

## Master of Advanced Engineering (MAEN) - MAdvEng

This program will accept no new admissions from Semester 1, 2023. The information relating to this program is applicable to currently enrolled students and students intending to enrol prior to last semester offered Semester 3, 2022. Students who are interested in this study area should [contact us](#).

	Online
<b>Start:</b>	Semester 1 (February) Semester 2 (July)
<b>Fees:</b>	Domestic full fee paying place International full fee paying place
<b>Standard duration:</b>	1.5 - 2 years part-time

### Notes:

In 2023 the program follows the Semester calendar. The [Academic Calendar and Important Dates](#) webpage will allow you to view and download a copy of the important dates for the Semester calendar.

### Contact us

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

### Professional accreditation

The Master of Advanced Engineering is not accredited by any professional bodies other than the University of Southern Queensland.

### Program aims

The aim of the Master of Advanced Engineering program is to produce graduates who are equipped with essential management knowledge and skills or advanced knowledge in a specialisation. The program allows students to manage complex technological or engineering practices and enhance their knowledge of a particular specialisation for theoretical application, research and professional practice.

### Program objectives

Students who successfully complete the Master of Advanced Engineering should be able to:

- Identify and apply theoretical knowledge to address engineering management issues within a global and cross-cultural context
- Analyse, interpret and design innovative solutions in management, within an engineering context, to satisfy diverse and complex stakeholder requests
- Evaluate and apply advanced technical knowledge and skills to identify problems and propose a range of alternative solutions within the context of the specialisation
- Exhibit and communicate advanced knowledge of research principles, ethics and methods applicable to an engineering specialisation.

## 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 09. Graduates at this level will have specialised knowledge and skills for research, and/or professional practice and/or further learning.

The full set of levels criteria and qualification type descriptors can be found by visiting [www.aqf.edu.au](http://www.aqf.edu.au).

## Admission requirements

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

- Completion of an Australian university four year Bachelor degree in the area of engineering in a relevant cognate specialisation (major), 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

### 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, external or online. Students are able to calculate the fees for a particular course via the [Course Fee Schedules](#).

## Program structure

The Master of Advanced Engineering consists of 8 units of study comprising of 4 core units and a 4 unit specialisation.

Students must undertake:

- Two courses from Schedule A (core courses);
- Four courses from Schedule B (related to the specialisation); and
- An Industry Project course in Schedule C (2 units).

## Specialisation

The specialisation study provides students with knowledge and skills in a specific discipline. The specialisation study areas in the Master of Advanced Engineering are:

- Structural Engineering Design
- Engineering and Project Management

## IT requirements

For information technology requirements, please refer to the [minimum computing standards](#).

## Articulation

Students who have completed the [Graduate Certificate of Advanced Engineering](#) (Advanced Structural Engineering Design, Engineering Management and Engineering Project Management specialisations) are able to apply to articulate into the Master of Advanced Engineering degree, if they satisfy admission requirements.

The standing of degrees awarded by an overseas institution will be determined by reference to the National Office of Overseas Skills Recognition (NOOSR).

## Exit points

Students who have completed four courses in the program may satisfy the requirements to be awarded the [Graduate Certificate of Professional Engineering](#) and apply to exit the Master of Advanced Engineering program with that award.

## Credit

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

## Structural Engineering Design specialisation recommended enrolment pattern

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	
<b>Schedule A: Core Courses</b>							
Students must complete the two courses in this schedule:							
EBE5003 Research Training		1,2				1,2	Pre-requisite: (ENG5001 or ENG5002) and Students must be enrolled in one of the following Programs: MENS or GDNS or GCNS Pre-requisite or Co-requisite: ENG5105
ENG6104 Asset Management in an Engineering Environment						1	
<b>Schedule B: Specialisation Courses</b>							
Students must complete the four courses in this schedule:							
CIV8801 Code-Based Structural Design						1	
CIV6803 Advanced Mechanics and Technology of Fibre Composites						1	Pre-requisite: CIV3506 or MEC3203 or Students must be enrolled in one of the following Programs: PGCN or MEPR or GCNS or GDNS or MENS
CIV8804 Advanced Design Practice using Finite Element Analysis						2	
CIV6802 Advanced Prestressed Concrete <sup>1</sup>						2	
<b>Schedule C Capstone Project</b>							
Students must complete this course:							
ENG8308 Industry Project <sup>#</sup>						2	Pre-requisite: (ENG8300 and ENG8311) or (ENG8001 and Students must be enrolled in the following program: MAEN)

### Footnotes

<sup>]</sup> Offered odd years only

# 2 units

## Engineering and Project Management specialisation recommended enrolment pattern

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	
<b>Schedule A: Core Courses</b>							
Students must complete the two courses in this schedule:							
EBE5003 Research Training		1,2				1,2	Pre-requisite: (ENG5001 or ENG5002) and Students must be enrolled in one of the following Programs: MENS or GDNS or GCNS Pre-requisite or Co-requisite: ENG5105
ENG6104 Asset Management in an Engineering Environment						1	
<b>Schedule B: Specialisation Courses</b>							
Students must complete the four courses in this schedule:							
ENG6208 Advanced Engineering Project Management						1	
ENG6205 Project Management Practice						2	
ENG6207 Innovation Management and New Product Development <sup>£</sup>						3	
MGT8022 Project-Based Management						2, 3	
<b>Schedule C Capstone Project</b>							
Students must complete an Industry Project from this schedule:							
ENG8308 Industry Project <sup>#</sup>						2	Pre-requisite: (ENG8300 and ENG8311) or (ENG8001 and Students must be enrolled in the following program: MAEN)

### Footnotes

- £ In Semester 3, 2023 this course will be delivered as a Transition (9 week) semester, commencing on 13 November 2023 and concluding on 12 January 2024
- # 2 units