

## Master of Engineering Practice (MEPR) - MEngPrac

	External <sup>^*</sup>
<b>Start:</b>	Semester 1 (February) Semester 2 (July) Semester 3 (November)
<b>Fees:</b>	Commonwealth supported place Domestic full fee paying place International full fee paying place
<b>Standard duration:</b>	6 semesters part-time
<b>Program articulation:</b>	From: <a href="#">Bachelor of Engineering Science</a>

### 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.

### Footnotes

<sup>^</sup> External students must be able to attend mandatory residential schools at a UniSQ campus.

<sup>\*</sup> This program is not available to international students unless living in Australia and holding a valid visa with a duration of no less than 3 years.

## Contact us

Future Australian and New Zealand 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> 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 program is accredited by Engineers Australia and graduates are eligible for Graduate membership at the Professional Engineer level.

Provisional accreditation for the Public Works and Infrastructure specialisation has been approved from 2018.

## Program aims

To enable experienced Engineering Technologists to demonstrate and/or acquire the academic, personal, professional, and technical knowledge, skills and understanding required to commence practice as a graduate Professional Engineer in Australia or overseas within appropriate social, cultural, industrial and environmental contexts.

## Program objectives

On completion of this program students should be able to:

- justify, evaluate and illustrate the professional attributes, competencies and capabilities that will lead to recognition by Engineers Australia as a professional engineer
- acquire expert and specialised cognitive and technical skills and competencies in one of the following fields: Civil Engineering; Electrical and Electronic Engineering; Environmental Engineering, Mechanical Engineering; Power Systems Engineering, Public Works and Infrastructure, or Structural Engineering
- demonstrate and/or acquire an advanced and integrated understanding of a complex body of knowledge and theories, concepts and processes in their chosen discipline as a professional engineer
- critically analyse, reflect and synthesise information to interpret and transmit knowledge, skills and ideas to a variety of professional and non-professional audiences

- meet eligibility to apply for Stage 1 Professional Engineer membership of Engineers Australia and to benchmark competency attributes to Engineers Australia Stage 2 Experienced Professional Engineer.

## 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 three year Bachelor degree in the area of engineering science or engineering technology in the relevant cognate major or equivalent and a minimum of five years' professional work experience, or equivalent.<sup>#\*</sup>
- English Language Proficiency requirements for Category 3.

# Candidates may be admitted on the basis of professional registration as a Technologist Member of Engineers Australia. Candidates must be able to demonstrate that they have at least five years' relevant and significant engineering experience usually after graduation and are required to provide a Curriculum Vitae (CV) to demonstrate their industry experience.

\* This program is not available to international students unless living in Australia and holding a valid visa with a duration of no less than 3 years. 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 Australian Education International (AEI) which is a federal government agency.

Prospective students are encouraged to talk to the Faculty of Health, Engineering and Sciences before completing an application form.

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

## Program structure

The Master of Engineering Practice program is a 12-unit program made up of the following three components:

Schedule A: Five core courses (seven units)

- [ENG8300 Self-Assessment Portfolio](#)
- [ENG8311 Workplace Portfolio](#) (2 units)
- [ENG8308 Industry Project](#) (2 units)
- [ENM1600 Engineering Mathematics](#)
- [ENG6208 Advanced Engineering Project Management](#) or [ENG6104 Asset Management in an Engineering Environment](#) or [ENG6205 Project Management Practice](#)

### ENG8300 Self-assessment Portfolio

The course [ENG8300 Self-Assessment Portfolio](#) is the first course students undertake in the program and it is designed to enable students to assess their existing attributes and capabilities and nominate the specific workplace experiences they will use to demonstrate their level of competency in the courses: [ENG8311 Workplace Portfolio](#) and [ENG8308 Industry Project](#). Students will also nominate the Academic courses they will undertake in the program to enable them to satisfy the remaining attribute and capability requirements in the program objectives. It may also be necessary for them to identify some specific types of industrial experience they need to undertake to be able to satisfy any remaining requirements. The outcome of this self-assessment process will be a Pathway to Graduation Plan prepared by the student in consultation with the examiner of the course.

A second component of this course will require students to show that they can write a Career Episode Report that demonstrates their achievement of two of the specified attributes and capabilities. To do this successfully students will have to demonstrate they are able to accurately reflect on their experience and that they have the communication skills that are necessary to write such a report. The information in a Career Episode Report must be verified and endorsed by a professional engineer who is preferably a member of Engineers Australia. Achievement of this component of the course is critical because students will use Career Episode Reports to demonstrate Engineers Australia's Stage 2 and discipline specific competencies in the Workplace Portfolio and Industry Project courses.

At the end of this course students will submit a portfolio containing their Curriculum Vitae, the Career Episode Reports and the Pathway to Graduation Plan. The Examiner of the course will assess the portfolio and either:

- (1) Approve the Pathway to Graduation Plan
- (2) Request modifications to the Plan before it is approved, or
- (3) Decide that the student does not have the required knowledge, experience, attributes or capabilities to be able to satisfactorily complete the program. In this case the student will be cancelled from this program and counselled on alternative ways of achieving their goals. Students in this category may still be awarded a passing grade in the course. If a student has passed this course, they will then be granted an exemption when they enrol in another program in the area of Engineering and Built Environment.

Once a Pathway to Graduation Plan has been approved a student may enrol in the remaining courses in the Plan. The Plan will, in due course, be used by the Faculty to assess the student's eligibility to graduate.

Prospective students should visit the Engineers Australia web site to gain an understanding of the processes which will be followed. In particular, they should view the Stage Two Competencies and the guidelines for achieving Chartered status.

### **The Workplace Portfolio and Industry Project courses**

The Workplace Portfolio course and the Industry Project course are designed to enable students to develop Portfolios that will enable them to obtain credit for their achievements during their employment as an Engineering Technologist. The courses are:

- [ENG8311 Workplace Portfolio](#) (2 units)
- [ENG8308 Industry Project](#) (2 units).

The core course [ENM1600 Engineering Mathematics](#) is designed to give students the enabling skills in mathematics and problem solving needed to undertake the Technical courses in their program.

### **Schedule B: Five technical courses**

During the preparation of their Pathway to Graduation Plan students must nominate how they are going to demonstrate achievement of the objectives of each of the **Technical Courses** defined for their specialisation and listed in this Schedule. They may do this by studying a course or by demonstrating achievement of the objectives of the course in their Workplace Portfolio.

The Academic Affairs Division may allow a student to study a single alternative advanced masters engineering course if:

- the student demonstrates prior knowledge and industrial experience in the Self-assessment Portfolio to cover all listed courses by Workplace Integrated Learning,
- or has support from their employer that such an alternative course is required in the workplace to advance their current career pathway.

### **Schedule C: One Practice Course**

Students must complete the practice course allocated in the recommended enrolment pattern for their specialisation (0 units).

### **Required time limits**

Students have a maximum of 5 years to complete this program.

### **Specialisation**

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

- Civil Engineering
- Electrical and Electronic Engineering
- Environmental Engineering
- Mechanical Engineering
- Power Systems Engineering
- Public Works and Infrastructure
- Structural Engineering

### **IT requirements**

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

### **Residential schools**

The attendance requirement of residential schools within this degree is indicated by the following letters: R = Recommended; HR = Highly Recommended; M = Mandatory. To find out more about [residential schools](#),

visit the [Residential School Schedule](#) to view specific dates for your degree, or visit the [Policy and Procedure Library](#).

Students are required to undertake practical and professional activities relevant to their program through enrolment in a Practice course 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 the relevant Practice course is shown in the Recommended Enrolment Pattern for the program in this Handbook.

Students who enrol in on-campus mode for Practice courses normally undertake a series of mandatory weekly activities and/or attend a mandatory residential school.

External students must attend a single mandatory residential school during their program to obtain experience in practical and professional activities appropriate to the program. The mandatory residential school is included in the Practice course which is conducted in Semester 3 or during the recess period in Semester 2. The dates for each mandatory 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 mandatory 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.

### **Civil Engineering**

- [CIV4908 Civil Design Practice](#)

### **Electrical and Electronic Engineering**

- [ELE3914 Electrical and Electronic Practice D](#) OR
- [ELE3915 Electrical and Electronic Practice E](#)

### **Environmental Engineering**

- [ENV3904 Environmental Engineering Practice](#)

### **Mechanical Engineering**

- [MEC3904 Mechanical Practice 4](#)

### **Power Systems Engineering**

- [ELE3914 Electrical and Electronic Practice D](#) OR
- [ELE3915 Electrical and Electronic Practice E](#)

### **Public Works and Infrastructure**

- [CIV3907 Civil Systems Practice](#) OR
- [ENV3904 Environmental Engineering Practice](#)

### **Structural Engineering**

- [CIV4908 Civil Design Practice](#)

### **Exit points**

Students may apply to transfer to the [Bachelor of Engineering \(Honours\)](#) program and may apply to have the courses completed in the Master of Engineering Practice program credited to their new program.

Students who have completed four courses as per the following requirements: ENG8300 plus one course from (ENG8104, ENG8205, ENG8208) plus two Master of Engineering Practice Schedule B courses, will satisfy the requirements to be awarded the [Graduate Certificate of Engineering Practice](#) and may apply to exit with that award.

## Credit

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

## Enrolment

Students should note that some of the courses specify enrolment requirements (prerequisites). Students should therefore refer to the [Course Specification](#) section to determine the enrolment requirements for the courses they intend enrolling in. Students should avoid enrolling in courses for which they do not have sufficient pre-requisite knowledge. Students will be expected to rectify any deficiencies in their pre-requisite knowledge by private study.

Students should contact Faculty Administration if they encounter problems while enrolling in courses with requisites.

## Civil Engineering specialisation recommended enrolment pattern

Specialisation: Civil Engineering (Specialisation Study Code: 15209)									
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments	
	On-campus (ONC)		External (EXT)		Online (ONL)				
	Year	Sem	Year	Sem	Year	Sem			
<b>Schedule A: Core Courses</b> Students must complete all of the courses in this schedule. Students must study <a href="#">ENG8300 Self-Assessment Portfolio</a> in their first semester of enrolment in the program.									
<a href="#">ENG8300 Self-Assessment Portfolio</a>						1,2,3			
<a href="#">ENG8311 Workplace Portfolio</a>						1,3	Pre-requisite: <a href="#">ENG8300</a>	2 units	
<a href="#">ENG8308 Industry Project</a>						2,3	Pre-requisite: ( <a href="#">ENG8300</a> and <a href="#">ENG8311</a> ) or (ENG8001 and Students must be enrolled in the following program: MAEN)	2 units	
<a href="#">ENM1600 Engineering Mathematics</a>		1,2				1,2	Enrolment is not permitted in <a href="#">ENM1600</a> if <a href="#">MAT1102</a> or <a href="#">MAT1502</a> has been previously completed		
Select one of the following three courses:									
<a href="#">ENG6104 Asset Management in an Engineering Environment</a>		1				1			
<a href="#">ENG6208 Advanced Engineering Project Management</a>		1				1			
<a href="#">ENG6205 Project Management Practice</a>		2				2			
<b>Schedule B: Technical Courses</b> Students must demonstrate achievement of the objectives of each of the courses in this schedule, this can be achieved by course study or addressing the course objectives within the Workplace Portfolio.									
<b>Note:</b> The Academic Affairs Division may allow a student to study a single alternative advanced masters engineering course if:									
- the student demonstrates prior knowledge and industrial experience in the Self-Assessment Portfolio to cover of all listed courses by Workplace Integrated Learning,									
- or has support from their employer that such an alternative course is required in the workplace to advance their current career pathway.									
<a href="#">CIV5403 Advanced Geotechnical Engineering</a>		2				2	Pre-requisite: CIV2401 or <a href="#">CIV2403</a> or Students must be enrolled in one of the following Programs: GCEN or		

Specialisation: Civil Engineering (Specialisation Study Code: 15209)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (ONL)			
	Year	Sem	Year	Sem	Year	Sem		
							METC or MEPR or GCNS or GDNS or MENS	
<a href="#">CIV4505 Structural Analysis</a>		1				1	Pre-requisite: <a href="#">MEC2402</a> and (MAT1502 or <a href="#">ENM1600</a> or <a href="#">MAT1102</a> ) or Students must be enrolled in one of the following Programs: GCEN or METC or MEPR or GCNS or GDNS or MENS or GEPR	
<a href="#">CIV4506 Concrete Structures</a>		1				1	Pre-requisite: <a href="#">CIV2503</a> or Students must be enrolled in one of the following Programs: GCEN or METC or MEPR or GCNS or GDNS or MENS	
<a href="#">CIV3703 Transport Engineering</a>		2				2		
<a href="#">CIV4508 Structural Design II</a>		1				1	Pre-requisite: (CIV3505 or <a href="#">CIV4505</a> ) and (CIV3506 or <a href="#">CIV4506</a> ) or Students must be enrolled in one of the following Programs: GCEN or METC or MEPR or GCNS or GDNS or MENS	
<a href="#">ENV3104 Hydraulics II</a>		1				1	Pre-requisite: ENV1101 or <a href="#">ENV2103</a> or Students must be enrolled in one of the following Programs: GCEN or METC or MEPR or GCNS or GDNS or MENS	
Select one of the following two courses:								
<a href="#">ENV4203 Public Health Engineering</a>		2				2	Pre-requisite: ENV1101 or <a href="#">ENV2103</a> or Students must be enrolled in one of the following Programs: GCEN or METC or MEPR or GCNS or GDNS or MENS	
<a href="#">CIV5705 Pavement Design and Analysis</a>						1	Pre-requisite: <a href="#">CIV3703</a> or Students must be enrolled in one of the following Programs: GCNS or GDNS or MENS or PGCN or GCAE or MEPR	
<b>Schedule C: One Practice Course</b> Students must complete the practice course.								
<a href="#">CIV4908 Civil Design Practice</a>				1,2			Co-requisite: <a href="#">CIV4508</a> or Students must be enrolled in the following Program: MEPR or MENS	



## Electrical and Electronic Engineering specialisation recommended enrolment pattern

Specialisation: Electrical and Electronic Engineering (Specialisation Study Code: 15210)									
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments	
	On-campus (ONC)		External (EXT)		Online (ONL)				
	Year	Sem	Year	Sem	Year	Sem			
<b>Schedule A: Core Courses</b> Students must complete all of the courses in this schedule. Students must study <a href="#">ENG8300 Self-Assessment Portfolio</a> in their first semester of enrolment in the program.									
<a href="#">ENG8300 Self-Assessment Portfolio</a>						1,2,3			
<a href="#">ENG8311 Workplace Portfolio</a>						1,3	Pre-requisite: <a href="#">ENG8300</a>	2 units	
<a href="#">ENG8308 Industry Project</a>						2,3	Pre-requisite: ( <a href="#">ENG8300</a> and <a href="#">ENG8311</a> ) or (ENG8001 and Students must be enrolled in the following program: MAEN)	2 units	
<a href="#">ENM1600 Engineering Mathematics</a>		1,2				1,2	Enrolment is not permitted in <a href="#">ENM1600</a> if <a href="#">MAT1102</a> or <a href="#">MAT1502</a> has been previously completed		
Select one of the following three courses:									
<a href="#">ENG6104 Asset Management in an Engineering Environment</a>		1				1			
<a href="#">ENG6208 Advanced Engineering Project Management</a>		1				1			
<a href="#">ENG6205 Project Management Practice</a>		2				2			
<b>Schedule B: Technical Courses</b> Students must demonstrate achievement of the objectives of each of the courses in this schedule, this can be achieved by course study or addressing the course objectives within the Workplace Portfolio.									
<b>Note:</b> The Academic Affairs Division may allow a student to study a single alternative advanced masters engineering course if: - the student demonstrates prior knowledge and industrial experience in the Self-Assessment Portfolio to cover of all listed courses by Workplace Integrated Learning, - or has support from their employer that such an alternative course is required in the workplace to advance their current career pathway.									
<a href="#">ELE4307 Real Time Systems</a>		2				2	Pre-requisite: <a href="#">ELE1301</a> or Students must be enrolled in one of the following Programs: GCNS or GDNS or MENS or MEPR		
<a href="#">ELE5805 Power Electronics and Drive Systems</a>		2				2	Pre-requisite: ( <a href="#">ELE1502</a> and <a href="#">ELE1801</a> ) or Students must be enrolled in one of the following Programs: GCEN or METC or MEPR or GCNS or GDNS or MENS		
<a href="#">ELE5001 Industrial Communications Protocols</a>		1				1	Pre-requisite: <a href="#">ELE2601</a> or Students must be enrolled in the following Program: GCNS, GDNS, MENS or MEPR		
<a href="#">ELE3105 Computer Controlled Systems</a>		1				1	Pre-requisite: <a href="#">ELE2103</a> or Students must be enrolled in one of the following Programs: GCNS or GCEN or GDNS		



Specialisation: Electrical and Electronic Engineering (Specialisation Study Code: 15210)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (ONL)			
	Year	Sem	Year	Sem	Year	Sem		
							or MEPR or MENS or METC or GEPR	
<a href="#">ELE3107 Signal Processing</a>		2				2		
<a href="#">ELE3305 Computer Systems and Communications Protocols</a>		1				1		
<a href="#">ELE3506 Electronic Measurement</a>		2				2	Pre-requisite: ( <a href="#">ELE1502</a> and ( <a href="#">ELE2101</a> or <a href="#">ELE2103</a> ) and ( <a href="#">ELE2503</a> or <a href="#">ELE2504</a> )) or Students must be enrolled in one of the following Program s: GCEN or METC or MEPR or MENS	
<b>Schedule C: One Practice Course</b> Students must complete one of the following two practice courses:								
<a href="#">ELE3914 Electrical and Electronic Practice D</a>		1		3			Pre-requisite: ( <a href="#">ELE1801</a> and <a href="#">ELE1301</a> and <a href="#">ELE1502</a> ) or Students must be enrolled in one of the following Program s: MENS or MEPR	
<a href="#">ELE3915 Electrical and Electronic Practice E</a>		2		2			Pre-requisite: <a href="#">ELE1801</a> and <a href="#">ELE1301</a> and <a href="#">ELE1502</a> or S tudents must be enrolled in one of the following Program s: MENS or MEPR	

## Environmental Engineering specialisation recommended enrolment pattern

Specialisation: Environmental Engineering (Specialisation Study Code: 15211)									
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments	
	On-campus (ONC)		External (EXT)		Online (ONL)				
	Year	Sem	Year	Sem	Year	Sem			
<b>Schedule A: Core Courses</b> Students must complete all of the courses in this schedule. Students must study <a href="#">ENG8300 Self-Assessment Portfolio</a> in their first semester of enrolment in the program.									
<a href="#">ENG8300 Self-Assessment Portfolio</a>						1,2,3			
<a href="#">ENG8311 Workplace Portfolio</a>						1,3	Pre-requisite: <a href="#">ENG8300</a>	2 units	
<a href="#">ENG8308 Industry Project</a>						2,3	Pre-requisite: ( <a href="#">ENG8300</a> and <a href="#">ENG8311</a> ) or (ENG8001 and Students must be enrolled in the following program: MAEN)	2 units	
<a href="#">ENM1600 Engineering Mathematics</a>		1,2				1,2	Enrolment is not permitted in <a href="#">ENM1600</a> if <a href="#">MAT1102</a> or <a href="#">MAT1502</a> has been previously completed		
Select one of the following three courses:									
<a href="#">ENG6104 Asset Management in an Engineering Environment</a>		1				1			
<a href="#">ENG6208 Advanced Engineering Project Management</a>		1				1			
<a href="#">ENG6205 Project Management Practice</a>		2				2			

Specialisation: Environmental Engineering (Specialisation Study Code: 15211)									
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments	
	On-campus (ONC)		External (EXT)		Online (ONL)				
	Year	Sem	Year	Sem	Year	Sem			
<b>Schedule B: Technical Courses</b> Students must demonstrate achievement of the objectives of each of the courses in this schedule, this can be achieved by course study or addressing the course objectives within the Workplace Portfolio.									
<b>Note:</b> The Academic Affairs Division may allow a student to study a single alternative advanced masters engineering course if: - the student demonstrates prior knowledge and industrial experience in the Self-Assessment Portfolio to cover of all listed courses by Workplace Integrated Learning, - or has support from their employer that such an alternative course is required in the workplace to advance their current career pathway.									
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		
ENV4107 Water Resources Engineering		2				2	Pre-requisite: (ENV3104 and ENV3105) or Students must be enrolled in one of the following Programs: GCEN or METC or MEPR or GCNS or GDNS or MENS		
ENV4203 Public Health Engineering		2				2	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		
ENV4204 Environmental Technology		1				1	Pre-requisite: ENV2105 or Students must be enrolled in one of the following Programs: PDEV or GCEN or METC or MEPR or GCNS or GDNS or MENS		
ENV4205 Water and Wastewater Treatment						1	Pre-requisite: ENV4203 and ENV2105 or Students must be enrolled in one of the following Programs: PDEV or GCEN or METC or MEPR or GCNS or GDNS or MENS		
ENV4106 Irrigation Science		2				2	Pre-requisite: AGR3304 or Students must be enrolled in one of the following Programs: GCEN or GCSC or GDSI or METC or MEPR or GCNS or GDNS or MENS or MSCN.		
LAW2107 Environmental Law **						2	Pre-requisite: LAW1501 or LAW1101 or LAW1500 or ENG2002 or REN1201 or (Students enrolled in BEDU (Legal Studies) or BLAW or LLBP or BALW or BCLW or BZLW - Pre-requisite: LAW1111)		

Specialisation: Environmental Engineering (Specialisation Study Code: 15211)									
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments	
	On-campus (ONC)		External (EXT)		Online (ONL)				
	Year	Sem	Year	Sem	Year	Sem			
	<b>Schedule C: One Practice Course</b> Students must complete the practice course.								
ENV3904 Environmental Engineering Practice				3			Pre-requisite: ENV4203 or Students must be enrolled in one of the following Program s: GDNS or MENS or MEPR or GEPR		

#### Footnotes

\*\* Course is offered in the interim trimester layer, please consult for interim trimester dates.

## Mechanical Engineering specialisation recommended enrolment pattern

Specialisation: Mechanical Engineering (Specialisation Study Code: 15212)									
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments	
	On-campus (ONC)		External (EXT)		Online (ONL)				
	Year	Sem	Year	Sem	Year	Sem			
<b>Schedule A: Core Courses</b> Students must complete all of the courses in this schedule. Students must study <b>ENG8300 Self-Assessment Portfolio</b> in their first semester of enrolment in the program.									
ENG8300 Self-Assessment Portfolio						1,2,3			
ENG8311 Workplace Portfolio						1,3	Pre-requisite: <a href="#">ENG8300</a>	2 units	
ENG8308 Industry Project						2,3	Pre-requisite: ( <a href="#">ENG8300</a> and <a href="#">ENG8311</a> ) or (ENG8001 and Students must be enrolled in the following program: MAEN)	2 units	
ENM1600 Engineering Mathematics		1,2				1,2	Enrolment is not permitted in <a href="#">ENM1600</a> if <a href="#">MAT1102</a> or <a href="#">MAT1502</a> has been previously completed		
Select one of the following three courses:									
ENG6104 Asset Management in an Engineering Environment		1				1			
ENG6208 Advanced Engineering Project Management		1				1			
ENG6205 Project Management Practice		2				2			
<b>Schedule B: Technical Courses</b> Students must demonstrate achievement of the objectives of each of the courses in this schedule, this can be achieved by course study or addressing the course objectives within the Workplace Portfolio.									
<b>Note:</b> The Academic Affairs Division may allow a student to study a single alternative advanced masters engineering course if: - the student demonstrates prior knowledge and industrial experience in the Self-Assessment Portfolio to cover of all listed courses by Workplace Integrated Learning, - or has support from their employer that such an alternative course is required in the workplace to advance their current career pathway.									
MEC4403 Advanced Dynamics		2				2	Pre-requisite: ( <a href="#">MEC2401</a> and ( <a href="#">MAT2500</a> or <a href="#">ENM2600</a> )) or Students must be enrolled in one of the following Program		

Specialisation: Mechanical Engineering (Specialisation Study Code: 15212)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (ONL)			
	Year	Sem	Year	Sem	Year	Sem		
							s: MENS or MEPR or GCNS or GDNS or GEPR	
MEC4108 Advanced Thermofluids		1				1	Pre-requisite: (MEC3107 & ENM2600 & ENG3104) or S tudents must be enrolled in one of the following Program s: MENS or MEPR or GCNS or GDNS or GEPR Students cannot enrol in MEC4108 if they have successfully completed, or are currently enrolled in, MEC4103	
MEC4104 Renewable Energy Technology		2				2	Pre-requisite: ((MEC2101 and MEC3102) or MEC2106) or Students must be enrolled in one of the following Programs: GCEN or GCNS or GDNS or METC or MENS or MEPR	
MEC4302 Computational Mechanics in Design		1				1	Pre-requisite: (MEC2304 and MEC2401 and MEC2402) or Students must be enrolled in one of the following Program s: GCEN or METC or MEPR or GCNS or GDNS or MENS	
MEC3303 Mechanical and Mechatronic System Design		2				2	Pre-requisite: MEC2301 or Students must be enrolled in one of the following Program s: GCEN or METC or GCNS or GDNS or MEPR or MENS	
Select one of the following two courses:								
MEC5100 Computational Fluid Dynamics <sup>#</sup>						1	Pre-requisite: MEC3107 or MEC3102 or MEC4108 or MEC5107 or ENV3104 or ENV5104 or Students must be enrolled in the following Program: MEPR	
MEC5105 Combustion <sup>+#</sup>						2	Pre-requisite: MEC3107 or MEC3102 or MEC4108 or MEC5107 or Students must be enrolled in the following Program: MEPR	
Select one of the following two courses:								
MAT2100 Algebra and Calculus II <sup>^</sup>		2				2	Pre-requisite: MAT1102 or MAT1502 or ENM1600 or S tudents must be enrolled in the following program: MSCN or MEPR or BSED	
ENM2600 Advanced Engineering Mathematics <sup>^\$</sup>		1				1	Pre-requisite: ENM1600 or Students must be enrolled in one of the following Program s: GCEN or METC or MENS or GDNS or MEPR or MSCN	

Specialisation: Mechanical Engineering (Specialisation Study Code: 15212)									
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments	
	On-campus (ONC)		External (EXT)		Online (ONL)				
	Year	Sem	Year	Sem	Year	Sem			
	<b>Schedule C: One Practice Course</b> Students must complete the practice course.								
MEC3904 Mechanical Practice 4		2		2			Pre-requisite: MEC3102 or MEC2106 or Students must be enrolled in one of the following Programs: GDNS or MENS or MEPR		

#### Footnotes

- # Students may choose either [MEC5100 Computational Fluid Dynamics](#) or [MEC5105 Combustion](#) to fit their enrolment pattern.  
 + Offered odd years only.  
 ^ Students may choose either [MAT2100 Algebra and Calculus II](#) or [ENM2600 Advanced Engineering Mathematics](#) to fit their enrolment pattern.  
 § Unavailable online in S3 2023

## Power Systems Engineering specialisation recommended enrolment pattern

Specialisation: Power Systems Engineering (Specialisation Study Code: 16025)									
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments	
	On-campus (ONC)		External (EXT)		Online (ONL)				
	Year	Sem	Year	Sem	Year	Sem			
<b>Schedule A: Core Courses</b> Students must complete all of the courses in this schedule. Students must study <a href="#">ENG8300 Self-Assessment Portfolio</a> in their first semester of enrolment in the program.									
<a href="#">ENG8300 Self-Assessment Portfolio</a>							1,2,3		
<a href="#">ENG8311 Workplace Portfolio</a>							1,3	Pre-requisite: <a href="#">ENG8300</a>	2 units
<a href="#">ENG8308 Industry Project</a>							2,3	Pre-requisite: ( <a href="#">ENG8300</a> and <a href="#">ENG8311</a> ) or (ENG8001 and Students must be enrolled in the following program: MAEN)	2 units
<a href="#">ENM1600 Engineering Mathematics</a>			1,2				1,2	Enrolment is not permitted in <a href="#">ENM1600</a> if <a href="#">MAT1102</a> or <a href="#">MAT1502</a> has been previously completed	
Select one of the following three courses:									
<a href="#">ENG6104 Asset Management in an Engineering Environment</a>			1				1		
<a href="#">ENG6208 Advanced Engineering Project Management</a>			1				1		
<a href="#">ENG6205 Project Management Practice</a>			2				2		
<b>Schedule B: Technical Courses</b> Students must demonstrate achievement of the objectives of each of the courses in this schedule, this can be achieved by course study or addressing the course objectives within the Workplace Portfolio.									
<b>Note:</b> The Academic Affairs Division may allow a student to study a single alternative advanced masters engineering course if: - the student demonstrates prior knowledge and industrial experience in the Self-Assessment Portfolio to cover of all listed courses by Workplace Integrated Learning, - or has support from their employer that such an alternative course is required in the workplace to advance their current career pathway.									
<a href="#">ELE3107 Signal Processing</a>			2				2		

Specialisation: Power Systems Engineering (Specialisation Study Code: 16025)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (ONL)			
	Year	Sem	Year	Sem	Year	Sem		
<a href="#">ELE4307 Real Time Systems</a>		2				2	Pre-requisite: <a href="#">ELE1301</a> or Students must be enrolled in one of the following Programs: GCNS or GDNS or MENS or MEPR	
<a href="#">ELE3803 Electrical Plant</a>		1				1	Pre-requisite: <a href="#">ELE1801</a> or Students must be enrolled in one of the following Programs: GCEN or METC or MEPR or GCNS or GDNS or MENS or GEPR	
<a href="#">ELE4804 Power Systems Protection</a>						1	Pre-requisite: <a href="#">ELE1801</a> or Students must be enrolled in one of the following Programs: GCEN or METC or MEPR or GCNS or GDNS or MENS	
<a href="#">ELE5805 Power Electronics and Drive Systems</a>		2				2	Pre-requisite: ( <a href="#">ELE1502</a> and <a href="#">ELE1801</a> ) or Students must be enrolled in one of the following Programs: GCEN or METC or MEPR or GCNS or GDNS or MENS	
<a href="#">ELE4807 Power Systems Analysis</a>		1				1		
Select one of the following three courses: <sup>+</sup>								
<a href="#">ELE2704 Electricity Supply Systems</a>		2				2	Pre-requisite: <a href="#">ELE1801</a> or Students must be enrolled in one of the following Programs: MEPR or GCEN or METC or GEPR	
<a href="#">ELE4506 Industrial Process Automation</a>						1	Pre-requisite: ( <a href="#">ELE2101</a> or <a href="#">ELE2103</a> ) and <a href="#">ELE3105</a> and <a href="#">MEC2501</a> or Students must be enrolled in the following program: GCNS or GDNS or MENS or MEPR	
<a href="#">MEC4104 Renewable Energy Technology</a>		2				2	Pre-requisite: (( <a href="#">MEC2101</a> and <a href="#">MEC3102</a> ) or <a href="#">MEC2106</a> ) or Students must be enrolled in one of the following Programs: GCEN or GCNS or GDNS or METC or MENS or MEPR	
<b>Schedule C: One Practice Course</b> Students must complete one of the following practice courses:								
<a href="#">ELE3914 Electrical and Electronic Practice D</a>		1		3			Pre-requisite: ( <a href="#">ELE1801</a> and <a href="#">ELE1301</a> and <a href="#">ELE1502</a> ) or Students must be enrolled in one of the following Programs: MENS or MEPR	
<a href="#">ELE3915 Electrical and Electronic Practice E</a>		2		2			Pre-requisite: <a href="#">ELE1801</a> and <a href="#">ELE1301</a> and <a href="#">ELE1502</a> or Students must be enrolled in one of the following Programs: MENS or MEPR	

#### Footnotes

- + Network supply students should select [ELE2704 Electricity Supply Systems](#); instrumentation (or metering) and communication systems students should select [ELE4506 Industrial Process Automation](#); and power generation students should select [MEC4104 Renewable Energy Technology](#).

## Public Works and Infrastructure specialisation recommended enrolment pattern

Specialisation: Public Works and Infrastructure (Specialisation Study Code: 17971)									
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments	
	On-campus (ONC)		External (EXT)		Online (ONL)				
	Year	Sem	Year	Sem	Year	Sem			
<b>Schedule A: Core Courses</b> Students must complete five courses (seven units) from this schedule. Students must study <a href="#">ENG8300 Self-Assessment Portfolio</a> in their first semester of enrolment in the program.									
<a href="#">ENG8300 Self-Assessment Portfolio</a>						1,2,3			
<a href="#">ENG8311 Workplace Portfolio</a>						1,3	Pre-requisite: <a href="#">ENG8300</a>	2 units	
<a href="#">ENG8308 Industry Project</a>						2,3	Pre-requisite: ( <a href="#">ENG8300</a> and <a href="#">ENG8311</a> ) or (ENG8001 and Students must be enrolled in the following program: MAEN)	2 units	
<a href="#">ENM1600 Engineering Mathematics</a>		1,2				1,2	Enrolment is not permitted in <a href="#">ENM1600</a> if <a href="#">MAT1102</a> or <a href="#">MAT1502</a> has been previously completed		
Select one of the following three courses:									
<a href="#">ENG6104 Asset Management in an Engineering Environment</a>		1				1			
<a href="#">ENG6208 Advanced Engineering Project Management</a>		1				1			
<a href="#">ENG6205 Project Management Practice</a>		2				2			
<b>Schedule B: Technical Courses</b> Students must demonstrate achievement of the objectives of each of the courses in this schedule, this can be achieved by course study or addressing the course objectives within the Workplace Portfolio.									
<b>Note:</b> The Academic Affairs Division may allow a student to study a single alternative advanced masters engineering course if:									
- the student demonstrates prior knowledge and industrial experience in the Self-Assessment Portfolio to cover of all listed courses by Workplace Integrated Learning,									
- or has support from their employer that such an alternative course is required in the workplace to advance their current career pathway.									
<a href="#">CIV5403 Advanced Geotechnical Engineering</a>		2				2	Pre-requisite: CIV2401 or <a href="#">CIV2403</a> or Students must be enrolled in one of the following Programs: GCEN or METC or MEPR or GCNS or GDNS or MENS		
<a href="#">CIV3603 Construction Methods</a>						2			
<a href="#">CIV3703 Transport Engineering</a>		2				2			
<a href="#">ENV3104 Hydraulics II</a>		1				1	Pre-requisite: ENV1101 or <a href="#">ENV2103</a> or Students must be enrolled in one of the following Programs: GCEN or METC or MEPR or GCNS or GDNS or MENS		



Specialisation: Public Works and Infrastructure (Specialisation Study Code: 17971)									
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments	
	On-campus (ONC)		External (EXT)		Online (ONL)				
	Year	Sem	Year	Sem	Year	Sem			
Select three of the following six courses:									
ENV4203 Public Health Engineering		2				2	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		
ENV4107 Water Resources Engineering		2				2	Pre-requisite: (ENV3104 and ENV3105) or Students must be enrolled in one of the following Programs: GCEN or METC or MEPR or GCNS or GDNS or MENS		
ENV4205 Water and Wastewater Treatment						1	Pre-requisite: ENV4203 and ENV2105 or Students must be enrolled in one of the following Programs: PDEV or GCEN or METC or MEPR or GCNS or GDNS or MENS		
CIV5704 Road and Street Engineering						2			
CIV5705 Pavement Design and Analysis						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		
URP4001 Movement Network Planning		2				2	Pre-requisite: URP1001 or SVY4203 or Students must be enrolled in one of the following Programs: BENH or MEPR		
Schedule C: One Practice Course Students must complete one of the following practice courses:									
CIV3907 Civil Systems Practice				3			Pre-requisite: CIV2503 or Students must be enrolled in one of the following Programs: MENS or MEPR		
ENV3904 Environmental Engineering Practice				3			Pre-requisite: ENV4203 or Students must be enrolled in one of the following Programs: GDNS or MENS or MEPR or GEPR		

## Structural Engineering specialisation recommended enrolment pattern

Specialisation: Structural Engineering (Specialisation Study Code: 15213)									
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments	
	On-campus (ONC)		External (EXT)		Online (ONL)				
	Year	Sem	Year	Sem	Year	Sem			
	<b>Schedule A: Core Courses</b> Students must complete all of the courses in this schedule. Students must study <a href="#">ENG8300 Self-Assessment Portfolio</a> in their first semester of enrolment in the program.								
<a href="#">ENG8300 Self-Assessment Portfolio</a>						1,2,3			
<a href="#">ENG8311 Workplace Portfolio</a>						1,3	Pre-requisite: <a href="#">ENG8300</a>	2 units	

Specialisation: Structural Engineering (Specialisation Study Code: 15213)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (ONL)			
	Year	Sem	Year	Sem	Year	Sem		
ENG8308 Industry Project						2,3	Pre-requisite: (ENG8300 and ENG8311) or (ENG8001 and Students must be enrolled in the following program: MAEN)	2 units
ENM1600 Engineering Mathematics		1,2				1,2	Enrolment is not permitted in ENM1600 if MAT1102 or MAT1502 has been previously completed	
Select one of the following three courses:								
ENG6104 Asset Management in an Engineering Environment		1				1		
ENG6208 Advanced Engineering Project Management		1				1		
ENG6205 Project Management Practice		2				2		
<b>Schedule B: Technical Courses</b> Students must demonstrate achievement of the objectives of each of the courses in this schedule, this can be achieved by course study or addressing the course objectives within the Workplace Portfolio.								
<b>Note:</b> The Academic Affairs Division may allow a student to study a single alternative advanced masters engineering course if:								
- the student demonstrates prior knowledge and industrial experience in the Self-Assessment Portfolio to cover of all listed courses by Workplace Integrated Learning,								
- or has support from their employer that such an alternative course is required in the workplace to advance their current career pathway.								
CIV5403 Advanced 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	
CIV4505 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	
CIV4506 Concrete Structures		1				1	Pre-requisite: CIV2503 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 or CIV4505) and (CIV3506 or CIV4506) or Students must be enrolled in one of the following Programs: GCEN or METC or MEPR or GCNS or GDNS or MENS	
MEC2401 Dynamics I		1				1	Pre-requisite: ((MAT1502 or MAT1102 or ENM1600) and CIV1501) or Students must be enrolled in one of the following Programs: GCEN or METC or MEPR or GCNS or GDNS or MENS	

Specialisation: Structural Engineering (Specialisation Study Code: 15213)									
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments	
	On-campus (ONC)		External (EXT)		Online (ONL)				
	Year	Sem	Year	Sem	Year	Sem			
							lowing Programs: GCEN or GCNS or METC or MEPR or MENS or GEPR		
Select one of the following two courses:									
MAT2100 Algebra and Calculus II		2				2	Pre-requisite: MAT1102 or MAT1502 or ENM1600 or S tudents must be enrolled in the following program: MSCN or MEPR or BSED		
ENM2600 Advanced Engineering Mathematics <sup>§</sup>		1				1	Pre-requisite: ENM1600 or Students must be enrolled in one of the following Program s: GCEN or METC or MENS or GDNS or MEPR or MSCN		
Select one of the following two courses:									
CIV3603 Construction Methods						2			
CMG3003 Building Services: Methods, Materials and Management						1	Pre-requisite: CMG1001 and CIV2502 or Students must be enrolled in the following Pro gram: MEPR		
Schedule C: One Practice Course Students must complete the practice course.									
CIV4908 Civil Design Practice				1,2			Co-requisite: CIV4508 or Stu dents must be enrolled in the following Program: MEPR or MENS		

**Footnotes**

§ Unavailable online in S3 2023