

Associate Degree of Engineering (ADNG) - AssocDegEng

QTAC code (Australian and New Zealand applicants): Unspecified (Toowoomba campus: 907052; Distance education: 907055); Civil Engineering (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) Semester 3 (November)
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 (Honours) ; Bachelor of Engineering Science	

Notes:

The Civil Engineering major is the only major that is available on-campus at Springfield.

Footnotes

The semester 3 offer is only available for part-time study in Semester 3.

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

Professional accreditation

All majors (except Agricultural, Mining and Process Engineering) in this program have received full accreditation from Engineers Australia. Provisional accreditation has been granted for the Agricultural Engineering major and provisional accreditation for the Mining and Process Engineering majors will be sought. Graduates of this program are eligible to apply for graduate membership of Engineers Australia as an Engineering Associate (Officer). After further professional development, a graduate member with an Associate Degree may apply for chartered status as an Engineering Officer and, when granted, may use the post-nominal AMIEAust CEngO.

Program aims

The Associate Degree of Engineering is a tertiary level program designed to educate engineering associates in the theory, methods and practices necessary to support professional engineers. To this end, the program is designed to provide a general understanding of a broad field of knowledge, with Electives available in most majors in the final stages of the program to allow a measure of specialisation.

Program objectives

Graduates of the program should be able to demonstrate:

- a knowledge of a branch of engineering practice, appropriate to those functioning at engineering associate level in that branch of the engineering work force
- the ability to analyse and propose solutions to technical problems in accordance with established practices and precedents
- the potential to assume technical responsibility for the completion of tasks and provide a support function for engineers
- an awareness of their limitations and a willingness to seek advice and accept direction from senior engineering associates, engineering technologists and professional engineers
- an ability to communicate effectively both orally and in writing
- a capacity to adapt to changing circumstances and to master new techniques
- appropriate administrative and manual skills
- an aptitude to undertake further learning and study.

Admission requirements

Applicants shall normally:

- have studied four semester units and achieved an exit assessment of 'Sound Achievement' or better in the Queensland Senior Secondary School subject: English and Mathematics A. It is recommended that applicants should also have satisfactorily completed the subject: Mathematics B.

or

- be able to demonstrate that the

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 Associate Degree of Engineering program consists of core, major study and in most majors Elective components. Students enrolled in the Associate Degree of Engineering program may undertake a specialisation in one of nine major discipline areas:

- Agricultural Engineering
- Civil Engineering
- Computer Systems Engineering
- Electrical and Electronic Engineering
- Environmental Engineering
- Mechanical Engineering
- Mining 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 Faculty of Health, Engineering and Sciences, 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 six 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 work 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 e

Credit or exemptions for [ENG2909 Work Experience - Associate](#) will not normally be considered.

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. Specialist software is required for some courses.

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.

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.

Credit

Exemptions/credit will be assessed based on the [USQ Credit and Exemption Procedure](#).

Other information

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](#) section of this Handbook to ascertain if a course is offered in another term.

Articulation and Engineering Pathways

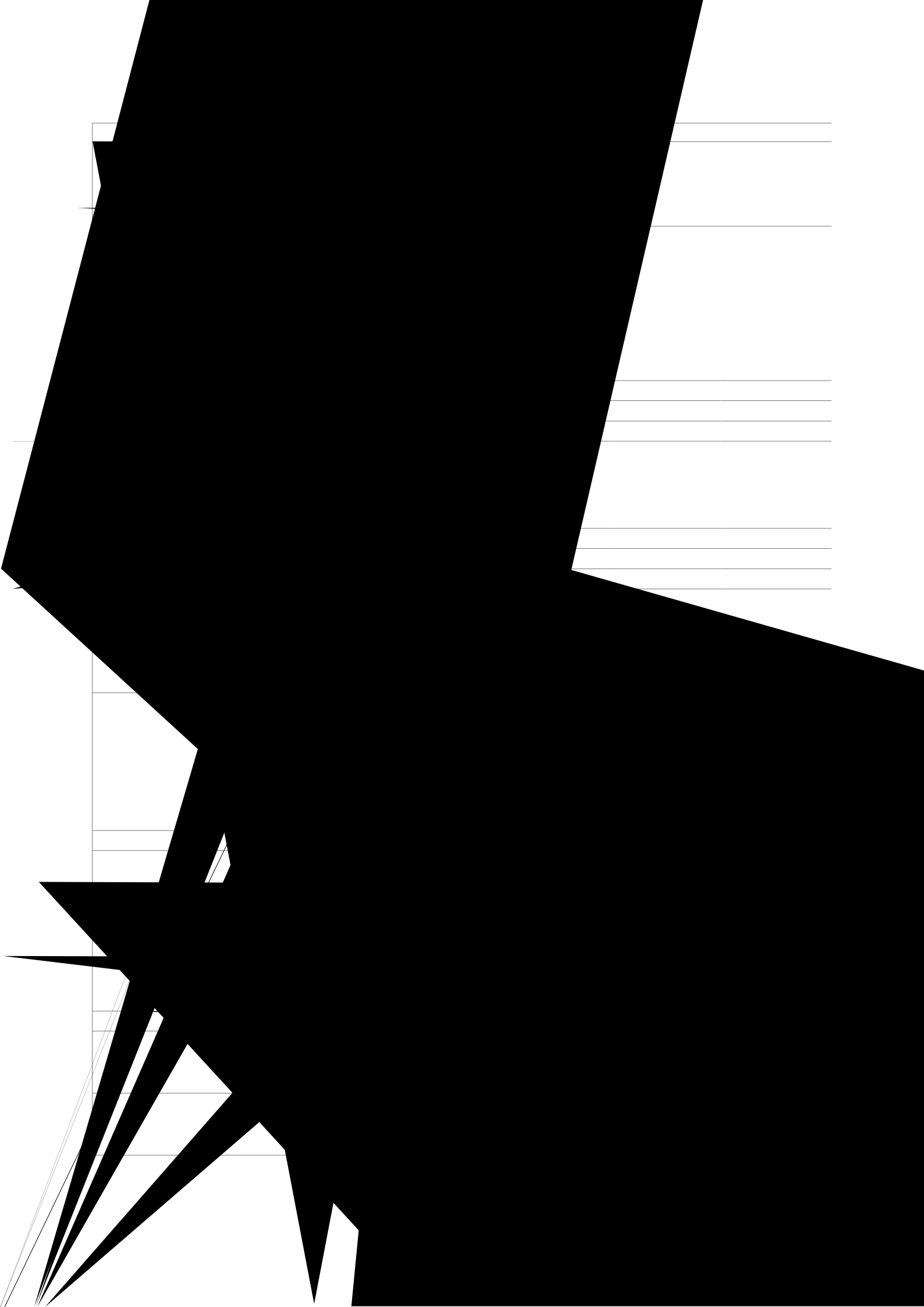
A special Pathway has been developed for students who intend to study the [Bachelor of Engineering Science](#) or the [Bachelor of Engineering \(Honours\)](#) once they have completed the Associate Degree of Engineering program. Pathway to the [Bachelor of Engineering Science](#) or the [Bachelor of Engineering \(Honours\)](#) maximises the advanced standing (exemptions) students will receive in these programs. A Pathway to the [Bachelor of](#)

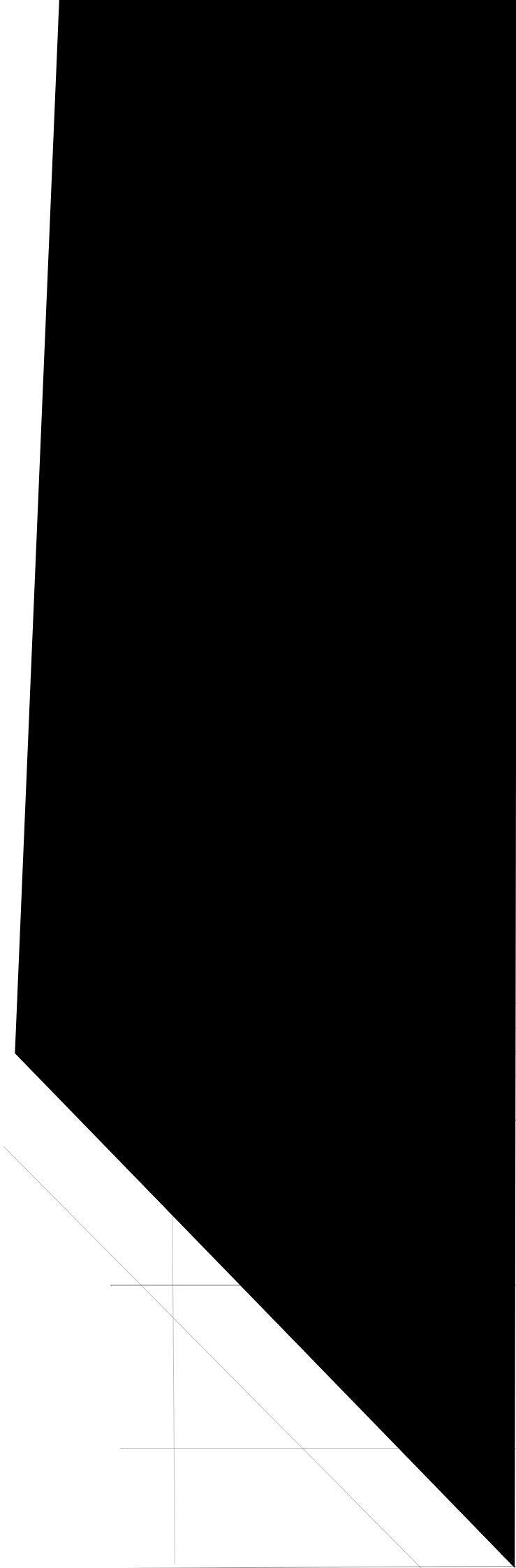
[Engineering Science](#) or the [Bachelor of Engineering \(Honours\)](#) has been developed for each of the following Associate Degree of Engineering majors into the equivalent major:

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

Pathway to the [Bachelor of Engineering Science](#) or 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 Science](#) or the [Bachelor of Engineering \(Honours\)](#), but it is not timetabled for on-campus students.

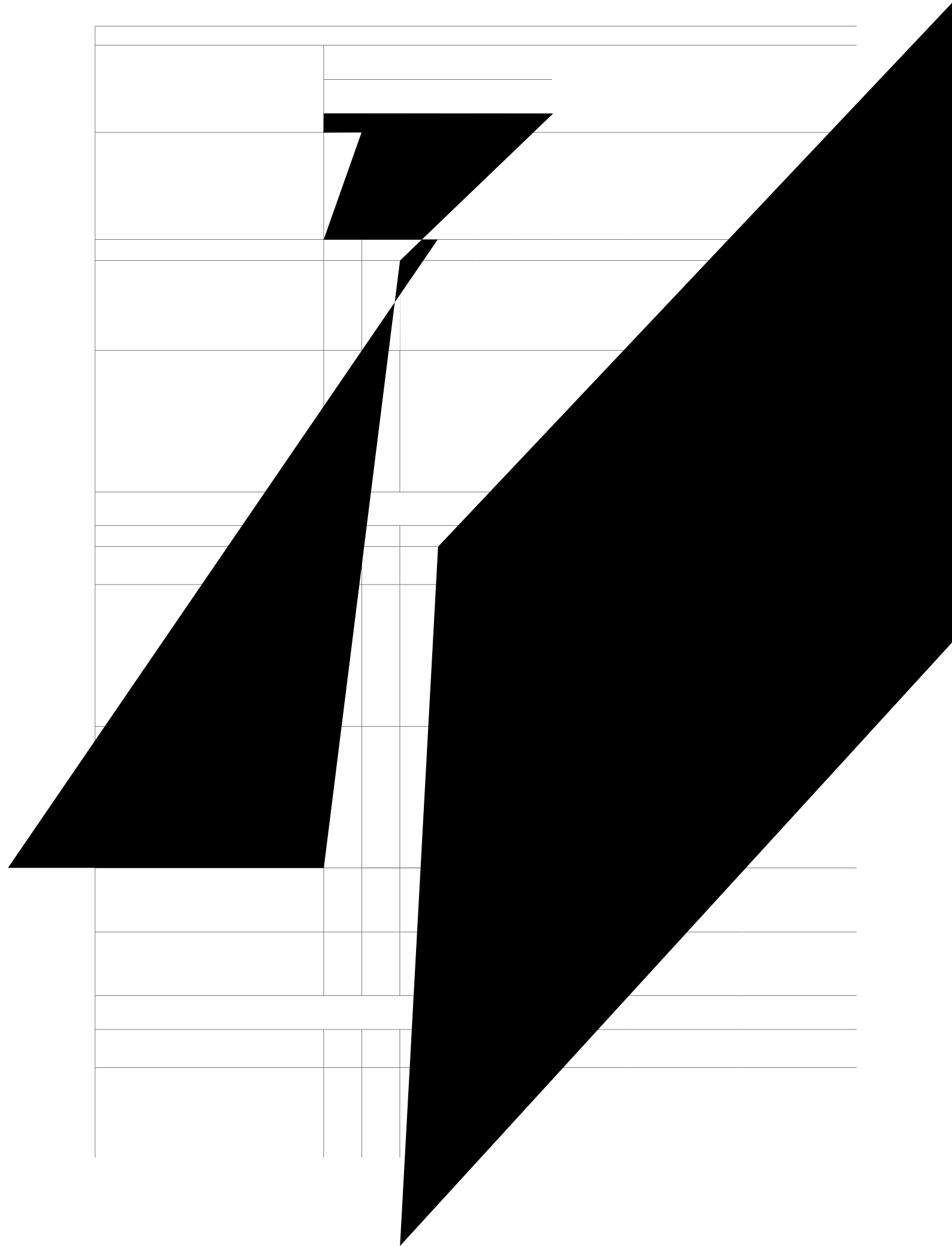
Students must have the approval of the Faculty of Health, Engineering and Sciences to undertake the Pathway to the [Bachelor of Engineering Science](#) or the [Bachelor of Engineering \(Honours\)](#). Students are strongly advised to consider and apply for approval for this Pathway as soon as possible in order to maximise the credit they will receive in the [Bachelor of Engineering Science](#) or the [Bachelor of Engineering \(Honours\)](#). This





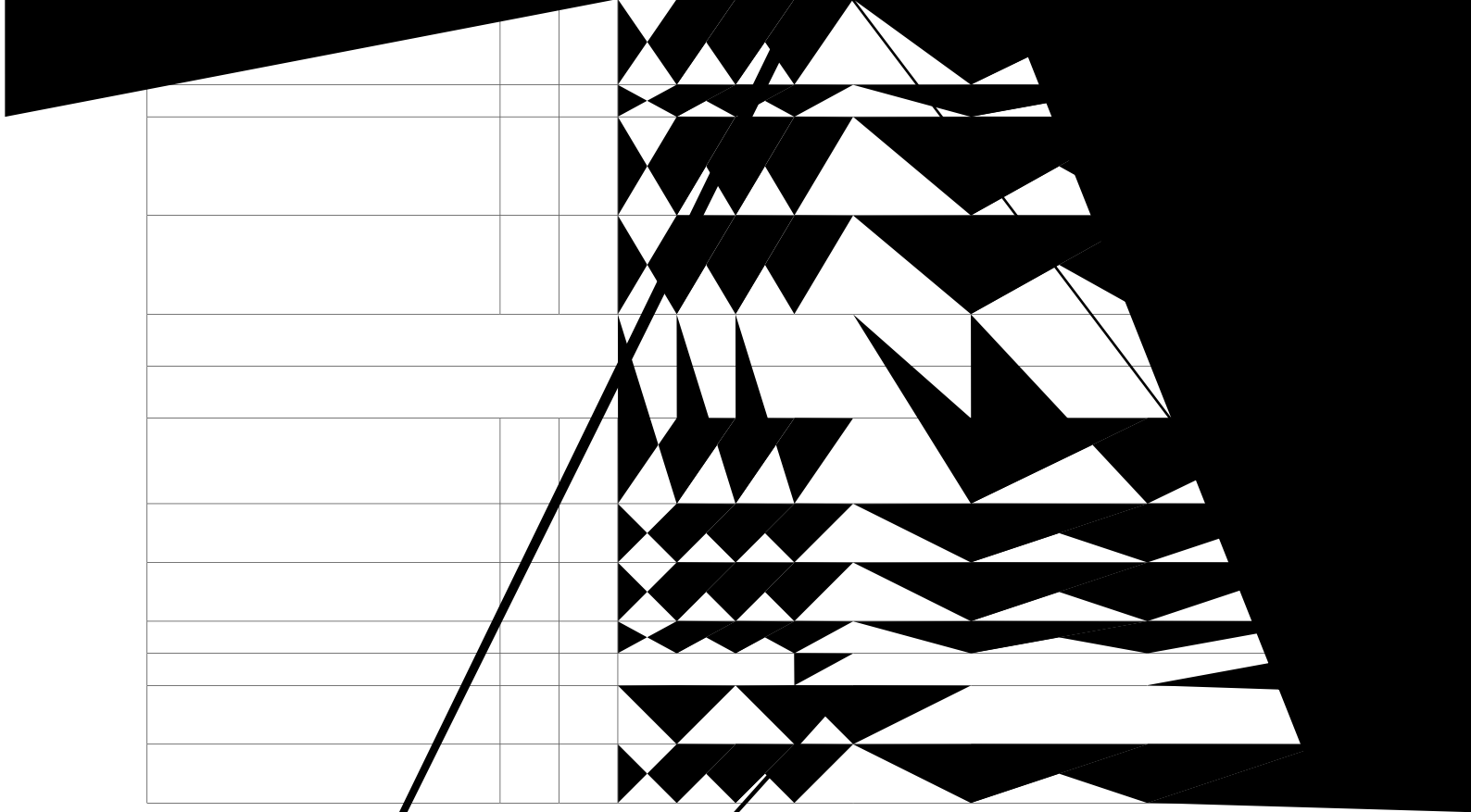
needs of recent school leavers and those lacking an

On entering the Associate Degree of Engineering (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



Engineering Problem Solving and Analysis and ENG2002 Technology, Sustainability and Society as electives from the options available for the intended Pathway program.

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ANCA

requirements

Environmental Engineering (Major

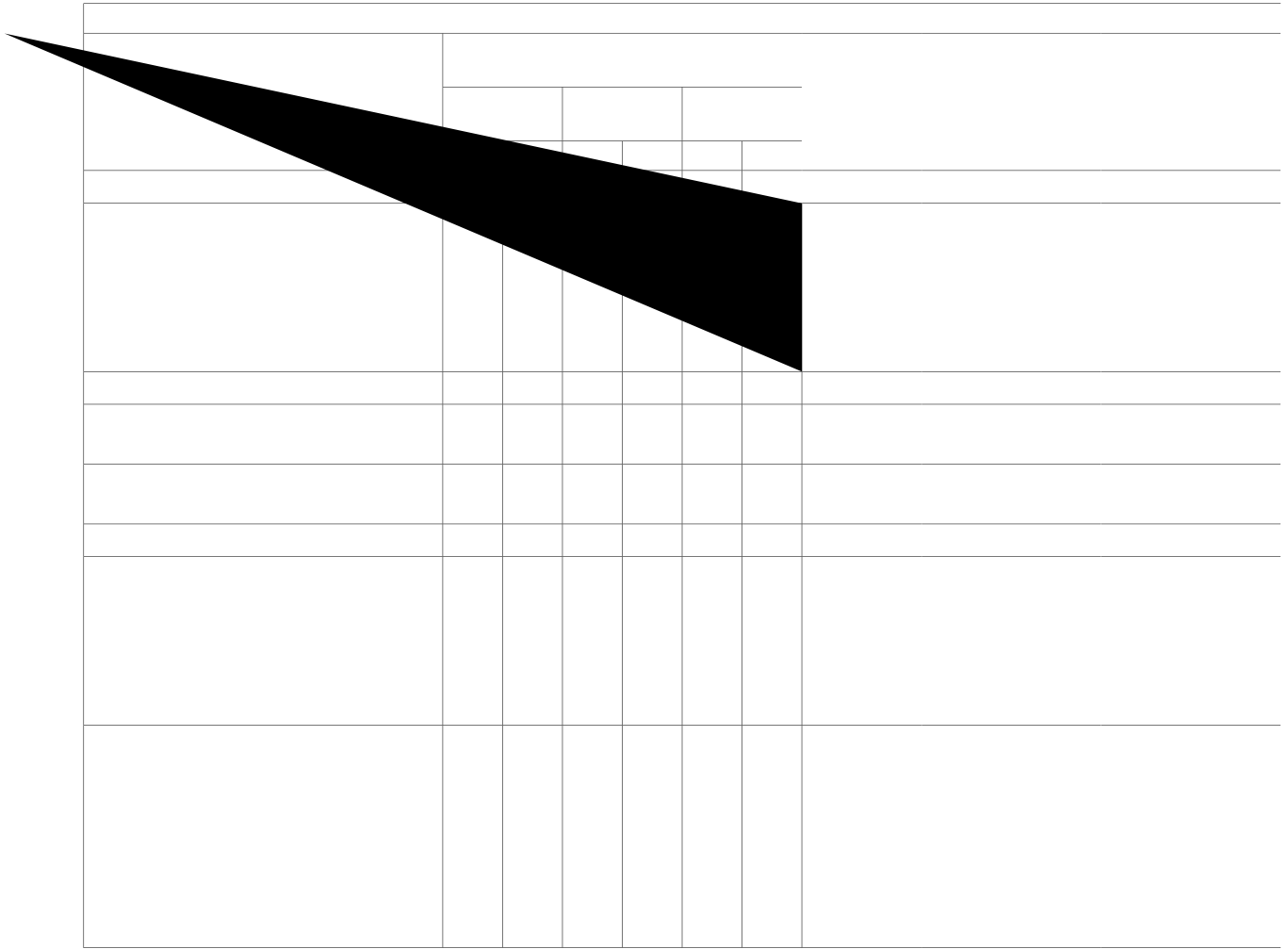
needs of recent school leavers and those lacking any significant experience of the engineering work force. Students who have a trade certificate and have been employed in the engineering industry for some time may be able to claim exemption from the course.

Mining Engineering Major 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.

It is recommended that students wishing to continue into either the [Bachelor of Engineering Science](#) (Civil Engineering) or [Bachelor of Engineering \(Honours\)](#) (Civil Engineering) programs using a Pathway should have completed at least eight courses, including [ENM1600 Engineering Mathematics](#) in lieu of [ENM1500 Introductory Engineering Mathematics](#). Pathway students should enrol in two electives from the options available for the intended Pathway program.

On entering the Associate Degree of Engineering (Power 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 pro



Major study: Process Engineering (Major Study Code: 16560)									
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			
Process Plant Technology Minor >									
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