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

Graduates of the Bachelor of Engineering and Bachelor of Science program will have met the separate objectives of the Bachelor of Engineering and the Bachelor of Science programs.

Program Information Set

View USQ's admission criteria, student profiles and a summary of all offers made under Course Admission Information Set via the QTAC website.

Admission requirements

To be eligible for admission, applicants must satisfy the following requirements:

- have studied four semester units and achieved an exit assessment of "Sound Achievement" or better in each of the following Queensland Senior Secondary School subjects: English and Mathematics B. It is recommended that applicants should also have satisfactorily completed the subject: Physics, or
- be able to demonstrate that they have achieved an equivalent standard in these subjects at another institution, and
- **Australian applicants:** have achieved a Queensland Overall Position (OP) band, or an equivalent Rank based on qualifications and previous work experience, at or above the specified cut-off level.

To be admitted to the program, students who intend studying part-time (i.e. less than six units per year) must be eligible to receive at least 16 units of exemptions. This is necessary to ensure that these students are able to complete the program within the maximum duration of eight years.

All students are required to satisfy the applicable English language requirements.

If students do not meet the English language requirements they may apply to study a University-approved English language program. On successful completion of the English language program, students may be admitted to an award program.

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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 Scienceand Bachelor of Engineeringsections 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

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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