Bachelor of Engineering Technology (BETC) - BEngTech

QTAC code (Australian and New Zealand applicants): Toowoomba campus: 907902; Distance education: 907905; Springfield campus: 927902

CRICOS code (International applicants): 013504B

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 BENS Bachelor of Engineering Science which will be offered from S1 2014.

	On-campus	Distance education
Semester intake:		
Campus:	Springfield, Toowoomba	-
Fees:	Commonwealth supported place Domestic full fee paying place International full fee paying place	Commonwealth supported place Domestic full fee paying place International full fee paying place
Standard duration:	3 years full-time, 6 years part-time or external	
Program articulation:	From: Associate Degree of Engineering To: Bachelor of Engineering (Honours)	

Notes:

Please note that the Civil Engineering major and the Infrastructure Management major (formerly known as Building and Construction Management) are the only two majors that are available on-campus at Springfield.

Contact us

Current students
Ask a question Freecall (within Australia): 1800 007 252 Phone (from outside Australia): +61 7 4631 2285 Email usq.support@usq.edu.au

Professional accreditation

A graduate of this program is eligible to apply for graduate membership of Engineers Australia as an Engineering Technologist. After further professional development, a graduate member with a Bachelor of Engineering Technology may apply for chartered status as an Engineering Technologist and, when granted, may use the post-nominal TMIEAust CEngT.

Program aims

To equip graduates with the academic, personal, professional, and technical knowledge, skills and understanding required to commence practice as a Graduate Engineering Technologist in Australia or overseas within appropriate social, cultural, industrial and environmental contexts.

Program objectives

The objectives of the Bachelor of Engineering Technology program are:

- to enable students to acquire and demonstrate that they possess the specified graduate attributes and capabilities;
- to enable students to acquire an appropriate level of technical competence in one of the following fields: Agricultural Engineering, Infrastructure Management; Civil Engineering; Computer Systems Engineering;

Electrical and Electronic Engineering; Environmental Engineering; Mechanical Engineering or Power Engineering;

- to enable students from diverse and non-traditional backgrounds and locations to enrol in the program and to provide them with opportunities to acquire the skills necessary to complete the program in the normal time;
- to enable students to be empowered as learners through the provision of a wide range of teaching and learning styles and modes, in their program;
- to ensure that all students, regardless of the mode of study, have equality of opportunity in acquiring the specified graduate attributes and capabilities;
- to ensure that graduates are eligible for the Engineering Technologist Graduate grade of membership with Engineers Australia, and for membership of other appropriate professional bodies.

Program structure

The Bachelor of Engineering Technology program consists of core, major study and Elective components. Students enrolled in the Bachelor of Engineering Technology program may undertake a professional specialisation in one of seven major discipline areas:

- Agricultural Engineering
- Civil Engineering
- Computer Systems Engineering
- Electrical and Electronic Engineering
- Environmental Engineering
- Infrastructure Management
- Mechanical Engineering
- Power Engineering.

The Bachelor of Engineering Technology program comprises 24 academic and several practice units and involves three years of full-time study or six years of part-time study. The program is available in the on-campus mode and in the external mode of study. In order to be eligible for the award, students must complete the program within a maximum of five years of full-time study, or 10 years of part-time study, from the date of their initial enrolment.

The Faculty of Health, Engineering and Sciences may permit a student to enrol in an Elective course other than those specified for the accredited program. **Students who wish to enrol in Elective courses other than those listed, must obtain written approval prior to enrolling in the course.**

To satisfy the requirements of the program students must complete all of the Academic courses and the Practice courses in the following tables that show the recommended enrolment patterns for on-campus and external students. Students following a non-standard enrolment pattern should consult the course synopses to ascertain if a course is offered in another term.

The program structure for each of the major studies in the Bachelor of Engineering Technology is shown in the following pages.

Required time limits

Full-time students have a maximum of five years to complete this program. Part-time students have a maximum of 10 years to complete this program.
A pro-rata adjustment of the maximum time period will apply for those students who transfer from one mode of study to another. A pro-rata reduction in the maximum time period will apply to students who are admitted to a program with advanced standing.

Practical experience

To be eligible to graduate from the Bachelor of Engineering Technology, students must obtain an aggregate of at least 45 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 ENG3909 Work Experience - Technologist 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 of experience that may be credited towards the 45 days, will be determined by the Examiner of ENG3909 Work Experience - Technologist.

IT requirements

Access to an up-to-date computer is necessary. On-campus students can access appropriately equipped laboratories, but should consider acquisition of their own computer. External students should be able to access a computer with the following minimum standards as advised by the University. All students should have access to email and the Internet via a computer running the latest versions of Internet web browsers such as Internet Explorer or Firefox. The University has a wireless network for on-campus students' computers. In order to take advantage of this facility and further enhance their on-campus learning environment, students should consider purchasing a notebook/laptop computer with wireless connectivity. A notebook/laptop may be required for some courses.

Residential schools

External students are required to attend a number of residential schools during their program. These are associated with Practice Courses and are normally conducted at the end of Semester 3 (February), or during the mid-semester recess in Semester 2 (September/October).

The majority of the practical and professional experience requirements for the program are contained within the major recommended enrolment pattern. These are zero unit courses, which are a **compulsory part** of the program, however they do not attract a student contribution charge for Australian Residents or a tuition fee for international students.

Students enrolled in the external offer of a Practice Course **must attend** the residential school for that course. In some cases students enrolled in the on-campus mode may also be required to attend the residential school. Students should only enrol in a Practice Course when they are able to attend the residential school for that course. Practice Courses **may not** be taken earlier than shown except with the permission of the School responsible for the program. In some cases students may enrol in two Practice Courses in one term so they can complete the two residential schools in a two-week period. The actual dates for each residential school are shown in the Residential School schedule in this Handbook.

Safety boots are compulsory in engineering laboratories for several of the Practice courses and are strongly recommended for all other Practice courses.

Articulation

Students who have completed an Associate Diploma or Associate Degree program in Engineering at a Queensland university within the last five years may be able to claim up to a maximum of 16 units of advanced standing in the Bachelor of Engineering Technology program if studying in the same discipline area. Students who have completed an Advanced Diploma program in engineering at a TAFE college within the last five years are eligible to claim up to a maximum of 12 units of advanced standing if studying in the same discipline area provided appropriate modules from the national curriculum have been completed. Students holding an Associate Diploma in Engineering who seek and gain signifi

Other information

Engineering Pathways

A special Pathway has been developed for students who intend to study the Bachelor of Engineering (Honours) once they have completed the Bachelor of Engineering Technology program. Pathway to the Bachelor of Engineering (Honours) maximises the advanced standing (exemptions) students will receive in the Bachelor of Engineering (Honours) program. A Pathway to the Bachelor of Engineering (Honours) has been developed for each of the following Bachelor of Engineering Technology majors into the equivalent Bachelor of Engineering (Honours) major:

- Agricultural Engineering
- Civil Engineering
- Computer Systems Engineering
- Electrical and Electronic Engineering
- Environmental Engineering
- Mechanical Engineering
- Power Engineering

Pathway to the Bachelor of Engineering (Honours) has been specially developed for students who study part-time. Full-time students may seek approval to follow the Pathway to the Bachelor of Engineering (Honours), but it is not timetabled for on-campus students.

Students must have the approval of the Faculty of Health, Engineering and Sciences to undertake the Pathway to the Bachelor of Engineering (Honours). Students are strongly advised to consider and apply for approval for this Pathway as soon as possible in order to maximise the credit they will receive in the Bachelor of Engineering (Honours). This should be done prior to the commencement of the second year of studies if possible.

Before applying for approval students must demonstrate they have the ability to undertake the Bachelor of Engineering (Honours) program by successfully completing the course ENM2600 Advanced Engineering Mathematics as one of their Electives. The Faculty will also consider a student's GPA before granting approval.

Once approval is granted, the Faculty will advise them of the courses they should study when granting approval for them to follow the Pathway to the Bachelor of Engineering (Honours).

Agricultural Engineering Major recommended enrolment pattern

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

To satisfy the requirements of the program students must complete all of the Academic and Practice Courses in the following table that shows the recommended enrolment patterns for on-campus and external students for our Toowoomba campus. Students following a non-standard enrolment pattern should consult the course synopses section of this Handbook to ascertain if a course is offered in another term.

The course AGR2902 Field Practice may involve overnight field trips for which each student will be responsible for their own accommodation costs. This course is not offered in the on-campus mode. On-campus students should enrol in the external mode.

Agricultural Engineering Pathway

It is recommended that students wishing to continue into the Bachelor of Engineering (Honours) (Agricultural Engineering) program using a Pathway should have completed at least eight courses with a GPA greater than

5. Pathway students should enrol in ENM2600 Adv

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Footnotes

† The semester 3 offering of this course is offered in odd numbered years only.

^^ Before enrolling in ENG1901 Engineering Practice 1 is the first in a series of **Practice Courses** designed to enable students to acquire engineering and professional practice skills, including practical and teamwork skills, problem solving and engineering judgement. It is designed principally to cater for the needs of recent school leavers and those lacking any significant experience of the engineering workforce. **Students who have a trade certificate and who have been employed in the engineering industry for some time may be able to claim exemption from the course.**

^ On-campus students should enrol in the external mode.

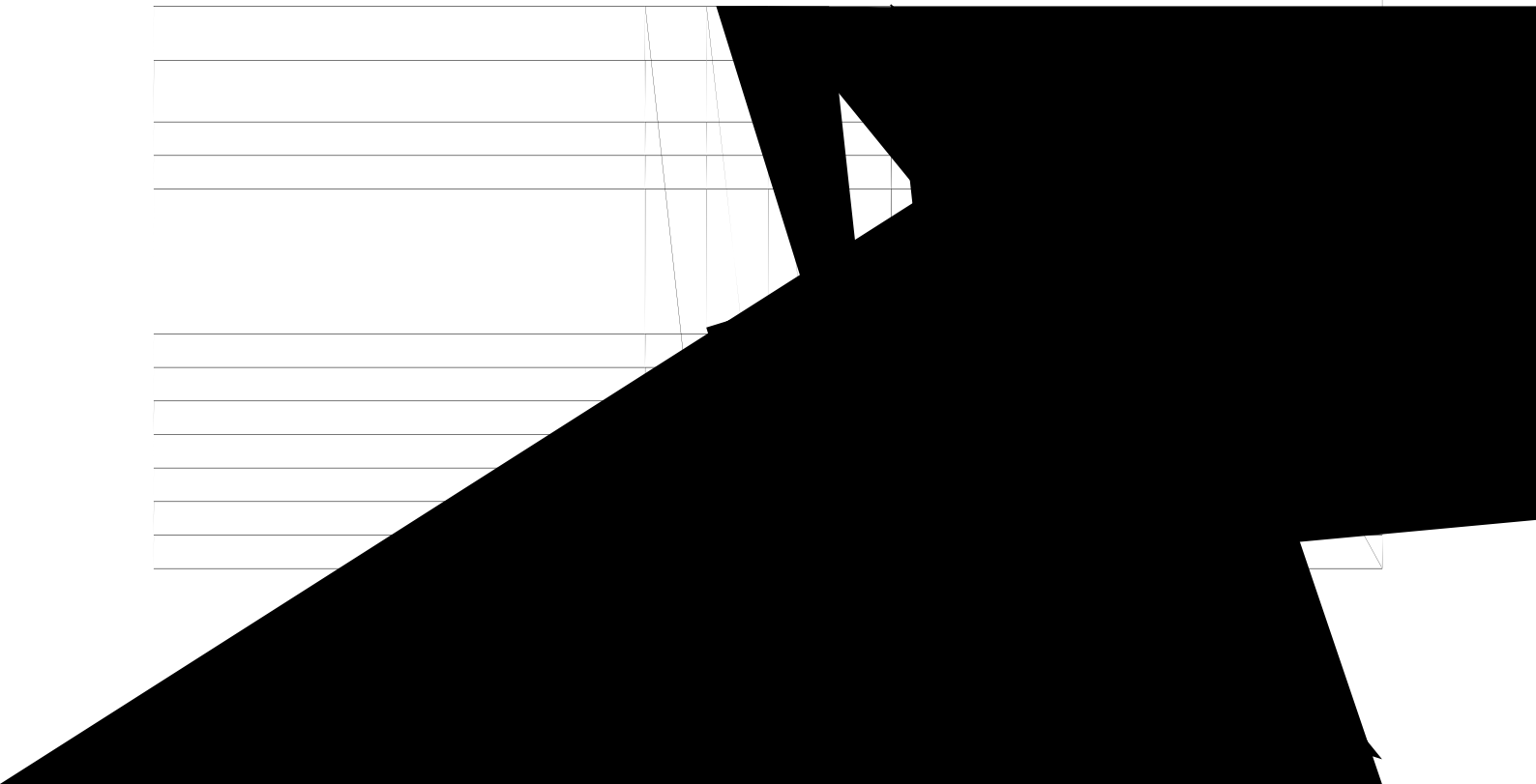
Civil Engineering Major recommended enrolment pattern (Toowoomba and Springfield campus)

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

To satisfy the requirements of the program students must complete all of the Academic and Practice Courses in the following table that shows the recommended enrolment patterns for on-campus and external students for both Toowoomba and Springfield campuses. Students following a non-standard enrolment pattern should consult the course synopses section of this Handbook to ascertain if a course is offered in another term.

Pathways

It is recommended that students wishing to continue into the BENH Bachelor of Engineering (Honours) (Civil Engineering) program using a Pathway should have completed at least eight courses with a GPA greater than 5. Pathway students should enrol in CIV3703 Transport Engineering instead of CIV2702 Municipal Services and enrol in ENM2600 Advanced Engineering Mathematics, , CIV3506 Concrete Structures and ENG3104 Engineering Simulations and Computations as electives.es.



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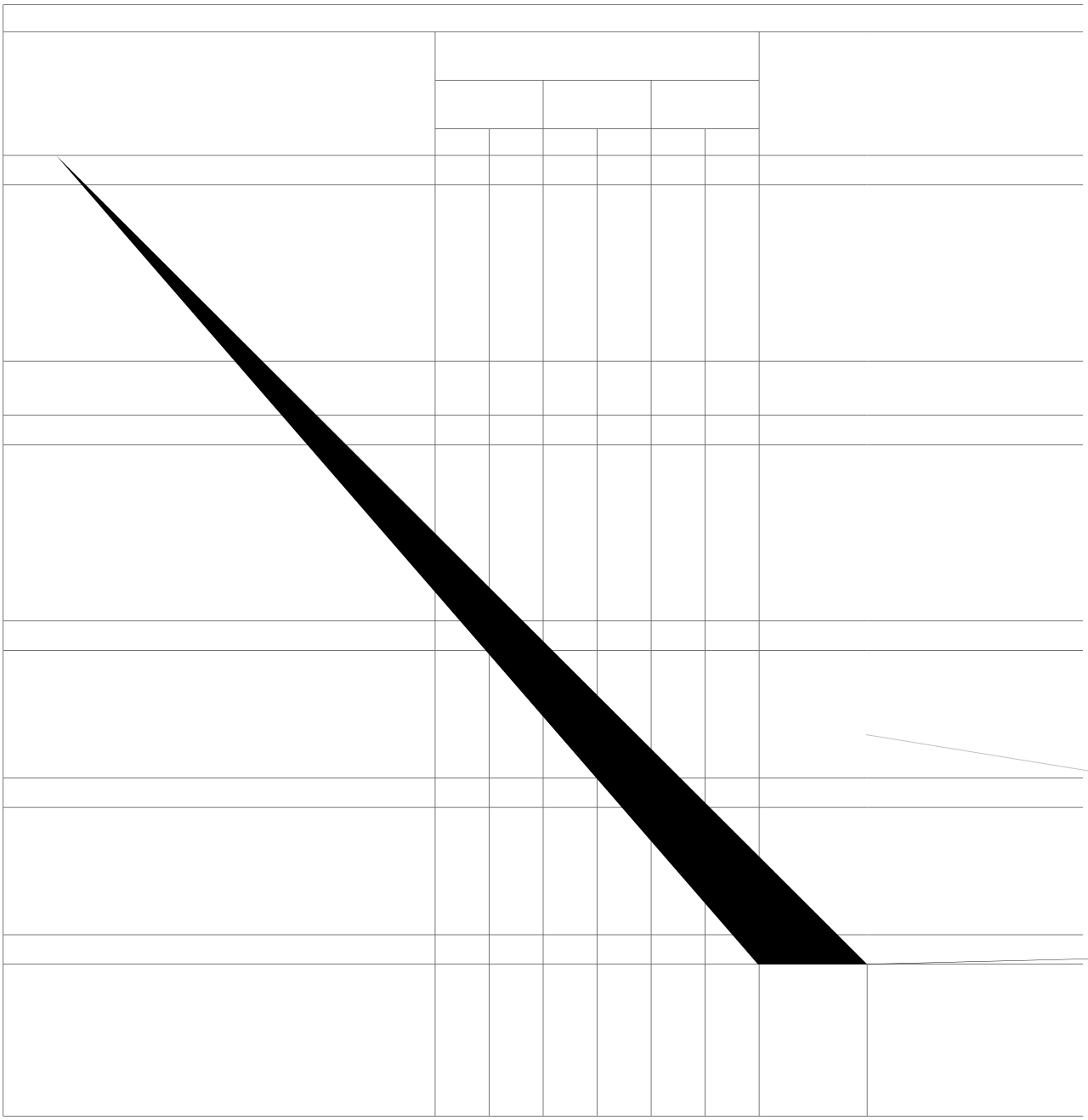

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for our Toowoomba campus. Students following a non-standard enrolment pattern should consult the course synopses section of this Handbook to ascertain if a course is offered in another term.

With approval from the Faculty of Health, Engineering and Sciences, students may also enrol in courses from other engineering, sciences or business programs. A maximum of one unit may be selected.

On entering the Bachelor of Engineering Technology in Computer Systems Engineering, external students are required to purchase a kit of tools comprising an electronic soldering iron, wire strippers, long nose pliers, diagonal cutter, safety glasses and an electronic prototyping 'breadboard'. These will first be required for

Footnotes

This is a Pathway to the Bachelor of Engineering course. Please refer to Other Information - Engineering Pathways at the beginning of this program section.

† The semester 3 offering of this course is offered in odd numbered years only.

^ Before enrolling in ENG1901 Engineering Practice 1 is the first in a series of **Practice Courses** designed to enable students to acquire engineering and professional practice skills, including practical and teamwork skills, problem solving and engineering judgement. It is designed principally to cater for the needs of recent school leavers and those lacking any significant experience of the engineering workforce. **Students who have a trade certificate and who have been employed in the engineering industry for some time may be able to claim exemption from the course**.

‡ The semester 3 offering of this course is offered in even numbered years only.

Electrical and Electronic Engineering Major recommended enrolment pattern

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

To satisfy the requirements of the program students must complete all of the Academic and Practice Courses in the following table that shows the recommended enrolment patterns for on-campus and external students for both Toowoomba and Springfield campuses. Students following a non-standard enrolment pattern should consult the course synopses section of this Handbook to ascertain if a course is offered in another term.

Students wishing to further their knowledge of software may be allowed to choose one Elective from courses offered by the School of Agricultural, Computational and Environmental Sciences. Interested students should peruse the course synopses to see what is available and then seek permission to undertake the course from the Faculty of Health, Engineering and Sciences. A maximum of one unit may be selected.

On entering the Bachelor of Engineering Technology in Electrical and Electronic Engineering external students are required to purchase a kit of tools comprising an electronic soldering iron, wire strippers, long nose pliers, diagonal cutter, safety glasses and an electronic prototyping 'breadboard'. These will first be required for ELE2501 Electronic Workshop and Production and ELE1502 Electronic Circuits, and further details will be provided on commencement of these courses. Additionally, all students enrolled in course ELE2501 will be required to purchase an electronic kit costing approximately $50. For ELE2702, access to an analogue multimeter and hook-up wire may be required, together with the purchase of some electronic components.

Students who have been granted an exemption in the course ELE1801 Electrical Technology are strongly advised to purchase the ELE1801 study materials from the USQ Bookshop and work through these prior to attempting ELE2702 or ELE3803.

Students should also refer to the Other Requirements in the General faculty and program information section of this Handbook.

Pathways

The Pathway to the Bachelor of Engineering (Honours) program is available for this major. Please refer to Other Information - Engineering Pathways at the beginning of this program section.


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(Formerly known as Building and Construction Management)