

Graduate Certificate of Engineering Practice (GEPR) - GradCertEngPrac

| | On-campus | Online |
|---------------------------|--|---|
| Start: | Semester 1 (February) Semester 2 (July) | Semester 1 (February) Semester 2 (July) |
| Campus: | Toowoomba | - |
| Fees: | Commonwealth supported place Domestic full fee paying place | Commonwealth supported place Domestic full fee paying place International full fee paying place |
| Standard duration: | 1 semester full-time or 2 semesters part-time | |

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 Certificate of Engineering Practice is not accredited by any professional bodies.

Program aims

The aim of the Graduate Certificate of Engineering Practice is to produce graduates who are equipped with specialised management knowledge and skills at an advanced level in engineering practice and management. The program enables students to enhance their knowledge and skills in areas of engineering to undertake advanced professional practice.

Program objectives

On completion of this program graduates should be able to:

- Critically analyse, reflect and synthesise information to interpret and transmit knowledge, skills and ideas to a variety of professional and non-professional audiences.
- Apply an advanced and integrated understanding of a complex body of knowledge and theories, concepts and processes to solve complex engineering problems.
- Employ expert and specialised cognitive and technical skills and competencies of contemporary practices and trends.

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-year bachelor degree in engineering, science or technology, or equivalent.
- English Language Proficiency requirements for Category 3.

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 Schedules](#).

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 Schedule](#)

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 Schedules](#).

Program structure

The Graduate Certificate of Engineering Practice comprises four single unit academic courses as follows:

Schedule A: Two courses (two units) to be selected from the following list:

- [ENG8104 Asset Management in an Engineering Environment](#)
- [ENG8205 Project Management Practice](#)
- [ENG8208 Advanced Engineering Project Management](#)

Schedule B: Two courses (two units) to be selected from the recommended enrolment pattern.

Required time limits

Students have a maximum of 2 years to complete this program.

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. Students should be able to access a computer with the following [minimum standards](#). 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.

Credit

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

Enrolment

Candidates for admission to this program should note that some of the courses specify enrolment requirements. This may mean that successful applicants will be enrolling in courses for which they do not have sufficient pre-requisite knowledge. Applicants should refer to the [course specification](#) to determine the enrolment requirements for the courses they intend enrolling in. Graduate students 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. Alternatively, they should enrol in the pre-requisite course(s). These courses will not contribute to the requirements for program completion.

Graduate Certificate of Engineering Practice 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: Students must complete two of the courses listed in this schedule. | | | | | | | |
| ENG8104 Asset Management in an Engineering Environment | | 1 | | | | 1 | |
| ENG8208 Advanced Engineering Project Management | | 1 | | | | 1 | |
| ENG8205 Project Management Practice | | 2 | | | | 2 | |
| Schedule B: Technical courses Students must complete two of the courses listed in this schedule. [#] | | | | | | | |
| AGR3304 Soil Science | | 1 | | | | 1 | |
| CIV1501 Engineering Statics | | 2 | | | | 2,3 | Pre-requisite: ENM1600 or (ENM1500 and CIV1500) or Students must be enrolled in one of the following Programs: MEPR or GCEN or GEPR |
| CIV2403 Geology and Geomechanics | | 2 | | | | 2 | Pre-requisite: CIV1501 or CIV1500 or Students must be enrolled in one of the following Programs: MENS or GCEN or GEPR |
| CIV2502 Structural and Building Technology | | 2 | | 2 | | | |
| CIV2503 Structural Design I | | 2 | | | | 2 | Pre-requisite: (ENG1100 and MEC2402) or (ENG1100 and CIV1501 for students enrolled in one of the following: BETC Infrastructure Management major or BENS Infrastructure Management Engineering major) or Students must be enrolled in: GCEN or GEPR |
| CIV2605 Construction Engineering | | 1 | | | | 1 | |
| CIV2701 Road Design and Location | | 1 | | | | 1 | Pre-requisite: MAT1500 or ENG1500 or ENM1500 or ENM1600 or Students must be |

| 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 | |
| | | | | | | | enrolled in one of the following Programs: GCST or GDST or GCEN or GEPR |
| 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 or GEPR |
| CIV3603 Construction Methods | | | | | | 2 | |
| ENV2103 Hydraulics I | | 1 | | | | 1 | Pre-requisite: CIV1500 or CIV1501 or Students must be enrolled in the following Program: GCEN or GEPR |
| ENV2105 Applied Chemistry and Microbiology | | 1 | | | | 1 | |
| ENV2201 Land Studies | | 1 | | | | 1 | |
| ENV3103 Environmental Pollution | | 2 | | | | 2 | Pre-requisite: ENV2105 and ENV2103 or Students must be enrolled in one of the following Programs: GCEN or METC or MEPR or GCNS or GDNS or MENS or GEPR |
| ENV3105 Hydrology | | 2 | | | | 2 | |
| ELE1801 Electrical Technology | | 2 | | | | 2,3 | Pre-requisite: ENM1500 or ENM1600 or Students must be enrolled in one of the following Programs: MEPR or GCEN or GEPR |
| ELE2101 Control and Instrumentation | | 2 | | | | 2 | Pre-requisite: ENM1500 or ENM1600 or Students must be enrolled in one of the following Programs: MEPR or GCEN or GEPR |
| ELE2103 Linear Systems and Control | | 2 | | | | 2 | |
| ELE2503 Electronic Systems | | 2 | | | | 2 | Pre-requisite: ELE1502 or Students must be enrolled in the following Program: GCEN or GEPR |
| 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 or GEPR |
| ELE2601 Telecommunications Principles | | 1 | | | | 1 | Pre-requisite: (ELE1502 and ELE1801) or Students must be enrolled in one of the following Programs: GCEN or METC or GEPR |
| ELE2704 Electricity Supply Systems | | 2 | | | | 2 | Pre-requisite: ELE1801 or Students must be enrolled in one of the following Programs: MEPR or GCEN or METC or GEPR |
| ELE3105 Computer Controlled Systems | | 1 | | | | 1 | Pre-requisite: ELE2103 or Students must be enrolled in one of the following Programs: GCNS or GCEN or GDNS or MEPR or MENS or METC or GEPR |
| ELE3803 Electrical Plant | | 1 | | | | 1 | Pre-requisite: ELE1801 or Students must be enrolled in one of the following Programs: GCEN or METC or MEPR or GCNS or GDNS or MENS or GEPR |
| MEC2106 Introduction to Thermofluids | | 2 | | | | 2 | Pre-requisite: CIV1500 or CIV1501 or Students must be enrolled in one of the following Programs: BENH or BEBC or BEHS or GCEN or MENS or GEPR |
| MEC2301 Design of Machine Elements | | 2 | | | | 2 | Pre-requisite: (MEC2402 and ENG1100) or Students must be enrolled in one of the following Programs: MEPR or GCEN or GEPR |
| MEC2304 Solid Modelling | | 2 | | | | 2 | |
| MEC2401 Dynamics I | | 1 | | | | 1 | Pre-requisite: ((MAT1502 or MAT1102 or ENM1600) and CIV1501) or Students must |

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| | Year | Sem | Year | Sem | Year | Sem | |
| | | | | | | | be enrolled in one of the following Programs: GCEN or GCNS or METC or MEPR or MENS or GEPR |
| MEC2402 Stress Analysis | | 1 | | | | 1 | Pre-requisite: CIV1501 or Students must be enrolled in one of the following Programs: GCEN or METC or MEPR or GCNS or GDNS or MENS or GEPR |
| MEC2501 Process Control Systems | | | | | | 2 | Pre-requisite: ELE2103 or (MEC1501 and ELE2101 as Co-requisite or Pre-requisite) or Students must be enrolled in the following Program: GEPR |
| ENG8101 Technological Impact and its Management | | 1 | | | | 1 | |
| ENG8103 Management of Technological Risk | | 2 | | | | 2 | |
| ENG8207 Innovation Management and New Product Development | | | | | | 3 | |

Footnotes

Approved Courses will normally be Engineering, Science or Technology courses not lower than Level 2. Consult the Program Convenor via usq.support@usq.edu.au to seek approval to substitute higher level courses if desired.