-offs for Honours Classification

- **Class I Honours:**
 - Overall HWA Range: 80 - 100%
 - Minimum Thesis Mark - 80%
- **Class IIA Honours:**
 - Overall HWA Range: 70 - 79%
 - Minimum Thesis Mark - 70%
- **Class IIB Honours:**
 - Overall HWA Range: 55 - 69.9%
 - Minimum Thesis Mark - 60%
- **Class III Honours:**
 - Overall HWA Range: < 54.9%
 - Minimum Thesis 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

All undergraduate International students are required to complete an **English Language Enhancement Course** unless specific criteria are met as specified in Section 5.0 **Qualifications Procedure**.

The following course must be completed in the first trimester of study:

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

Advice regarding the requirement to complete the English Language Enhancement Course is available via the *myGriffith* portal (in the To Do List).

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 Semester 1 - 2016

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.

Course selection for students required to complete the English Language Enhancement course

Students entering the program in **Trimester 1** will:

- complete **5903LHS Language and Communication for Sciences** in their first trimester of study in place of **1007ENG Engineering Fundamentals** and
- complete **1007ENG Engineering Fundamentals** in Year 3 in place of a **Undergraduate free-choice elective/s**.

Year 1

Students must complete the following courses:

Semester	Course code	Requirement	Course title	CP
Tri 1	1007ENG		Engineering Fundamentals (see Note 1) (not offered from 2017)	10
			OR	
Tri 1,3	1701ENG		Creative Engineering (Withdrawn from 2022)	10
			OR	
Tri 1,3	1008ENG		Programming and Computing for Engineers	10
			OR	
Tri 1	5903LHS		Language and Communication for Sciences	10
Tri 1	1502ENG		Engineering Materials (not offered from 2017)	10
			OR	
Tri 1,3	1017ENG		Engineering Materials	10
Tri 1	1011SCG		Mathematics 1A (not offered from 2017)	10
			OR	
Tri 1	1010ENG		Engineering Mathematics 1	10
Tri 1	1004ENG		Computing and Programming with MATLAB (not offered from 2018)	10
			OR	
Tri 2	1305ENG		Engineering Programming (withdrawn from 2022)	10
			OR	
Tri 2	1008ENG		Programming and Computing for Engineers	10
Tri 2	1006ENG		Design and Professional Skills	10
Tri 2	1005ENG		Electronics for Engineers (not offered from 2017)	10
			OR	
Tri 2,3	1301ENG		Electric Circuits	10
Tri 2	1501ENG		Engineering Mechanics	10
Tri 1	1012SCG		Mathematics 1B (offered for the last time in Tri 1 2017)	10
			OR	
Tri 2	1020ENG		Engineering Mathematics 2	10

Note 1. Students not undertaking 1007ENG in Year 1 must complete this course in Year 3.

Year 2

Students must complete the following courses:

Semester	Course code	Requirement	Course title	CP
Tri 1	2311ENG		Analog Electronics I	10
Tri 1	2315ENG		Digital Electronics	10
Tri 1	2203NSC		Mathematics 2A (not offered from 2018)	10
			OR	
Tri 1	2205NSC		Calculus II	10
Tri 1	2101ENG		Mechanics of Materials I	10
Tri 2	2312ENG		C Programming and Computer Architecture (not offered from 2017)	10
			OR	
Tri 2	1305ENG		Engineering Programming (withdrawn from 2022)	10
			OR	
Tri 2	1008ENG		Programming and Computing for Engineers	10
Tri 2	2303ENG		Embedded Systems	10
Tri 2	3318ENG		Sensors and Actuators (not offered from 2018)	10
			OR	
Tri 2	3327ENG		Sensors and Conditioning Circuits	10
Tri 2	2305ENG		Signals and Systems	10

Year 3

Students must complete the following courses:

Semester	Type	Course code	Requirement	Course title	CP
Tri 1	HCC-A	3304ENG		Control Systems	10
Tri 1				Undergraduate free-choice elective/s (see Note 1)	10
				OR	
Tri 1		1007ENG		Engineering Fundamentals (see Note 2) (not offered from 2017)	10
				OR	
Tri 1,3		1701ENG		Creative Engineering (see Note 2) (Withdrawn from 2022)	10
				OR	
Tri 1,3		1008ENG		Programming and Computing for Engineers	10
Tri 1		3317ENG		Kinematics and Dynamics (not offered from 2018)	10
				OR	
Tri 1		2517ENG		Kinematics and Dynamics (offered from 2018)	10
Tri 1		3312ENG		Electrical Design Project	10
Tri 2		2505ENG		Design of Machine Elements (not offered from 2019)	10
				OR	
Tri 2		3511ENG		Design of Machine Elements (offered from 2019)	10
Tri 2	HCC-A	3321ENG		Instrumentation and Monitoring (Previously Signal Conditioning) (not offered from 2019)	10
Tri 2	HCC-A	6319ENG		Precision Engineering and Prototyping (not offered from 2019)	10
				OR	
Tri 2		2501ENG		Manufacturing Technology (offered from 2019)	10
Tri 2	HCC-B	6524ENG		System Dynamics and Advanced Control	10

Note 1: Students may choose **Undergraduate free-choice elective/s** from across the university or choose Engineering electives from the list below.

Note 2: Students not undertaking 1007ENG or 1701ENG in Year 1 must complete one of these courses in Year 3.

Type:

HCC-A = Honours Calculable Courses with a weighting factor of 1

HCC-B = Honours Calculable Courses with a weighting factor of 2

Exit point: **Bachelor of Engineering Science (1573)**. To exit (after completing the 240 credit point requirements of Years 1, 2 and 3), a student should apply for a program transfer.

Year 4

Students must complete the following courses:

Semester	Type	Course code	Requirement	Course title	CP
Tri 1	HCC-B	6321ENG		Discrete Time Signal Processing	10
Tri 1	HCC-B	6308ENG		Digital Control System Engineering	10
Tri 2	HCC-B	6309ENG		Mechatronic Systems Design and Engineering	10
Tri 1	HCC-A	4000ENG		Research Methods and Statistics	10
Tri 2	HCC-B	6007ENG		IAP - Thesis (capstone course) (not offered from 2021) (see Note 1)	30
				AND	
Tri 2		6008ENG		IAP - Professional Practice (not offered from 2021) (see Note 1)	10
				OR	
Tri 2	HCC-B	6002ENG		IAP (offered from 2020) (see Note 1)	40

Note 1: Students who have completed either 6007ENG or 6008ENG should complete the corresponding course (6007ENG or 6008ENG) before 2021. Students who have not completed either 6007ENG or 6008ENG should enrol in 6002ENG.

Type:

HCC-A = Honours Calculable Courses with a weighting factor of 1

HCC-B = Honours Calculable Courses with a weighting factor of 2

Electives (1 available)

Listed Mechatronic Engineering electives

Semester	Course code	Requirement	Course title	CP
Tri 1	2502ENG		Mechanical Engineering Design	10
Tri 1	6317ENG		Biomedical and Sport Instrumentation (not offered from 2020)	10
Tri 1	6318ENG		Signals and Imaging for Biomedical Applications	10
Tri 2	3004ENG		Project Management Principles	10
Tri 2	3309ENG		Engineering Electromagnetics (not offered from 2016)	10
			courseLineOperator	
Tri 2	2314ENG		Engineering Electromagnetics (offered from 2016)	10
Tri 2	3320ENG		Electrical Machines and Renewable Generators (offered from 2017)	10