

Bachelor of Engineering and Bachelor of Science (BEBS) - BEng BSc

QTAC code (Australian and New Zealand applicants): Toowoomba campus: 907362

CRICOS code (International applicants): 034159G

This program is offered only to continuing students. No new admissions will be accepted. Students who are interested in this study area should consider the

Program objectives

Program structure

The program involves five years of full-time study and to be eligible for the combined award, full-time students must complete the requirements of the program within seven years of their initial enrolment in the program.

The program is not available by part-time study or by distance education except for students who are eligible to enter the program with advanced standing of 16 or more units. Students who are eligible to study part-time or by distance must complete the program within eight years of their initial enrolment.

Where students intend to complete the program using a combination of full-time and part-time study the maximum time for completion will be calculated on a pro-rata basis.

For more details of the two programs that comprise this award, applicants are asked to refer to the [Bachelor of Science](#) and [Bachelor of Engineering](#) sections of this Handbook.

The Bachelor of Engineering and Bachelor of Science is a 40-unit program consisting of Academic courses and Practice courses.

Academic courses are normally one-unit courses and involve approximately 155 hours of student work per unit.

Practice courses are zero unit courses and each involves approximately 50 hours of student work. The only grades available for a Practice Course are Pass (P) and Fail (F). A Practice Course is designed to enable students to acquire specific competencies associated with their Engineering major study. These competencies range from specific practical and communication skills through to generic competencies relating to ethical and social responsibility, awareness of the environment, teamwork, etc. For an external student a Practice Course generally involves attendance on-campus for a one-week [residential school](#).

The components of the program are shown in the following table:

Program Component	Academic Courses		Practice Courses	
	Number of Courses	Units	Number of Courses	Units
Core Studies	13	13	4	0
Engineering Major Study	19	19	3-5 depending on the major	0
Science Major Study	8	8	0	0
Total	40	40	6-8	0

ENG1002 Introduction to Engineering and Spatial Science Applications	1
ENG2002 Technology, Sustainability and Society	1
ENG3003 Engineering Management	1
ENG1100 Introduction to Engineering Design	1
ENG1101	1
ENG2102	1
ENG4110 Engineering Research Methodology	1
ENG3104 Engineering Simulations and Computations	1
ENG4111 Research Project Part 1	1
ENG4112 Research Project Part 2	1
STA2300 Data Analysis	1
Total	14
Practice Courses	
ENG1901 Engineering Practice 1	0
ENG3902 Professional Practice 1	0
ENG4903 Professional Practice 2	0
ENG4909 Work Experience - Professional	0

Students who enrol in the Bachelor of Science program must complete four core courses, and one course from each of three other categories: Communication Studies; Computing Studies; and Enabling Studies. The courses students study in each of these categories depend on the Science major they undertake (refer to the Bachelor of Science Handbook entry).

Major studies

Bkdfkbbofkd j ^qlop

An Engineering major study provides students with knowledge and skills in a particular engineering discipline. Students must select one of the following nine majors as their Engineering major. Students enrolled in the Bachelor of Engineering and Bachelor of Science program study only 18 of the 19 courses listed in an Engineering major. An Elective course is to be deleted from the list of courses in each major.

Engineering major studies:
Agricultural Engineering*
Civil Engineering*
Computer Systems Engineering
Electrical and Electronic Engineering*
Environmental Engineering
Instrumentation and Control Engineering
Mechanical Engineering*
Mechatronic Engineering*
Power Engineering

The courses in each of the Engineering majors are listed in the [Bachelor of Engineering](#) section of this Handbook. Students enrolled in the Bachelor of Engineering and Bachelor of Science program study only 18 of the 19 courses listed in an Engineering major. An Elective course is to be deleted from the list of courses in each major.

To satisfy the requirements for the award students completing one of the majors marked with an asterisk (*) must complete a course offered by the School of Agricultural, Computational and Environmental Sciences as

- the Grade Point Average calculated from the grades achieved in the courses studied in, or transferred to, the program;
- the grade achieved by the student in the courses [ENG4111](#) Research Project Part 1 and [ENG4112](#) Research project Part 2 (unless the student is exempted from these courses).

The minimum levels of achievement normally required for each class of honours are shown in the following table. To be assured of achieving a particular class of honours students must have achieved the specified grade in the research project courses and the minimum GPA requirements for all of the courses studied, for the last 16 courses studied, or for the last eight courses studied.

Class of Honours	GPA Calculated from the Grades Achieved in:			Minimum Grade Achieved in Research Project Courses
	All Courses Studied in the Program	The Last 16 Courses Studied ^{*#}	The Last Eight Courses Studied ^{*#}	
First Class Honours	6.0	6.2	6.5	A
Second Class Honours - Division A	5.5	5.7	5.9	B
Second Class Honours - Division B	5.0	5.1	5.3	C
Minimum number of courses required	20	16	8	

Footnotes

* The results from courses [ENG4111](#) and [ENG4112](#) must be included (unless the student is exempted from these courses).

The best results in a semester are to be used when not all of the results from a semester are required.

Other information

To be eligible to graduate from the Bachelor of Engineering, students must obtain an aggregate of at least 60 days of suitable practical experience during their program. This experience may be in an engineering office or laboratory where the student would be working principally with professional engineers and engineering associates. It may, however, be preferable for students to spend some time in field or factory activities to gain insight into industrial practice and to see what is involved in converting designs into finished products. Students are required to enrol in [ENG4909 Work Experience - Professional](#) in the latter part of their program and keep a record of appropriate experience as specified in the Course Specification. The work experience is to be endorsed by an appropriate person in the organisation providing the experience and submitted to the examiner. The student must meet all costs associated with the acquisition of practical experience to satisfy this requirement. The record of work experience must be made available for perusal by the Faculty of Health, Engineering and Sciences upon request. The acceptability or otherwise of employment experience, and the period of that type