

Associate Degree of Engineering (ADNG) - AssocDegEng

QTAC code (Australian and New Zealand applicants): Toowoomba campus: 907052; Distance education: 907055; Springfield campus: 927052

CRICOS code (International applicants): 054271G

	On-campus	Distance education
Semester intake:	Semester 1 (February) Semester 2 (July)	Semester 1 (February) Semester 2 (July)
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:	2 years full-time, 4 years part-time or external	
Program articulation:	To: Bachelor of Engineering ; Bachelor of Engineering Technology	

Notes:

Please note that the Civil Engineering major is the only major that is available on-campus at Springfield in the ; [Associate Degree of Engineering](#)
The Associate Degree of Engineering (Civil, Environmental and Mechanical) will be supported on-campus at Fraser Coast in 2014.

Contact us

Future Australian and New Zealand students	Future International students	Current students
Ask a question Freecall (within Australia): 1800 269 500 Phone (from outside Australia): +61 7 4631 5315 Email: studyeng@usq.edu.au	Ask a question Phone: +61 7 4631 5543 Email: international@usq.edu.au	Ask a question Freecall (within Australia): 1800 007 252 Phone (from outside Australia): +61 7 4631 2285 Email usq.support@usq.edu.au

Agricultural Engineering major

This major prepares students for a career as an engineering officer. Students learn to apply practical analysis and technical principles to the areas of sustainable agricultural production, agricultural machinery hydraulics and hydrology.

USQ is the only institution in Australia that offers degrees specialising in Agricultural Engineering.

Career opportunities

Engineering or technical support officer in agricultural machinery, water resources engineering, irrigation, soil and water management, salinisation, drainage, mine rehabilitation, engineering problem solving and management.

Civil Engineering major

This major prepares students for a career as an engineering officer. Students learn to apply practical analysis and technical principles to the areas of design, testing, inspection, plant operation and manufacturing processes.

Career opportunities

The building and development of infrastructure, such as roads, railways, airfields, irrigation works, buildings, harbour facilities, dams, pipelines, sewers, tunnels, canals and disposal works.

Computer Systems Engineering major

This major prepares students for a career as an engineering officer. Students learn to apply practical analysis and technical principles to the areas of design and development of computer systems, including both hardware and software.

Career opportunities

Engineering applications of expert systems, hardware interfacing, computer sales, computer engineering technologist, computer manufacturing and computer systems officer.

Electrical and Electronic Engineering major

This major prepares students for a career as an engineering officer. Students learn to apply practical analysis and technical principles to the areas of design, testing, inspection, plant operation and manufacturing processes.

Career opportunities

Analogue and digital electronics, computer engineering, microprocessors and applications, measurement, instrumentation and control, robotics, telecommunications, microwaves, fibre optics, and other emerging technologies.

Process Engineering major

This major prepares students for a career as an engineering officer in the gas, minerals and manufacturing industries. Students learn to apply practical analysis and technical principles to the areas of fluid mechanics, thermodynamics, sensors, actuation, instrumentation, computer control systems, and graphical user interfaces. Specification, design, analysis and operation of processing equipment and systems are covered. Students in this major may specialise in instrumentation and control, machine systems or process plant technology.

Career opportunities

Process engineering officer in the gas, mineral, manufacturing, instrumentation and control, agricultural and food industries.

Professional accreditation

All majors (except Process Engineering) in this program have received provisional accreditation from Engineers Australia. Provisional accreditation for the Process Engineering major will be sought during 2013. Graduates of pro

- **Australian applicants:** have achieved a Queensland Ov

- Mechanical Engineering
- Power Engineering.
- Process Engineering

The [Associate Degree of Engineering](#) program consists of 16 Academic courses that can be completed in two years of full-time study or four years of part-time study. The program is available in on-campus and external modes of study.

Full-time, on-campus students may, with the permission of the appropriate Program Coordinator, undertake courses by external study. This may be desirable if students wish to extend the range of courses open to them in the Elective areas.

The program structure for each of the major studies in the [Associate Degree of Engineering](#) is shown in the following pages.

Elective Courses

Elective courses are included in the list of Academic courses. Students should select these courses from the Electives list.

Required time limits

Full-time students have a maximum of four years to complete this program. Part-time students have a maximum of eight 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 Associate Degree of Engineering, students must obtain an aggregate of at least 30 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 [ENG2909 Work Experience - Associate](#) 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 Head of Discipline upon request. The acceptability or otherwise of employment experience, and the period of that type of experience that may be credited towards the 30 days, will be determined by the Examiner of [ENG2909 Work Experience - Associate](#).

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).

Practice Courses

The major practical work requirements associated with each of the Faculty's programs are contained within a series of Practice courses. These courses are designed to enhance learning, communication and practical skills through laboratory sessions, workshops, seminars, field trips and group activities.

Practice courses may be undertaken in either on-campus or external mode. Students enrolling externally will be required to attend a **compulsory residential school** where compulsory attendance is indicated. However, students who enrol in Practice courses in on-campus mode may be required to undertake a series of weekly activities and/or attend a compulsory residential school. The only final grades available in these courses are Pass (P) or Fail (F).

Practice courses are **zero** unit courses that 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. External students should ensure that they are able to attend the residential school prior to enrolling in a Practice course. The recommended enrolment pattern for Practice courses is shown in the Recommended Enrolment Pattern in each program entry 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.

[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 work force. Students who have a trade certificate and have been employed in the engineering industry for some time may be able to claim exemption from the course.

Articulation

Students who have completed an associate diploma or an associate degree program in engineering at a Queensland university within the last five years are eligible 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.

Exit points

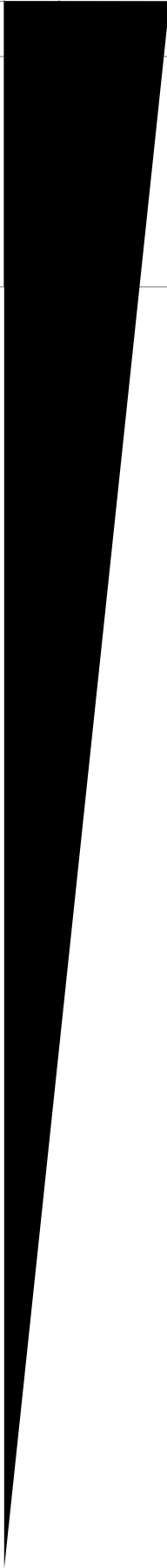
Students who, for whatever reason, are unable to complete the [Associate Degree of Engineering](#), and who satisfy all of the requirements of the [Diploma of Engineering Studies](#) may be permitted to exit with that award.

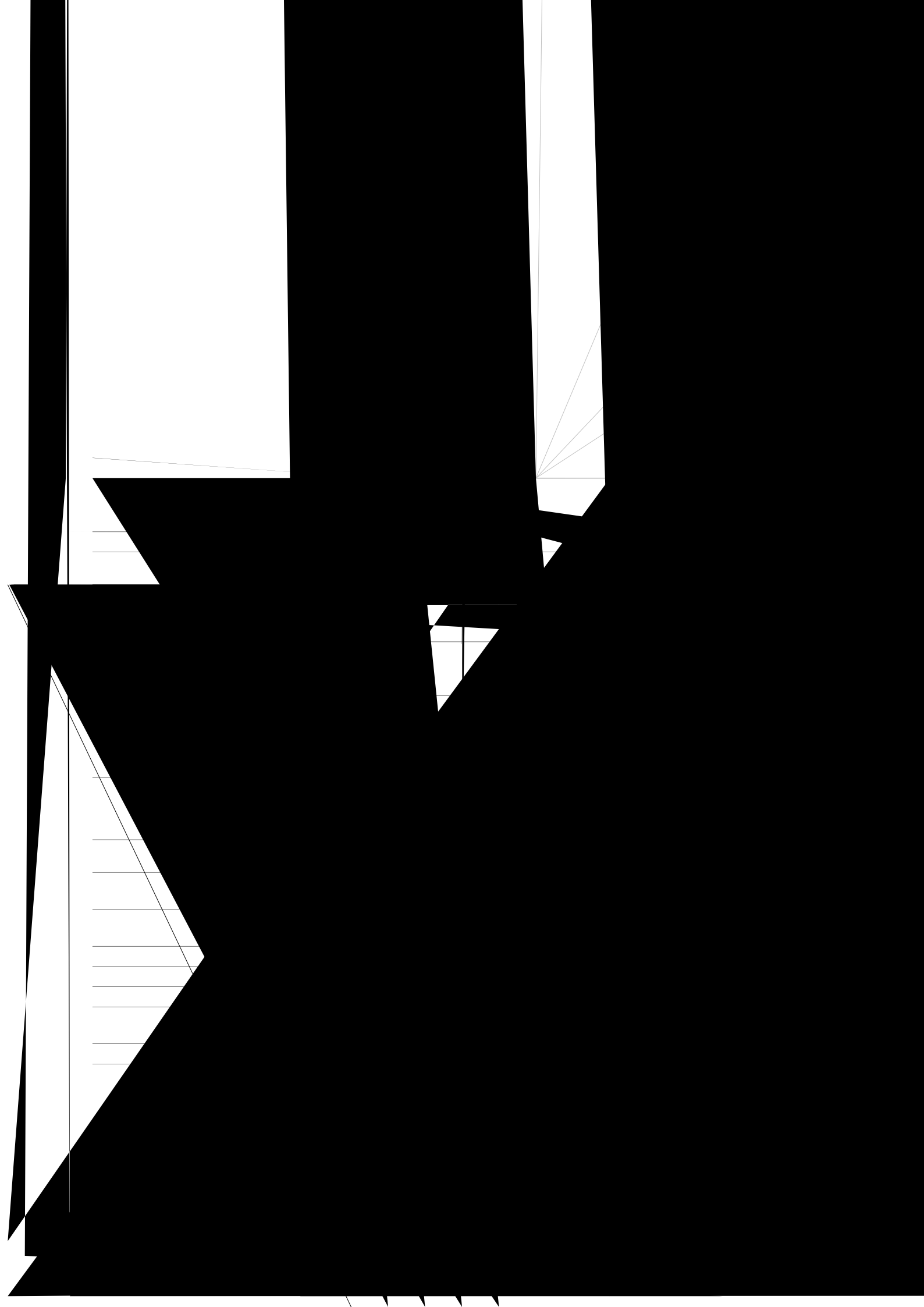
- Computer Systems Engineering
- Electrical and Electronic Engineering
- Environmental Engineering
- Mechanical Engineering
- Power Engineering

Pathway to the [Bachelor of Engineering Technology](#) or the [Bachelor of Engineering](#) 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 Technology](#) or the

Major study: Civil Engineering (Major Study Code: 15433)

							Residential school (compulsory)	Enrolment requirements	Comments





Major study: Computer Systems Engineering (Major Study Code: 15434)									
Course	Year of program and semester in which course is normally studied						Residential school (compulsory /optional)	Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (ONL)				
	Year	Sem	Year	Sem	Year	Sem			
								one of the following Programs: GCEN or GDET or METC or MENS	

Footnotes

Students who achieve a high level in Year 12 Mathematics, or an equiv

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(compulsor									

/optional)

Code: ear Y

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requirements

