Graduate Diploma of Engineering Science (GDNS) - Grad Dip Eng Sci

CRICOS code (International applicants): 067688J

	On-campus+*	**External**
Semester intake:	Semester 1 (February) Semester 2 (July)	Semester 1 (February) Semester 2 (July)
Campus:	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:	1 year full-time or 2 years part-time	
Program articulation:	From: Graduate Certificate of Engineering Science, To: Master of Engineering Science	

Footnotes

+ International students on-campus: Semester 1 entry only for the Agricultural Engineering, Electrical and Electronic Engineering, Mechanical Engineering and Power Engineering specialisations. International on-campus students are not eligible for entry in Semester 2.

* One year full-time study is only available for Semester 1 entry.

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: study@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

The Graduate Diploma of Engineering Science is not accredited by any professional bodies other than the University of Southern Queensland.

Program objectives

On completion of this program graduates will be able to:

- demonstrate and interpret an integrated understanding of a complex body of knowledge in one or more disciplines or areas of practice: and
- apply specialised cognitive and technical skills in an advanced body of knowledge or practice in one or more disciplines or areas of practice; and
- critically analyse and reflect upon sources of information to interpret and transmit knowledge, skills and ideas to specialist and non-specialist audiences.

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

To be eligible for admission, applicants must satisfy the following requirements:

- Completion of an Australian university three or four year Bachelor degree in the area of engineering in the relevant cognate specialisation (major), or equivalent.
  Or
  Completion of an appropriate four year Bachelor degree in the area of engineering in a non-cognate specialisation (major field), or equivalent.
- English Language Proficiency requirements for Category 3.

The standing of degrees awarded by an overseas institution will be determined by reference to the Sydney Accord, of which Engineers Australia (EA) is a signatory, and the federal government agency, International Education group, an agency of the Department of Education and Training.

All students are required to satisfy the applicable English language requirements.

If students do not meet the English language requirements they may apply to study a University-approved English language program. On successful completion of the English language program, students 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 a students' higher education and students pay a student contribution amount, which varies depending on the courses undertaken. Students 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. Students 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. Students are able to calculate the fees for a particular course via the Course Fee Finder.

Program structure

The Graduate Diploma of Engineering Science comprises eight single unit academic courses as follows:

Schedule A: Four courses (four units)

Schedule B: Four specialisation courses (four units)

Required time limits

Full-time students have a maximum of two years to complete this program. Part-time students have a maximum of four 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.

Specialisation

The specialisation study provides students with knowledge and skills in a speci

by private study, guided if necessary by the examiners of the relevant courses. Students should contact Faculty Administration if they encounter problems while enrolling in courses with requisites.

Agricultural Engineering specialisation 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.

Course	Year of program and semester in which course is normally studied						Enrolment requirements
	On-campus (ONC)		External (EXT)		Online (ONL)		
	Year	Sem	Year	Sem	Year	Sem	
Schedule A: Core Courses Students must complete all four courses listed in this schedule.							
ENG5001 Professional Skills in Engineering							
ENG8001 Engineering Research Methods		1,2,3				1,2	
AGR8002 Emerging Technologies in Agriculture						2	
ENG8208 Advanced Engineering Project Management		1				1	
Schedule B: Specialisation Courses Students must complete four of the courses listed in this schedule.							
AGR3303 Agricultural Materials and Post-Harvest Technologies		1				1	
AGR3305 Precision and Smart Technologies in Agriculture		1				1	
		1				1	

Specialisation: Civil Engineering (Specialisation Study Code: 16207)						
Course	Year of program and semester in which course is normally studied					Enrolment requirements
	On-campus (ONC)		External (EXT)		Online (ONL)	
	Year	Sem	Year	Sem	Year	Sem	
ENG5001 Professional Skills in Engineering		1,2				1,2	
ENG8001 Engineering Research Methods		1,2,3				1,2	
ENG8208 Advanced Engineering Project Management		1				1	

Schedule B: Specialisation Courses Students must complete four of the courses listed in this schedule.

Course	Year	Sem	Year	Sem	Year	Sem	Enrolment requirements
CIV3403 Geotechnical Engineering		2				2	Pre-requisite: CIV2401 or CIV2403 or Students must be enrolled in one of the following Programs: GCEN or METC or MEPR or GCNS or GDNS or MENS
CIV3505 Structural Analysis		1				1	Pre-requisite: MEC2402 and (MAT1502 or ENM1600 or MAT1102) or Students must be enrolled in one of the following Programs: GCEN or METC or MEPR or GCNS or GDNS or MENS
CIV4508 Structural Design II		1				1	Pre-requisite: CIV3505 and CIV3506 or Students must be enrolled in one of the following Programs: GCEN or METC or MEPR or GCNS or GDNS or MENS
CIV5705 Pavement Design and Analysis		1				1	Pre-requisite: CIV3703 or Students must be enrolled in one of the following Programs: GCNS or GDNS or MENS or PGCN or GCAE or MEPR
ENG3104 Engineering Simulations and Computations		2				2	Pre-requisite: (ENM2600 or MAT2100 or MAT2500) or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS
ENM2600 Advanced Engineering Mathematics		1				1	Pre-requisite: ENM1600 or Students must be enrolled in one of the following Programs: GCEN or METC or MENS or GDNS or MEPR
ENV3104 Hydraulics II		1				1	Pre-requisite: ENV1101 or ENV2103 or Students must be enrolled in one of the following Programs: GCEN or METC or MEPR or GCNS or GDNS or MENS
							Pre-requisite: ENV1101 or ENV2103 or Students must be I the

Specialisation: Electrical and Electronic Engineering (Specialisation Study Code: 16208)							
Course	Year of program and semester in which course is normally studied						Enrolment requirements
	On-campus (ONC)		External (EXT)		Online (ONL)		
	Year	Sem	Year	Sem	Year	Sem	
ENG8104 Asset Management in an Engineering Environment		1				1	
Schedule B: Specialisation Courses Students must complete four of the courses listed in this schedule.							
ENM2600 Advanced Engineering Mathematics		1				1	Pre-requisite: ENM1600 or Students must be enrolled in one of the following Programs: GCEN or METC or MENS or GDNS or MEPR
ENG3104 Engineering Simulations and Computations		2				2	Pre-requisite: (ENM2600 or MAT2100 or MAT2500) or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS
ELE2504 Electronic Design and Analysis		2				2	Pre-requisite: ELE1502 or Students must be enrolled in one of the following Programs: MEPR or GDNS or MENS or GCNS or GCEN
ELE4605 Fields and Waves		1				1	Pre-requisite: {(MAT1502 or ENM1600) and ELE2103 and ELE2601} or Students must be enrolled in one of the following Programs: MEPR or MENS or GCNS or GDNS
ELE3107 Signal Processing		2				2	
ELE4606 Communication Systems		2				2	Pre-requisite: (ELE2504 and ELE2601) or Students must be enrolled in one of the following Programs:

Specialisation: Environmental Engineering (Specialisation Study Code: 16209)							
Course	Year of program and semester in which course is normally studied						Enrolment requirements
	On-campus (ONC)		External (EXT)		Online (ONL)		
	Year	Sem	Year	Sem	Year	Sem	
							GDET or METC or MEPR or GCNS or GDNS or MENS
ENV3104 Hydraulics II		1				1	Pre-requisite: ENV1101 or ENV2103 or Students must be enrolled in one of the following Programs: GCEN or METC or MEPR or GCNS or GDNS or MENS
ENV5205 Solid and Liquid Waste Treatment		1				1	
ENV4204 Environmental Technology		1				1	Pre-requisite: MAT1100 or MAT1500 or ENM1600 or Students must be enrolled in one of the following Programs: GCEN or METC or MENS or GCNS or GDNS or MSST or MEPR
ENV4107 Water Resources Engineering		2				2	Pre-requisite: (ENV3104 and ENV3105) or Students must be enrolled in one of the following Programs: GCEN

Specialisation: Power Engineering (Specialisation Study Code: 16212)							
Course	Year of program and semester in which course is normally studied						Enrolment requirements
	On-campus (ONC)		External (EXT)		Online (ONL)		
	Year	Sem	Year	Sem	Year	Sem	
							lo