

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

CRICOS code (International applicants): 067688J

	On-campus+*	External
<b>Semester intake:</b>	Semester 1 (February) Semester 2 (July)	Semester 1 (February) Semester 2 (July)
<b>Campus:</b>	Toowoomba	-
<b>Fees:</b>	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
<b>Standard duration:</b>	1 year full-time or 2 years part-time	
<b>Program articulation:</b>	From: <a href="#">Graduate Certificate of Engineering Science</a> , To: <a href="#">Master of Engineering Science</a>	

### 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
<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 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 should 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](http://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

Students have a maximum of 4 years to complete this program.

## Specialisation

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

- Agricultural Engineering
- Civil Engineering
- Electrical and Electronic Engineering
- Environmental Engineering
- Mechanical Engineering
- Power Engineering
- Structural Engineering

## 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.

## Articulation

The [Graduate Certificate of Engineering Science](#), the Graduate Diploma of Engineering Science, and the [Master of Engineering Science](#) are a nested suite of programs. Students who have completed the Graduate Diploma of Engineering Science are able to apply to articulate with full credit to the [Master of Engineering Science](#).

## Exit points

Students who have completed four courses in the program may satisfy the requirements for the [Graduate Certificate of Engineering Science](#) and therefore may apply to exit the program with a [Graduate Certificate of Engineering Science](#) or [Graduate Certificate of Engineering Technology](#).

## Credit

Exemptions/credit will be assessed based on the [USQ 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, 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.

Specialisation: Agricultural Engineering (Specialisation Study Code: 16206)							
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 all four courses listed in this schedule.							
<a href="#">ENG5001 Professional Skills in Engineering</a>		1,2				1,2	
<a href="#">ENG8001 Engineering Research Methods</a>		1,2,3				1,2	
<a href="#">AGR8002 Emerging Technologies in Agriculture</a>						2	
<a href="#">ENG8208 Advanced Engineering Project Management</a>		1				1	
<b>Schedule B: Specialisation Courses</b> Students must complete four of the courses listed in this schedule.							
<a href="#">AGR3303 Agricultural Materials and Post-Harvest Technologies</a>		1				1	
<a href="#">AGR3305 Precision and Smart Technologies in Agriculture</a>		2				2	
<a href="#">AGR4305 Agricultural Soil Mechanics</a>		1				1	
<a href="#">ENM2600 Advanced Engineering Mathematics</a>		1				1	Pre-requisite: <a href="#">ENM1600</a> or Students must be enrolled in one of the following Programs: GCEN or METC or MENS or GDNS or MEPR
<a href="#">ENG3104 Engineering Simulations and Computations</a>		2				2	Pre-requisite: ( <a href="#">ENM2600</a> or <a href="#">MAT2100</a> or <a href="#">MAT2500</a> ) or Students must be enrolled in one of the following Programs: GCEN or GDET 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
<a href="#">ENV4107 Water Resources Engineering</a>		2				2	Pre-requisite: ( <a href="#">ENV3104</a> and <a href="#">ENV3105</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="#">ENV4106 Irrigation Science</a>		2				2	Pre-requisite: <a href="#">AGR3304</a> or Students must be enrolled in one of the following Programs: GCEN or METC or MEPR or GCNS or GDNS or MENS

## Civil 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.

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	
<b>Schedule A: Core Courses</b> Students must complete all four courses listed in this schedule.							
<a href="#">CIV5704 Road and Street Engineering</a>						2	
<a href="#">ENG5001 Professional Skills in Engineering</a>		1,2				1,2	
<a href="#">ENG8001 Engineering Research Methods</a>		1,2,3				1,2	

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		
<a href="#">ENG8208 Advanced Engineering Project Management</a>		1					1	
<b>Schedule B: Specialisation Courses</b> Students must complete four of the courses listed in this schedule.								
<a href="#">CIV3403 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="#">CIV3505 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
<a href="#">CIV4508 Structural Design II</a>		1					1	Pre-requisite: <a href="#">CIV3505</a> and <a href="#">CIV3506</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					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
<a href="#">ENG3104 Engineering Simulations and Computations</a>		2					2	Pre-requisite: ( <a href="#">ENM2600</a> or <a href="#">MAT2100</a> or <a href="#">MAT2500</a> ) or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS
<a href="#">ENM2600 Advanced Engineering Mathematics</a>		1					1	Pre-requisite: <a href="#">ENM1600</a> or Students must be enrolled in one of the following Programs: GCEN or METC or MENS or GDNS or MEPR
<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
<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="#">MEC5100 Computational Fluid Dynamics</a>							1	Pre-requisite: MEC3107 or <a href="#">MEC3102</a> or <a href="#">ENV3104</a> or Students must be enrolled in the following Program: MEPR

**Footnotes**

\* Not available in on-campus mode in 2019.

## Electrical and Electronic 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.

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	
<a href="#">ENG5001 Professional Skills in Engineering</a>		1,2					1,2
<b>Schedule A: Core Courses</b> Students must complete all four courses listed in this schedule.							

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	
<a href="#">ENG8001 Engineering Research Methods</a>		1,2,3				1,2	
<a href="#">ENG8208 Advanced Engineering Project Management</a>		1				1	
<a href="#">ENG8104 Asset Management in an Engineering Environment</a>		1				1	

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

<a href="#">ENM2600 Advanced Engineering Mathematics</a>		1				1	Pre-requisite: <a href="#">ENM1600</a> or Students must be enrolled in one of the following Programs: GCEN or METC or MENS or GDNS or MEPR
<a href="#">ENG3104 Engineering Simulations and Computations</a>		2				2	Pre-requisite: ( <a href="#">ENM2600</a> or <a href="#">MAT2100</a> or <a href="#">MAT2500</a> ) or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS
<a href="#">ELE2504 Electronic Design and Analysis</a>		2				2	Pre-requisite: <a href="#">ELE1502</a> or Students must be enrolled in one of the following Programs: MEPR or GDNS or MENS or GCNS or GCEN
<a href="#">ELE4605 Fields and Waves</a>		1				1	Pre-requisite: {( <a href="#">MAT1502</a> or <a href="#">ENM1600</a> ) and <a href="#">ELE2103</a> and <a href="#">ELE2601</a> } or Students must be enrolled in one of the following Programs: MEPR or MENS or GCNS or GDNS
<a href="#">ELE3107 Signal Processing</a>		2				2	
<a href="#">ELE4606 Communication Systems</a>		2				2	Pre-requisite: ( <a href="#">ELE2504</a> and <a href="#">ELE2601</a> ) or Students must be enrolled in one of the following Programs: GCEN or METC or MEPR or MENS or GCNS or GDNS
<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

**Environmental 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.

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	

**Schedule A: Core Courses** Students must complete all four courses listed in this schedule.

<a href="#">ENG5001 Professional Skills in Engineering</a>		1,2				1,2	
<a href="#">ENG8001 Engineering Research Methods</a>		1,2,3				1,2	
<a href="#">ENG8208 Advanced Engineering Project Management</a>		1				1	
<a href="#">ECO8012 Methods for Sustainable Development</a>						2	

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

<a href="#">ENM2600 Advanced Engineering Mathematics</a>		1				1	Pre-requisite: <a href="#">ENM1600</a> or Students must be enrolled in one of the following Programs: GCEN or METC or MENS or GDNS or MEPR
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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		
<a href="#">ENG3104 Engineering Simulations and Computations</a>		2					2	Pre-requisite: ( <a href="#">ENM2600</a> or <a href="#">MAT2100</a> or <a href="#">MAT2500</a> ) or Students must be enrolled in one of the following Programs: GCEN or GDET 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
<a href="#">ENV4205 Water and Wastewater Treatment</a> *		1					1	Pre-requisite: <a href="#">ENV4203</a> and <a href="#">ENV2105</a> or Students must be enrolled in one of the following Programs: PDEV or GCEN or METC or MEPR or GCNS or GDNS or MENS
<a href="#">ENV4204 Environmental Technology</a>		1					1	Pre-requisite: <a href="#">ENV2105</a> or Students must be enrolled in one of the following Programs: PDEV or GCEN or METC or MEPR or GCNS or GDNS or MENS
<a href="#">ENV4107 Water Resources Engineering</a>		2					2	Pre-requisite: ( <a href="#">ENV3104</a> and <a href="#">ENV3105</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="#">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

#### Footnotes

\* Not available in on-campus mode in 2019.

## Mechanical 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.

Specialisation: Mechanical Engineering (Specialisation Study Code: 16211)								
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 all four courses listed in this schedule.								
<a href="#">ENG5001 Professional Skills in Engineering</a>		1,2					1,2	
<a href="#">ENG8001 Engineering Research Methods</a>		1,2,3					1,2	
<a href="#">ENG8208 Advanced Engineering Project Management</a>		1					1	
<a href="#">ENG8104 Asset Management in an Engineering Environment</a>		1					1	
<b>Schedule B: Specialisation Courses</b> Students must complete four of the courses listed in this schedule.								
<a href="#">ENM2600 Advanced Engineering Mathematics</a>		1					1	Pre-requisite: <a href="#">ENM1600</a> or Students must be enrolled in one of the following Programs: GCEN or METC or MENS or GDNS or MEPR
<a href="#">ENG3104 Engineering Simulations and Computations</a>		2					2	Pre-requisite: ( <a href="#">ENM2600</a> or <a href="#">MAT2100</a> or <a href="#">MAT2500</a> ) or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS

Specialisation: Mechanical Engineering (Specialisation Study Code: 16211)								
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		
MEC3107 Thermofluids*		1					1	
<a href="#">MEC2401 Dynamics I</a>		1					1	Pre-requisite: ((MAT1502 or <a href="#">MAT1102</a> or <a href="#">ENM1600</a> ) and <a href="#">CIV1501</a> ) or Students must be enrolled in one of the following Programs: GCEN or GCNS or METC or MEPR or MENS
<a href="#">MEC3302 Computational Mechanics in Design</a>		1					1	Pre-requisite: ( <a href="#">MEC2304</a> and <a href="#">MEC2401</a> and <a href="#">MEC2402</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="#">MEC3303 Mechanical and Mechatronic System Design</a>		2					2	Pre-requisite: <a href="#">MEC2301</a> or Students must be enrolled in one of the following Programs: GCEN or METC or GCNS or GDNS or MEPR or MENS
<a href="#">MEC3403 Dynamics II</a>		2					2	Pre-requisite: ( <a href="#">MEC2401</a> and (MAT2500 or <a href="#">ENM2600</a> )) or Students must be enrolled in one of the following Programs: GCEN or MEPR or GCNS or GDNS
<a href="#">MEC5100 Computational Fluid Dynamics</a>							1	Pre-requisite: MEC3107 or <a href="#">MEC3102</a> or <a href="#">ENV3104</a> or Students must be enrolled in the following Program: MEPR
<a href="#">MEC5105 Combustion</a> <sup>^</sup>							2	Pre-requisite: MEC3107 or <a href="#">MEC3102</a> or Students must be enrolled in the following Program: MEPR

#### Footnotes

\* MEC3107 Thermofluids will be offered for the first time in 2020. In 2019, students should enrol in [MEC3102 Fluid Mechanics](#) instead of MEC3107 Thermofluids.

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

## Power 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.

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		
<b>Schedule A: Core Courses</b> Students must complete all four courses listed in this schedule.								
<a href="#">ENG5001 Professional Skills in Engineering</a>		1,2					1,2	
<a href="#">ENG8001 Engineering Research Methods</a>		1,2,3					1,2	
<a href="#">ENG8104 Asset Management in an Engineering Environment</a>		1					1	
<a href="#">ENG8208 Advanced Engineering Project Management</a>		1					1	
<b>Schedule B: Specialisation Courses</b> Students must complete four of the courses listed in this schedule.								
<a href="#">ENM2600 Advanced Engineering Mathematics</a>		1					11	Pre-requisite: <a href="#">ENM1600</a> or Students must be enrolled in one of the following Programs: GCEN or METC or MENS or GDNS or MEPR
<a href="#">ENG3104 Engineering Simulations and Computations</a>		2					2	Pre-requisite: ( <a href="#">ENM2600</a> or <a href="#">MAT2100</a> or <a href="#">MAT2500</a> ) or Students must be enrolled in one of the following Programs: GCEN or



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	
							GDET or METC or MEPR or GCNS or GDNS or MENS
<a href="#">ELE3305 Computer Systems and Communications Protocols</a>		1				1	
<a href="#">ELE3307 Real Time Systems</a>		2				2	Pre-requisite: <a href="#">ELE1301</a> or Students must be enrolled in one of the following Programs: GCEN or METC 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
<a href="#">ELE3805 Power Electronics Principles and Applications</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="#">ELE3807 Power Systems Analysis</a>		1				1	
<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

### Structural 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.

Specialisation: Structural Engineering (Specialisation Study Code: 16213)							
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 all four courses listed in this schedule.							
<a href="#">ENG5001 Professional Skills in Engineering</a>		1,2				1,2	
<a href="#">ENG8001 Engineering Research Methods</a>		1,2,3				1,2	
<a href="#">ENG8208 Advanced Engineering Project Management</a>		1				1	
<a href="#">CIV8802 Advanced Prestressed Concrete</a> *						2	
<b>Schedule B: Specialisation Courses</b> Students must complete four of the courses listed in this schedule.							
<a href="#">ENM2600 Advanced Engineering Mathematics</a>		1				1	Pre-requisite: <a href="#">ENM1600</a> or Students must be enrolled in one of the following Programs: GCEN or METC or MENS or GDNS or MEPR
<a href="#">ENG3104 Engineering Simulations and Computations</a>		2				2	Pre-requisite: ( <a href="#">ENM2600</a> or <a href="#">MAT2100</a> or <a href="#">MAT2500</a> ) or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS
<a href="#">CIV3403 Geotechnical Engineering</a>		2				2	Pre-requisite: <a href="#">CIV2401</a> 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="#">CIV3505 Structural Analysis</a>		1				1	Pre-requisite: <a href="#">MEC2402</a> and ( <a href="#">MAT1502</a> or <a href="#">ENM1600</a> or <a href="#">MAT1102</a> ) or Students must

Specialisation: Structural Engineering (Specialisation Study Code: 16213)							
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	
							be enrolled in one of the following Programs: GCEN or METC or MEPR or GCNS or GDNS or MENS
<a href="#">CIV3506 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="#">CIV4508 Structural Design II</a>		1				1	Pre-requisite: <a href="#">CIV3505</a> and <a href="#">CIV3506</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="#">CIV8803 Advanced Mechanics and Technology of Fibre Composites</a>						1	Pre-requisite: <a href="#">CIV3506</a> or <a href="#">MEC3203</a> or Students must be enrolled in one of the following Programs: GCEN or PGCN or METC or MEPR or GCNS or GDNS or MENS or MENC or MAEN

**Footnotes**

\* Offered odd years only