

Graduate Diploma of Engineering Technology (GDET) - GradDipEngTech

CRICOS code (International applicants): 030321A

This program is offered only to continuing students. No new admissions will be accepted. Students who are interested in this study area should consider the [Graduate Certificate in Engineering Technology](#).

	On-campus	Distance education
Semester intake:	No new admissions	
Campus:	Toowoomba	-
Fees:	Commonwealth supported place Domestic full fee paying place International full fee paying place	Commonwealth supported place Domestic full fee paying place International full fee paying place
Standard duration:	2 semesters full-time or 4 semesters part-time or by distance education	
Program articulation:	From: Graduate Certificate in Engineering Technology To: Master of Engineering Technology	

Contact us

Current students

[Ask a question](#)

Freecall (within Australia): 1800 007 252

Phone (from outside Australia): +61 7 4631 2285

Email usq.support@usq.edu.au

Program focus

The Graduate Certificate program is appropriate for those students who wish to extend their knowledge of a specific area of engineering, whereas the Graduate Diploma program allows the student to develop competencies across a broad discipline area. The Graduate Diploma program also includes provision for students to evaluate information critically, and to select and apply an appropriate research design, methodology and analysis to a particular research problem.

The Masters program builds on the Graduate Diploma and allows the student to take either an Engineering Technology Studies Pathway (12 course work units) or undertake a project and prepare a dissertation (8 course work units and a four unit research project).

Students who complete only four units of coursework will be eligible for the award of Graduate Certificate in Engineering Technology. Students who complete the 12 units of coursework in the Engineering Technology Studies Pathway or eight units of coursework and the dissertation will be eligible for the award of Master of Engineering Technology.

Program aims

Students who successfully complete the Graduate Diploma of Engineering Technology will be able to demonstrate:

- a knowledge of a general discipline area of engineering at an advanced level
- a good standard of written English language communication skill
- a knowledge of the professional journals and other information sources relevant to the specialised area of engineering
- an ability to evaluate research reports and to plan a research project.

Admission requirements

To be eligible for admission to the program, candidates must possess a three-year degree in engineering, science or technology in the same field of study as their proposed major study, or a four-year degree in engineering, from a college or university recognised by the National Office of Overseas Skills Recognition (NOOSR) as awarding degrees that are comparable to the education level of an Australian bachelor degree. Candidates for admission must have demonstrated a high level of academic performance and must also comply with the University requirements for competency in written and spoken English.

Program fees

Commonwealth supported place

A Commonwealth supported place is where the Australian Government makes a contribution towards the cost of your higher education and you as a student pay a [student contribution amount](#), which varies depending on the courses undertaken. You 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. You are able to calculate the fees for a particular course via the [Course Fee Finder](#).

Permanent Humanitarian Visa holders, Permanent Resident visa holders and New Zealand citizens who reside outside Australia pay full tuition fees.

Domestic full fee paying students may be eligible to defer their fees through a Government loan called [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. You are able to calculate the fees for a particular course via the [Course Fee Finder](#).

Program structure

The Graduate Diploma of Engineering Technology consists of any of the available eight units of study taken from the relevant major in the [Master of Engineering Technology](#) program.

Students should note that the choice of courses for full-time on-campus study may be limited due to timetabling constraints and that not all courses will necessarily be offered each year.

Students will normally complete the eight units in two terms of full-time study or four terms of part-time study. Students must complete the program in two years of full-time study or four years of part-time study.

Required time limits

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

A pro-rata adjustment of the maximum time period will apply for those students who transfer from one mode of study to another. A pro-rata reduction in the maximum time period will apply to students who are admitted to a program with advanced standing.

IT requirements

Students should refer to the section entitled [Access to Information Technology Facilities](#) in the General Faculty and Program Information section of this Handbook.

Articulation

The Faculty of Engineering and Surveying offers an articulated program of studies leading to the awards of [Graduate Certificate in Engineering Technology](#), Graduate Diploma of Engineering Technology and [Master of Engineering Technology](#). These programs of study are suitable for graduates of three-year engineering, technology and science programs who wish to further their studies in engineering, and for graduates of four-year professional engineering programs who wish to continue their studies in a different discipline area.

The Graduate Certificate in Engineering Technology and Graduate Diploma of Engineering Technology consist of four and eight units of study, respectively. The Master of Engineering Technology is composed of 12 units of study with the option for either all coursework (via a Engineering Technology Studies Path), or eight units of coursework and a four-unit Project and Dissertation.

The fully articulated program is intended to allow students to enhance and extend their knowledge of a particular engineering discipline area. Major areas of study are Agricultural Engineering, Civil Infrastructure Engineering, Computer Systems and Telecommunications Engineering, Environmental Engineering, Mechanical Engineering, Mechatronic Engineering, Power Systems Engineering, Software Engineering, Structural Engineering and Technology Management. A Transdisciplinary Engineering option is also available for students wishing to enhance their knowledge across a range of Engineering disciplines.

Exit points

Students who, for whatever reason, are unable to complete the Graduate Diploma of Engineering Technology and who satisfy all of the requirements of the [Graduate Certificate in Engineering Technology](#), may be permitted to exit with that award.

Exemptions

Candidates for admission to the program are eligible to seek exemptions in the various programs, in accordance with existing University regulations. For the Graduate Diploma of Engineering Technology the maximum number of exemptions permitted will be four units. Studies used as the basis for claims for exemptions must normally be graduate studies and must not have been used to meet the requirements of any undergraduate award. They will normally have been completed within a period of five years prior to the date of application for exemptions.

Enrolment

Graduates of engineering degree programs who are eligible for professional membership of Engineers Australia will not be permitted to undertake a major study in the same discipline area as their undergraduate degree.

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 synopses](#) section of the Handbook to determine 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.

Students should note that the choice of courses for full-time, on-campus study may be limited due to timetabling constraints and that not all courses will necessarily be offered each year.

Students must complete eight of the available units listed in the tables under each major in the Master of Engineering Technology program.

Agricultural Engineering Major recommended enrolment pattern

Major study: Agricultural Engineering (Major Study Code: 12697)							
Course	Year of program and semester in which course is normally studied					Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)		
	Year	Sem	Year	Sem	Year		
STANDARD ENROLMENT PATTERN*							
AGR3304 Soil Science	1	1		1			
AGR3303 Agricultural Materials and Post-Harvest Technologies	1			1			
ENG3003 Engineering Management	1	1		1			
AGR2301 Agricultural Science	1	2		2			
ENG3103 Engineering Problem Solving Computations	1	2		2			Pre-requisite: (ENG2102 and MAT1502) or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS
ENG8001 Engineering and Surveying Research Methodology	1	1,2				1,2	
Engineering Technology Studies Path*							
ENG8101 Technological Impact and its Management	2	1		1			
ENG8104 Asset Management in an Engineering Environment	2	1		1			
ENG8103 Management of Technological Risk	2	2		2			
ENG8205 Technology Management Practice	2	2		2			
ENV3105 Hydrology	2	2		2			Pre-requisite: ENG2102 or Students must be enrolled in one of the following Program s: GCEN or GDET or METC or MEPR or GCNS or PGCN or GDNS or MENS
ENV4106 Irrigation Science	2	2		2			Pre-requisite: AGR3304 or Students must be enrolled in one of the following Program s: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS
Project and Dissertation Path*							
ENG8002 Project and Dissertation**	2	1,2		1,2			Pre-requisite: ENG8001 Four units
ENV3105 Hydrology	2	2		2			Pre-requisite: ENG2102 or Students must be enrolled in one of the following Program s: GCEN or GDET or METC or MEPR or GCNS or PGCN or GDNS or MENS
ENV4106 Irrigation Science	2	2		2			Pre-requisite: AGR3304 or Students must be enrolled in one of the following Program s: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS

Major study: Agricultural Engineering (Major Study Code: 12697)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)			
	Year	Sem	Year	Sem	Year	Sem		
Elective##								
AGR2302 Agricultural Machinery		1						
AGR4305 Agricultural Soil Mechanics		1						
ENV4107 Water Resources Engineering		2		2			Pre-requisite: (ENV3104 and ENV3105) or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GCEN 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 GDET or METC or MEPR or GCNS or GDNS or MENS	

Footnotes

- * Follow the Standard Enrolment Pattern and adopt either the Engineering Technology Studies Path or the Project and Dissertation Path. The Project and Dissertation Path is normally available only to students achieving a GPA of 5.0 or higher in their first six courses.
- ** Permission to enrol in this course must be obtained from the Program Coordinator.
- ## Approval may be given to substitute one or more Electives for Level 4 and below courses in the Standard Enrolment Pattern. Students need to be aware however that they MUST SEEK PERMISSION to substitute Standard Enrolment Pattern courses with the listed Electives PRIOR to enrolling in them, or they may not be counted towards their degree.

Civil Infrastructure Engineering Major recommended enrolment pattern

Major study: Civil Infrastructure Engineering (Major Study Code: 15396)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)			
	Year	Sem	Year	Sem	Year	Sem		
STANDARD ENROLMENT PATTERN*								
ENV3104 Hydraulics II	1	1		1			Pre-requisite: ENV1101 or ENV2103 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS	
ENV4204 Environmental Technology	1	1		1			Pre-requisite: MAT1100 or MAT1500 or Students must be enrolled in one of the following programs: GCEN or GDET or METC or MENS or GCNS or GDNS or MSST	
CIV5704 Road and Street Engineering				2				
CIV3703 Transport Engineering	1	2		2				
GIS1402 Geographic Information Systems	1	1		1				
ENG8001 Engineering and Surveying Research Methodology	1	1,2				1,2		
Engineering Technology Studies Path*								
ENG8101 Technological Impact and its Management[^]	2	1		1				

Major study: Civil Infrastructure Engineering (Major Study Code: 15396)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)			
	Year	Sem	Year	Sem	Year	Sem		
ENG8104 Asset Management in an Engineering Environment[^]	2	1		1				
ENG8103 Management of Technological Risk[^]	2	2		2				
ENG8205 Technology Management Practice[^]	2	2		2				
ENV4203 Public Health Engineering	2	2		2			Pre-requisite: ENV1101 or ENV2103 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS	
SVY3201 Sustainable Urban Design and Development	2	2		2				
Project and Dissertation Path*								
ENG8002 Project and Dissertation**	2	1,2		1,2			Pre-requisite: ENG8001 Four units	
ENV4203 Public Health Engineering	2	2		2			Pre-requisite: ENV1101 or ENV2103 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS	
SVY3201 Sustainable Urban Design and Development#	2	2		2				
Elective##								
ENV5205 Solid and Liquid Waste Treatment		1					Pre-requisite: ENV4203 or ENV4204 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS	
SVY4203 Urban and Regional Planning		1		1				

Footnotes

- * Follow the Standard Enrolment Pattern and adopt either the Engineering Technology Studies Path or the Project and Dissertation Path. The Project and Dissertation Path is normally available only to students achieving a GPA of 5.0 or higher in their first six courses.
- [^] An approved Level 8 course may be substituted for this course.
- ** Permission to enrol in this course must be obtained from the Program Coordinator.
- # For an enrolment pattern of three courses per semester in the Engineering Technology Studies Path, take this course in year 1, semester 2 (NOT year 2, Semester 2).
- ## Approval may be given to substitute one or more Electives for Level 4 and below courses in the Standard Enrolment Pattern. Students need to be aware however that they MUST SEEK PERMISSION to substitute Standard Enrolment Pattern courses with the listed Electives PRIOR to enrolling in them, or they may not be counted towards their degree.

Computer Systems and Telecommunications Engineering Major recommended enrolment pattern

Major study: Computer Systems and Telecommunications Engineering (Major Study Code: 15641)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)			
	Year	Sem	Year	Sem	Year	Sem		
STANDARD ENROLMENT PATTERN*								
ELE3305 Computer Systems and Communications Protocols	1	1		1				
ELE2601 Telecommunications Principles	1	1		1			Pre-requisite: (ELE1502 and ELE1801) or Students must be enrolled in one of the following Programs: GCEN or GDET or METC	
ELE4607 Advanced Digital Communications*+	1	1					Pre-requisite: ELE1301 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MENS	
ELE3107 Signal Processing	1	2		2				
ELE3307 Real Time Systems	1	2		2			Pre-requisite: ELE1301 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MENS	
ENG8001 Engineering and Surveying Research Methodology	1	1,2				1,2		
Engineering Technology Studies Path *								
ENG8101 Technological Impact and its Management^	2	1		1				
ENG8104 Asset Management in an Engineering Environment^	2	1		1				
CSC8415 Computer Network Programming	2	1		1			Pre-requisite - Students must be enrolled in one of the following Programs: MCOP or MPIT or MCOT or MCTE or MSBI or MSSC or MENC or MEPR or MENS or METC or MSST.	
ENG8103 Management of Technological Risk^	2	2		2				
ENG8205 Technology Management Practice^	2	2		2				
ELE4606 Communication Systems	2	2		2			Pre-requisite: (ELE2504 and ELE2601) or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or MENS	
Project and Dissertation Path*								
ENG8002 Project and Dissertation**	2	1,2		1,2			Pre-requisite: ENG8001 Four units	
CSC8415 Computer Network Programming	2	1		1			Pre-requisite - Students must be enrolled in one of the following Programs: MCOP or	

Major study: Computer Systems and Telecommunications Engineering (Major Study Code: 15641)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)			
	Year	Sem	Year	Sem	Year	Sem		
							MPIT or MCOT or MCTE or MSBI or MSSC or MENC or MEPR or MENS or METC or MSST.	
ELE4606 Communication Systems	2	2		2			Pre-requisite: (ELE2504 and ELE2601) or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or MENS	
Elective##								
CSC2402 Object-Oriented Programming in C++		1		1,3			Pre-requisite: CSC1401 or USQIT16 or Students must be enrolled in one of the following Programs: GDTI or GCSC or GDGS or GCEN or GDET or METC or MCOT or MCTE or MCOP or MPIT or MSBN or MSMS	
CSC2408 Software Development Tools		2		2,3				
ELE2303 Embedded Systems Design		1		1				

Footnotes

- * Follow the Standard Enrolment Pattern and adopt either the Engineering Technology Studies Path or the Project and Dissertation Path. The Project and Dissertation Path is normally available only to students achieving a GPA of 5.0 or higher in their first six courses.
- + One of the Electives listed may be substituted for this course in the Standard Enrolment Pattern.
- ^ An approved Level 8 course may be substituted for this course.
- ** Permission to enrol in this course must be obtained from the Program Coordinator.
- ## Approval may be given to substitute one or more Electives for Level 4 and below courses in the Standard Enrolment Pattern. Students need to be aware however that they MUST SEEK PERMISSION to substitute Standard Enrolment Pattern courses with the listed Electives PRIOR to enrolling in them, or they may not be counted towards their degree.

Environmental Engineering Major recommended enrolment pattern

Major study: Environmental Engineering (Major Study Code: 12698)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)			
	Year	Sem	Year	Sem	Year	Sem		
STANDARD ENROLMENT PATTERN*								
AGR3304 Soil Science	1	1		1				
ENV3104 Hydraulics II	1	1		1			Pre-requisite: ENV1101 or ENV2103 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS	
ENV4204 Environmental Technology	1	1		1			Pre-requisite: MAT1100 or MAT1500 or Students must be enrolled in one of the following programs: GCEN or GDET or METC or MENS or GCNS or GDNS or MSST	
ENV3105 Hydrology	1	2		2			Pre-requisite: ENG2102 or Students must be enrolled in one of the following Program	

Major study: Environmental Engineering (Major Study Code: 12698)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)			
	Year	Sem	Year	Sem	Year	Sem		
							s: GCEN or GDET or METC or MEPR or GCNS or PGCN or GDNS or MENS	
ENG3103 Engineering Problem Solving Computations	1	2		2			Pre-requisite: (ENG2102 and MAT1502) or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS	
ENG8001 Engineering and Surveying Research Methodology	1	1,2				1,2		
Engineering Technology Studies Path*								
ENG8101 Technological Impact and its Management[^]	2	1		1				
ENG8104 Asset Management in an Engineering Environment[^]	2	1		1				
ENG8103 Management of Technological Risk[^]	2	2		2				
ENG8205 Technology Management Practice[^]	2	2		2				
ENV4107 Water Resources Engineering	2	2		2			Pre-requisite: (ENV3104 and ENV3105) or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GCEN or GDNS or MENS	
ENV4203 Public Health Engineering	2	2		2			Pre-requisite: ENV1101 or ENV2103 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS	
Project and Dissertation Path*								
ENG8002 Project and Dissertation**	2	1,2		1,2			Pre-requisite: ENG8001 Four units	
ENV4107 Water Resources Engineering	2	2		2			Pre-requisite: (ENV3104 and ENV3105) or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GCEN or GDNS or MENS	
ENV4203 Public Health Engineering	2	2		2			Pre-requisite: ENV1101 or ENV2103 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS	
Elective##								
CIV3403 Geotechnical Engineering		2		2			Pre-requisite: CIV2401 or CIV2403 or Students must be enrolled in one of the follow	

Major study: Environmental Engineering (Major Study Code: 12698)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)			
	Year	Sem	Year	Sem	Year	Sem		
							ing Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS	
ENV5205 Solid and Liquid Waste Treatment				1			Pre-requisite: ENV4203 or ENV4204 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS	
SVY4203 Urban and Regional Planning		1		1				

Footnotes

- * Follow the Standard Enrolment Pattern and adopt either the Engineering Technology Studies Path or the Project and Dissertation Path. The Project and Dissertation Path is normally available only to students achieving a GPA of 5.0 or higher in their first six courses.
- ^ An approved Level 8 course may be substituted for this course.
- ** Permission to enrol in this course must be obtained from the Program Coordinator.
- ## Approval may be given to substitute one or more Electives for Level 4 and below courses in the Standard Enrolment Pattern. Students need to be aware however that they MUST SEEK PERMISSION to substitute Standard Enrolment Pattern courses with the listed Electives PRIOR to enrolling in them, or they may not be counted towards their degree.

Mechanical Engineering Major recommended enrolment pattern

Major study: Mechanical Engineering (Major Study Code: 15397)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)			
	Year	Sem	Year	Sem	Year	Sem		
STANDARD ENROLMENT PATTERN*								
MEC3102 Fluid Mechanics	1	1		1			Pre-requisite: (MAT2500 and MEC2101) or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS	
MEC3302 Computational Mechanics in Design	1	1		1			Pre-requisite: (MEC2304 and MEC2401 and MEC2402) or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS	
MEC4103 Heat Transfer	1	1		1			Pre-requisite: MEC3102 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or MENS	
MEC2401 Dynamics I	1	2		2			Pre-requisite: (MAT1502 and CIV1501) or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or MENS	
ENG8001 Engineering and Surveying Research Methodology	1	1,2				1,2		
MEC3204 Production Engineering	1	2		2				

Major study: Mechanical Engineering (Major Study Code: 15397)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)			
	Year	Sem	Year	Sem	Year	Sem		
Engineering Technology Studies Path*								
ENG8101 Technological Impact and its Management [^]	2	1		1				
ENG8104 Asset Management in an Engineering Environment [^]	2	1		1				
ENG8103 Management of Technological Risk [^]	2	2		2				
ENG8205 Technology Management Practice [^]	2	2		2				
MEC3303 System Design	2	2		2			Pre-requisite: MEC2301 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or GCNS or GDNS or MEPR or MENS	
MEC3403 Dynamics II	2	2		2			Pre-requisite: (MEC2401 and MAT2500) or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS	
Project and Dissertation Path*								
ENG8002 Project and Dissertation**	2	1,2		1,2			Pre-requisite: ENG8001 Four units	
MEC3303 System Design	2	2		2			Pre-requisite: MEC2301 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or GCNS or GDNS or MEPR or MENS	
MEC3403 Dynamics II	2	2		2			Pre-requisite: (MEC2401 and MAT2500) or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS	
Elective##								
ELE2103 Linear Systems and Control		2		2				
MEC3203 Materials Technology		1		1			Pre-requisite: MEC1201 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or GCNS or GDNS or MEPR or MENS	
MEC4104 Energy Technology		1		1			Pre-requisite: (MEC2101 and MEC3102) or MEC2106 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MENS	

Footnotes

* Follow the Standard Enrolment Pattern and adopt either the Engineering Technology Studies Path or the Project and Dissertation Path. The Project and Dissertation Path is normally available only to students achieving a GPA of 5.0 or higher in their first six courses.

^ An approved Level 8 course may be substituted for this course.

** Permission to enrol in this course must be obtained from the Program Coordinator.

Approval may be given to substitute one or more Electives for Level 4 and below courses in the Standard Enrolment Pattern. Students need to be aware however that they MUST SEEK PERMISSION to substitute Standard Enrolment Pattern courses with the listed Electives PRIOR to enrolling in them, or they may not be counted towards their degree.

Mechatronic Engineering Major recommended enrolment pattern

Major study: Mechatronic Engineering (Major Study Code: 12696)							
Course	Year of program and semester in which course is normally studied					Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)		
	Year	Sem	Year	Sem	Year		
STANDARD ENROLMENT PATTERN*							
ELE2303 Embedded Systems Design	1	1		1			
ELE3105 Computer Controlled Systems	1	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	
ELE3305 Computer Systems and Communications Protocols	1	1		1			
ELE3506 Electronic Measurement	1	2		2		Pre-requisite: (ELE1502 and (ELE2101 or ELE2103) and (ELE2503 or ELE2504)) or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or MENS	
ENG8001 Engineering and Surveying Research Methodology	1	1,2				1,2	
MEC3204 Production Engineering	1	2		2			
Engineering Technology Studies Path*							
ENG8101 Technological Impact and its Management [^]	2	1		1			
ENG8104 Asset Management in an Engineering Environment [^]	2	1		1			
ENG8103 Management of Technological Risk [^]	2	2		2			
ENG8205 Technology Management Practice [^]	2	2		2			
MEC3303 System Design	2	2		2		Pre-requisite: MEC2301 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or GCNS or GDNS or MEPR or MENS	
MEC4406 Robotics and Machine Vision	2	2		2		Pre-requisite: MEC2401 or ELE2103	
Project and Dissertation Path*							
ENG8002 Project and Dissertation ^{**}	2	1,2		1,2		Pre-requisite: ENG8001	Four units
MEC3303 System Design	2	2		2		Pre-requisite: MEC2301 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or GCNS or GDNS or MEPR or MENS	

Major study: Mechatronic Engineering (Major Study Code: 12696)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)			
	Year	Sem	Year	Sem	Year	Sem		
MEC4406 Robotics and Machine Vision	2	2		2			Pre-requisite: MEC2401 or ELE2103	
Elective##								
ELE4108 Adaptive Systems							Not Offered 2012	
MEC3203 Materials Technology		1		1			Pre-requisite: MEC1201 or Students must be enrolled in one of the following Program s: GCEN or GDET or METC or GCNS or GDNS or MEPR or MENS	
MEC3302 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 GDET or METC or MEPR or GCNS or GDNS or MENS	

Footnotes

- * Follow the Standard Enrolment Pattern and adopt either the Engineering Technology Studies Path or the Project and Dissertation Path. The Project and Dissertation Path is normally available only to students achieving a GPA of 5.0 or higher in their first six courses.
- ^ An approved Level 8 course may be substituted for this course.
- ** Permission to enrol in this course must be obtained from the Program Coordinator.
- ## Approval may be given to substitute one or more Electives for Level 4 and below courses in the Standard Enrolment Pattern. Students need to be aware however that they MUST SEEK PERMISSION to substitute Standard Enrolment Pattern courses with the listed Electives PRIOR to enrolling in them, or they may not be counted towards their degree.

Power Systems Engineering Major recommended enrolment pattern

Major study: Power Systems Engineering (Major Study Code: 15642)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)			
	Year	Sem	Year	Sem	Year	Sem		
STANDARD ENROLMENT PATTERN*								
ELE3803 Electrical Plant+	1	1		1			Pre-requisite: ELE1801 or Students must be enrolled in one of the following Program s: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS	
ENG3003 Engineering Management	1	1		1				
ELE3807 Power Systems Analysis	1	1		1				
ELE3805 Power Electronics Principles and Applications	1	2		2			Pre-requisite: (ELE1502 and ELE1801) or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS	
ENG4004 Engineering Project and Operations Management	1	2		2,3				
ENG8001 Engineering and Surveying Research Methodology	1	1,2				1,2		

Major study: Power Systems Engineering (Major Study Code: 15642)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)			
	Year	Sem	Year	Sem	Year	Sem		
Engineering Technology Studies Path*								
ENG8101 Technological Impact and its Management[^]	2	1		1				
ENG8104 Asset Management in an Engineering Environment[^]	2	1		1				
MEC3203 Materials Technology+	2	1		1			Pre-requisite: MEC1201 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or GCNS or GDNS or MEPR or MENS	
ENG8103 Management of Technological Risk[^]	2	2		2				
ENG8205 Technology Management Practice[^]	2	2		2				
ELE3506 Electronic Measurement	2	2		2			Pre-requisite: (ELE1502 and (ELE2101 or ELE2103) and (ELE2503 or ELE2504)) or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or MENS	
Project and Dissertation Path*								
ENG8002 Project and Dissertation**	2	1,2		1,2			Pre-requisite: ENG8001 Four units	
MEC3203 Materials Technology+	2	1		1			Pre-requisite: MEC1201 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or GCNS or GDNS or MEPR or MENS	
ELE3506 Electronic Measurement	2	2		2			Pre-requisite: (ELE1502 and (ELE2101 or ELE2103) and (ELE2503 or ELE2504)) or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or MENS	
Elective###								
ELE2704 Electricity Supply Systems		2		2				
ENV4204 Environmental Technology		1		1			Pre-requisite: MAT1100 or MAT1500 or Students must be enrolled in one of the following programs: GCEN or GDET or METC or MENS or GCNS or GDNS or MSST	
ECO8010 Corporations and Sustainable Development				1		1		
MGT8015 Corporate Occupational Health and Safety				1		1		

Footnotes

* Follow the Standard Enrolment Pattern and adopt either the Engineering Technology Studies Path or the Project and Dissertation Path. The Project and Dissertation Path is normally available only to students achieving a GPA of 5.0 or higher in their first six courses.

- + One of the Electives listed may be substituted for this course in the Standard Enrolment Pattern.
- ^ An approved Level 8 course may be substituted for this course.
- ** Permission to enrol in this course must be obtained from the Program Coordinator.
- ## Approval may be given to substitute one or more Electives for Level 4 and below courses in the Standard Enrolment Pattern. Students need to be aware however that they MUST SEEK PERMISSION to substitute Standard Enrolment Pattern courses with the listed Electives PRIOR to enrolling in them, or they may not be counted towards their degree.

Software Engineering Major recommended enrolment pattern

Major study: Software Engineering (Major Study Code: 15643)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)			
	Year	Sem	Year	Sem	Year	Sem		
STANDARD ENROLMENT PATTERN*								
ELE3401 Software Engineering Design Principles	1	1		1				
ELE2303 Embedded Systems Design	1	1		1				
CSC2402 Object-Oriented Programming in C++##	1	1		1,3			Pre-requisite: CSC1401 or USQIT16 or Students must be enrolled in one of the following Programs: GDTI or GCSC or GDGS or GCEN or GDET or METC or MCOT or MCTE or MCOP or MPIT or MSBN or MSMS	
CSC2408 Software Development Tools	1	2		2,3				
ELE3307 Real Time Systems	1	2		2			Pre-requisite: ELE1301 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MENS	
ENG8001 Engineering and Surveying Research Methodology	1	1,2				1,2		
Engineering Technology Studies Path*								
ENG8101 Technological Impact and its Management^	2	1		1				
ENG8104 Asset Management in an Engineering Environment^	2	1		1				
CSC3403 Comparative Programming Languages+	2	1		1			Pre-requisite: CSC2402 or USQIT16 or Students must be enrolled in one of the following Programs: GDTI or GCSC or GDGS or GCEN or GDET or METC or MCOT or MCTE or MCOP or MPIT or MSBN or MSMS	
ENG8103 Management of Technological Risk^	2	2		2				
ENG8205 Technology Management Practice^	2	2		2				
ELE4402 Software Engineering Project Management	2			2				
Project and Dissertation Path*								
ENG8002 Project and Dissertation**	2	1,2		1,2			Pre-requisite: ENG8001	Four units
ELE4402 Software Engineering Project Management				2				

Major study: Software Engineering (Major Study Code: 15643)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)			
	Year	Sem	Year	Sem	Year	Sem		
CSC3403 Comparative Programming Languages+	2	1		1			Pre-requisite: CSC2402 or USQIT16 or Students must be enrolled in one of the following Programs: GDTI or GCSC or GDGS or GCEN or GDET or METC or MCOT or MCTE or MCOP or MPIT or MSBN or MSMS	
Elective###								
CSC2407 Introduction to Software Engineering		2		2			Pre-requisite: CSC1401 or USQIT16 or Students must be enrolled in one of the following Programs: GDTI or GCSC or GDGS or GCEN or GDET or METC or MCOT or MCTE or MCOP or MPIT or MSBN or MSMS	
CSC3412 System and Security Administration		2		2				
CSC8415 Computer Network Programming		1		1			Pre-requisite - Students must be enrolled in one of the following Programs: MCOP or MPIT or MCOT or MCTE or MSBI or MSSC or MENC or MEPR or MENS or METC or MSST.	
CSC8416 Advanced Programming in Java		1		1,3			Pre-requisite - Students must be enrolled in one of the following Programs: MCOP or MPIT or MCOT or MCTE or MSBI or MSSC or MENC or MEPR or MENS or METC or MSST.	

Footnotes

- * Follow the Standard Enrolment Pattern and adopt either the Engineering Technology Studies Path or the Project and Dissertation Path. The Project and Dissertation Path is normally available only to students achieving a GPA of 5.0 or higher in their first six courses.
- + One of the Electives listed may be substituted for this course in the Standard Enrolment Pattern.
- # Students who are already familiar with C++ are advised to choose [CSC8416](#) in lieu of [CSC2402](#).
- ^ An approved Level 8 course may be substituted for this course.
- ** Permission to enrol in this course must be obtained from the Program Coordinator.
- ## Approval may be given to substitute one or more Electives for Level 4 and below courses in the Standard Enrolment Pattern. Students need to be aware however that they MUST SEEK PERMISSION to substitute Standard Enrolment Pattern courses with the listed Electives PRIOR to enrolling in them, or they may not be counted towards their degree.

Structural Engineering Major recommended enrolment pattern

Major study: Structural Engineering (Major Study Code: 15188)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)			
	Year	Sem	Year	Sem	Year	Sem		
STANDARD ENROLMENT PATTERN*								
MEC2402 Stress Analysis	1	1		1			Pre-requisite: CIV1501 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC	

Major study: Structural Engineering (Major Study Code: 15188)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)			
	Year	Sem	Year	Sem	Year	Sem		
							or MEPR or GCNS or GDNS or MENS	
CIV3505 Structural Analysis	1	1		1			Pre-requisite: MEC2402 and MAT1502 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS	
CIV3506 Concrete Structures	1	1		1			Pre-requisite: CIV2503 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS	
MAT2500 Engineering Mathematics 3	1	2		2			Pre-requisite: MAT1102 or MAT1502 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MENS	
CIV3403 Geotechnical Engineering	1	2		2			Pre-requisite: CIV2401 or CIV2403 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS	
ENG8001 Engineering and Surveying Research Methodology	1	1,2				1,2		
Engineering Technology Studies Path*								
ENG8101 Technological Impact and its Management[^]	2	1		1				
ENG8104 Asset Management in an Engineering Environment[^]	2	1		1				
CIV4508 Structural Design II	2	1		1			Pre-requisite: CIV3505 and CIV3506 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS	
ENG8103 Management of Technological Risk[^]	2	2		2				
ENG8205 Technology Management Practice[^]	2	2		2				
CIV3603 Construction Methods				2				
Project and Dissertation Path*								
ENG8002 Project and Dissertation⁺	2	1,2		1,2			Pre-requisite: ENG8001 Four units	
CIV4508 Structural Design II	2	1		1			Pre-requisite: CIV3505 and CIV3506 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS	
CIV3603 Construction Methods				2				

Major study: Structural Engineering (Major Study Code: 15188)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)			
	Year	Sem	Year	Sem	Year	Sem		
Elective##								
ENG3103 Engineering Problem Solving Computations		2		2			Pre-requisite: (ENG2102 and MAT1502) or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS	
ENG4104 Engineering Problem Solving Simulations		2		2			Pre-requisite: ENG3103 or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or GCNS or GDNS or MENS	
ENG3003 Engineering Management		1		1				
ENG4004 Engineering Project and Operations Management		2		2,3				
MEC2401 Dynamics I		2		2			Pre-requisite: (MAT1502 and CIV1501) or Students must be enrolled in one of the following Programs: GCEN or GDET or METC or MEPR or MENS	

Footnotes

- * Follow the Standard Enrolment Pattern and adopt either the Engineering Technology Studies Path or the Project and Dissertation Path. The Project and Dissertation Path is normally available only to students achieving a GPA of 5.0 or higher in their first six courses.
- ^ An approved Level 8 course may be substituted for this course.
- + Permission to enrol in this course must be obtained from the Program Coordinator.
- ## Approval may be given to substitute one or more Electives for Level 4 and below courses in the Standard Enrolment Pattern. Students need to be aware however that they MUST SEEK PERMISSION to substitute Standard Enrolment Pattern courses with the listed Electives PRIOR to enrolling in them, or they may not be counted towards their degree.

Technology Management Major recommended enrolment pattern

Major study: Technology Management (Major Study Code: 15828)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)			
	Year	Sem	Year	Sem	Year	Sem		
STANDARD ENROLMENT PATTERN*								
ENG8001 Engineering and Surveying Research Methodology	1	1,2				1,2		
ENG8101 Technological Impact and its Management	1	1		1				
ENG8102 Towards Sustainable Development				2				
ENG8103 Management of Technological Risk	1	2		2				
ENG8104 Asset Management in an Engineering Environment	1	1		1				
At least two of the following:								
ENG8011 Assessment of Future Specialist Technology++	1			1				

Major study: Technology Management (Major Study Code: 15828)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)			
	Year	Sem	Year	Sem	Year	Sem		
ENG8205 Technology Management Practice	1	2		2				
ENG8207 Technological Innovation and Development	1			2				
Engineering Technology Studies Path*								
Elective^	2	1		2				
Elective^	2	1		1				
Elective^	2	2		2				
Elective^	2	2		2				
Elective^	2	2		2				
Project and Dissertation Path*								
ENG8002 Project and Dissertation#	2	1,2		1,2			Pre-requisite: ENG8001 Four units	
Elective^	2	2		2				

Footnotes

- * Follow the Standard Enrolment Pattern and adopt either the Engineering Technology Studies Path or the Project and Dissertation Path. The Project and Dissertation Path is normally available only to students achieving a GPA of 5.0 or higher in their first six courses.
- ++ On-campus students should take [CIS8100 Digital Enterprise](#) (ONC, 1).
- ^ Electives will be approved by the Program Coordinator and will normally be Engineering, Science or Technology courses not lower than Level 3.
- # Permission to enrol in this course must be obtained from the Program Coordinator.

Transdisciplinary Engineering Major recommended enrolment pattern

Major study: Transdisciplinary Engineering (Major Study Code: 15644)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)			
	Year	Sem	Year	Sem	Year	Sem		
STANDARD ENROLMENT PATTERN*								
Elective+	1	1		1				
Elective+	1	1		1				
Elective+	1	1		1				
Elective+	1	2		2				
Elective+	1	2		2				
ENG8001 Engineering and Surveying Research Methodology	1	1,2				1,2		
Engineering Technology Studies Path*								
ENG8101 Technological Impact and its Management^	2	1		1				
ENG8104 Asset Management in an Engineering Environment^	2	1		1				
Elective+	2	1		1				
ENG8103 Management of Technological Risk^	2	2		2				
ENG8205 Technology Management Practice^	2	2		2				
Elective+	2	2		2				

Major study: Transdisciplinary Engineering (Major Study Code: 15644)								
Course	Year of program and semester in which course is normally studied						Enrolment requirements	Comments
	On-campus (ONC)		External (EXT)		Online (WEB)			
	Year	Sem	Year	Sem	Year	Sem		
Project and Dissertation Path*								
ENG8002 Project and Dissertation#	2	1,2		1,2			Pre-requisite: ENG8001	Four units
Elective+	2	2		2				
Elective+	2	2		2				

Footnotes

- * Follow the Standard Enrolment Pattern and adopt either the Engineering Technology Studies Path or the Project and Dissertation Path. The Project and Dissertation Path is normally available only to students achieving a GPA of 5.0 or higher in their first six courses.
- + Electives will be approved by the Program Coordinator and will normally be Engineering, Science or Technology courses not lower than Level 3.
- ^ An approved Level 8 course may be substituted for this course.
- # Permission to enrol in this course must be obtained from the Program Coordinator.