# Bachelor of Engineering (Honours) Bachelor of Science (BEHS) - BEng(Hons) BSc

QTAC code (Australian and New Zealand applicants): Toowoomba campus: 907362; Distance education: 907365	
CRICOS code (International applicants): 079518F	-

# **Program objectives**

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

#### **Australian Qualifications Framework**

The Australian Qualifications Framework (AQF) is a single national, comprehensive system of qualifications offered by higher education institutions (including universities), vocational education and training institutions and secondary schools. Each AQF qualification has a set of descriptors which define the type and complexity of knowledge, skills and application of knowledge and skills that a graduate who has been awarded that qualification has attained, and the typical volume of learning associated with that qualification type.

This program is at AQF Qualification Level 08. Graduates at this level will have advanced knowledge and skills for professional or highly skilled work and/or further learning.

The full set of levels criteria and qualification type descriptors can be found by visiting www.aqf.edu.au.

## Admission requirements

#### **Applicants shall normally:**

- 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.

Applicants should ensure they are able to complete this program within the maximum duration of eight years. To achieve this, students will need to complete a minimum of five units of study per year or be eligible for 16 units of credit.

Domestic and International Applicants from a non-English speaking background are required to satisfy English language requirements.

If you do not meet the English language requirements you may apply to study a University-approved English language program. On successful completion of the English language program, Applicants may be admitted to an Award Program.

#### **Program fees**

#### Commonwealth supported place

A Commonwealth supported place is where the Australian Government makes a contribution towards the cost of your higher education and you as a student pay a student contribution amount, which varies depending on the courses undertaken. You are able to calculate the fees for a particular course via the Course Fee Finder. Commonwealth Supported students may be eligible to defer their fees through a Government loan called HECS-HELP.

#### Domestic full fee paying place

Domestic full fee paying places are funded entirely through the full fees paid by the student. Full fees vary depending on the courses that are taken. You are able to calculate the fees for a particular course via the Course Fee Finder.

Domestic full fee paying students may be eligible to defer their fees through a Government loan called FEE-HELP provided they meet the residency and citizenship requirements.

Australian citizens, Permanent Humanitarian Visa holders, Permanent Resident visa holders and New Zealand citizens who will be resident outside Australia for the duration of their program pay full tuition fees and are not eligible for FEE-Help.

#### International full fee paying place

International students pay full fees. Full fees vary depending on the courses that are taken and whether they are studied on-campus, via distance education/online. You are able to calculate the fees for a particular course via the Course Fee Finder.

### **Program structure**

The program involves five years of full-time study.

Students may apply for admission to study part-time or by distance education however applicants should ensure they are able to complete this program within the maximum duration of eight years. To achieve this, students will need to complete a minimum of five units of study per year or be eligible for 16 units of credit.

Where students intend to complete the program using a combination of full-time and part-time study the

ENG3003 Engineering Management	1
ENG1100 Introduction to Engineering Design	1
ENG1101 Introduction to Engineering Problem Solving	1
ENG2102 Engineering Problem Solving and Analysis	1
ENG3104 Engineering Simulations and Computations	1
ENG4110 Engineering Research Methodology	1
ENG4111 Research Project Part 1	1
ENG4112 Research Project Part 2	1
STA2300 Data Analysis	1
Total	13
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, the course STA2300 Data Analysis, 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 i ^olop

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.

The courses in each of the Engineering majors are listed in the Bachelor of Engineering (Honours) section of this Handbook. Students enrolled in the Bachelor of Engineering (Honours) 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

<sup>\*</sup> 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 one of their Electives. The course CSC1402 Foundation Computing should not be studied as it will not satisfy this requirement.

Students should refer to the list of recommended Elective courses for their Engineering major.

# P`fbk`b j^glop

The Science major will enable students to increase their kno

#### Residential schools

Students are required to undertake practical and professional activities relevant to their program through enrolment in a series of Practice courses in the program. Practice courses are zero unit courses that may be undertaken in either on-campus or external mode and the final grades available are Pass (P)/Fail (F) only. They are a compulsory part of the program and do not attract a student contribution charge for Australian residents or a tuition fee for international students. The recommended enrolment schedule for Practice courses is shown in the Recommended Enrolment Pattern for the program in this Handbook.

External students must attend a number of residential schools during their program to obtain experience in practical and professional activities appropriate to the program. The residential schools are included in Practice courses which are conducted in Semester 3 or during the recess periods. The dates for each residential school Practice course are shown in the Residential School schedule in this Handbook and external students should ensure they are able to attend the residential school prior to enrolling in a Practice course. Personal protective equipment is compulsory in many engineering, construction and spatial science laboratories, students should confirm the requirements before attending residential schools for Practice courses.

Students who enrol in on-campus mode for Practice courses normally undertake a series of weekly activities and/or attend a compulsory residential school.

ENG3902 Professional Practice 1 is to be studied in the student's penultimate year. Upon completion of ENG3902 Professional Practice 1, students must study ENG4111 Research Project Part 1 and ENG4112 Research Project Part 2 and ENG4903 Professional Practice 2 in the same academic year.

#### **Exit points**

Students who, for whatever reason, are unable to complete the Bachelor of Engineering (Honours) Bachelor of Science and who satisfy all of the requirements of either the Bachelor of Engineering (Honours), the Bachelor of Engineering Science, the Associate Degree of Engineering or the Diploma of Engineering Studies may be permitted to exit with that award.

# Credit

Exemptions/credit will be assessed based on the USQ Credit and Exemption Procedure.

#### **Course transfers**

Students may enter the program with advanced standing. Students who are enrolled in either the Bachelor of Engineering (Honours) program or the Bachelor of Science program may transfer to the program. If they have completed up to one year of one of those programs they would normally be able to complete the program in the minimum time, after four more years of full-time study. Other students may require longer than the minimum time.

#### **Honours**

The level of honours awarded will be determined based on the USQ procedure. Please refer to the Class of Honours Standard Schedule.

### Recommended enrolment pattern

Students are able to enrol in any offered mode of a course (on-campus, external or online), regardless of the program mode of study they enrolled in.

Due to the large number of combinations of Engineering and Sciences majors available separate recommended enrolment pattern tables are not printed in this Handbook.

Commencing on-campus students should enrol in the standard first year courses in the engineering major that they have selected. Towards the end of their first year they should consult the Faculty of Health, Engineering and Sciences for advice on the enrolment pattern to be followed in later years of their program.