

Engineering Doctorate (ENGD) - EngD

	Distance education
Semester intake:	Semester 1 (March) Semester 2 (July) Semester 3 (November)
Fees:	Domestic full fee paying place Research training scheme (RTS)
Standard duration:	5 years minimum and 10 years maximum

Contact us

Future Australian and New Zealand students	Current students
Ask a question Freecall (within Australia): 1800 640 678 Phone (from outside Australia): +61 7 4631 5315 Email: studyeng@usq.edu.au	Ask a question Freecall (within Australia): 1800 007 252 Phone (from outside Australia): +61 7 4631 2285 Email usqassist@usq.edu.au

Program focus

The aim of the Engineering Doctorate program is to enhance the skills of already high performing professional engineers in the areas of detailed technical investigation, applied research and development, innovative design and analysis. The program allows candidates to develop and demonstrate these essential skills by communicating their significant original professional technical achievements as a substantial body of work in a formal academic format. In addition, candidates are likely to acquire some additional key management knowledge and/or broad technological knowledge. The specific set of knowledge will depend on the candidate's choice of courses.

Program aims

The aim of the 24 unit Engineering Doctorate program is to enhance the skills of already high performing professional engineers in the areas of detailed technical investigation, applied research and development, innovative design and analysis. The program allows candidates to develop and demonstrate these essential skills by communicating their significant original professional technical achievements as a substantial body of work in a formal academic format. In addition, candidates are likely to acquire some additional key management knowledge and/or broad technological knowledge. The specific set of knowledge will depend on the candidate's choice of courses.

Program objectives

Students who successfully complete the Engineering Doctorate will be able to demonstrate the ability to:

- critically evaluate knowledge from the professional journals and other information sources relevant to the professional engineering field;
- analyse trends in technology;
- use research skills in the field of professional engineering;
- apply skills in detailed technical investigation of complex and unique engineering problems;
- develop innovative solutions, designs and analyses; and
- present a clear and accurate written account of an extensive and complicated body of work

Depending on the choice of Elective courses, students will also be able to demonstrate the ability to:

- apply selected fundamental management theories and practices;
- apply skills in engineering and technology business;
- evaluate the importance of technological innovation and risk in engineering business; and

- apply knowledge and skills associated with technology management in areas such as sustainable development, technical risk assessment and engineering asset management.

Admission requirements

To be eligible for admission to the program, candidates must:

- possess an appropriate four-year Bachelor degree in Engineering awarded by an Australian university, or an equivalent qualification awarded by an overseas institution, with a high level of academic achievement; and
- be able to demonstrate, or be in a position to produce, their own substantial, original professional contributions in an appropriate Engineering field.

The standing of degrees awarded by an overseas institution will be determined by reference to the [National Office of Overseas Skills Recognition](#) (NOOSR) or other appropriate information services. Prospective candidates should discuss their previous professional level with the Associate Dean (Research) prior to applying for admission into the program.

How to apply

Domestic students

[Application for postgraduate programs](#) may be made directly to USQ. You should ensure you submit your application by the [closing dates](#).

Program fees

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](#).

Research training scheme (RTS)

The Research Training Scheme (RTS) provides Commonwealth-funded higher degree by research (HDR) students with an 'entitlement' to an exemption from course fees for the equivalent of four years full-time study in an accredited HDR program. If a student's RTS entitlement expires before they have completed their program they will be required to pay full tuition fees. As there may be limited RTS places available, some students may be required to pay fees for all or part of their program. The USQ [Office of Research and Higher Degrees](#) will advise students of their eligibility for an RTS place.

Program structure

This program is a 24-unit program made up of eight single-unit Academic and Research Paper courses and 16 units of independent research. The Independent Research courses are designed to enable candidates to obtain credit for their original technical achievements undertaken during their professional employment. The results of this research or original technical achievement will be submitted for examination in a dissertation, which may be a single comprehensive document or may take the form of a short dissertation accompanied by a portfolio of published papers, technical reports and designs. In this latter case the purpose of the dissertation is to link the elements of the portfolio and to provide a clear exposition of the original and novel aspects of the work.

Program completion requirements

Candidates will normally complete the program within six years of part-time study. The maximum duration of the program is 10 years from the first date of enrolment.

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.

IT requirements

Candidates must have Internet access.

Exit points

Candidates who complete four courses from Schedule A may satisfy the requirements for the [Postgraduate Certificate in Engineering](#) program in which case they could exit the program with a [Postgraduate Certificate in Engineering](#).

Candidates who complete seven courses from Schedule A plus [ENG8001 Engineering and Surveying Research Methodology](#) from Schedule B may satisfy the requirements for the [Master of Engineering](#), in which case they could exit the program with a [Master of Engineering](#).

Exemptions

Candidates for admission to the program are eligible to seek advanced standing in the program, in accordance with existing University regulations. Applications for advanced standing should be made prior to enrolling in the program. The maximum number of exemptions permitted in this program will be 12 units. Up to eight units of coursework exemptions will be permitted. Studies used as the basis for claims for advanced standing must be postgraduate studies. They will normally have been completed within a period of five years prior to the date of application for advanced standing.

Enrolment

Candidates for admission to the program should note that some of the courses specify enrolment requirements. This will mean that successful applicants may be enrolling in courses for which they do not have sufficient pre-requisite knowledge. Applicants should refer to the [course synopses](#) section of this publication to determine the enrolment requirements for the courses they intend enrolling in. Candidates will be expected to rectify any deficiencies in their pre-requisite knowledge by private study, guided if necessary by the examiners of the relevant courses.

Recommended enrolment pattern

Candidates must complete:

- seven of the single-unit courses from Schedule A
- [ENG8001 Engineering and Surveying Research Methodology](#) plus 16 Independent Research in Engineering and Surveying courses in Schedule B.

Within Schedule A, up to four other postgraduate courses may be approved as part of the Engineering Doctorate program. Approval for the inclusion of prior studies must be sought at the time of application for this program.

Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)			
	Year	Sem	Year	Sem	Year	Sem		
Schedule A — Elective Studies								
Candidates must complete seven of the following courses from Group 1, 2 or 3:								
Group 1 — Coursework Electives								
ENG8011 Assessment of Future Specialist Technology				1				
ENG8101 Technological Impact and its Management		1		1				
ENG8102 Towards Sustainable Development+				2				
ENG8103 Management of Technological Risk		2		2				
ENG8104 Asset Management in an Engineering Environment		1		1				
ENG8204 Management of Environmental Technology*				2				
ENG8205 Technology Management Practice		2		2				
ENG8206 Whole of Life Facilities Management				2				
ENG8207 Technological Innovation and Development				2			OE	
Group 2 — Approved Electives								
Up to four other postgraduate courses may be approved as part of the EngD program								
Group 3 — Elective Research Papers								
ENG9001 Research Paper 1**								
ENG9002 Research Paper 2**								
ENG9003 Research Paper 3**								
ENG9004 Research Paper 4**								
Schedule B — Compulsory Studies								
Candidates must complete the following course:								
ENG8001 Engineering and Surveying Research Methodology		1,2					1,2	
Plus 16 units of independent research from:								
Distance Education students must enrol in the on-campus offering.								
ENG9011 Independent Research in Engineering and Surveying 1		1						One unit
ENG9012 Independent Research in Engineering and Surveying 2		2						One unit
ENG9021 Independent Research in Engineering and Surveying 1		1						Two units
ENG9022 Independent Research in Engineering and Surveying 2		2						Two units

Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)			
	Year	Sem	Year	Sem	Year	Sem		
ENG9023 Independent Research in Engineering and Surveying 3		3						Two units
ENG9041 Independent Research in Engineering and Surveying 1		1						Four units
ENG9042 Independent Research in Engineering and Surveying 2		2						Four units
ENG9043 Independent Research in Engineering and Surveying 3		3						Four units

Footnotes

+ Not offered in 2010.

* Not offered in 2010

** This course is not available on-campus in 2010.

OE Before enrolling in this course students must check that they have satisfied the 'Recommended prior study' or 'Other enrolment' requirements set out in the Other requisites section of the course specification.

Notes:

Before enrolling in any courses, candidates should read the section entitled Enrolment Requirements.

At least five courses from Schedule A must normally be completed prior to enrolling in the independent research courses.