

Graduate Certificate in Spatial Science Technology (GCST) - GradCertSpScTech

CRICOS code (International applicants): 066078K

	On-campus	Distance education
Semester intake:	Semester 1 (February) Semester 2 (July)	Semester 1 (February) Semester 2 (July)
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:	1 semester full-time or 2 semesters part-time or by distance learning	
Program articulation:	To: Graduate Diploma of Spatial Science Technology ; Master of Spatial Science Technology	

Contact us

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

Program focus

This four unit program is intended to enable students who already hold an undergraduate qualification in another field to develop or extend their knowledge in either surveying or geographic information systems.

Professional accreditation

The [Graduate Certificate in Spatial Science Technology](#) is not accredited by any professional bodies other than the University of Southern Queensland.

Program objectives

Students who successfully complete the Graduate Certificate in Spatial Science Technology specialising in Geographic Information Systems (GIS) will be able to demonstrate:

- an understanding of the concept of spatial and geographic information systems
- familiarity with the analysis and management of spatial information
- an awareness of potential applications and limitations of geographic information systems
- an understanding of the capture, conversion and output of geographic information
- a professional standard of communication.

Students who successfully complete the Graduate Certificate in Spatial Science Technology specialising in Surveying will be able to demonstrate:

- a capacity for the analysis, evaluation and synthesis of surveying related systems
- enhanced technical skills in surveying technology

- an awareness of the current surveying practices and methods
- a professional standard of communication.

Admission requirements

To be eligible for admission to the program candidates must possess a three or four-year undergraduate degree, or equivalent, in an approved discipline. Overseas candidates must possess a degree in an approved discipline 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 International applicants must also comply with the University requirements for competency in written and spoken English.

How to apply

Domestic students

[Application for postgraduate programs](#) may be made directly to USQ.

International students

This program is offered to international students. An international student is a person who is not an Australian or New Zealand citizen and not an Australian permanent resident. Please refer to [USQ International](#) for information about entry requirements, visa arrangements and how to apply.

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 Certificate in Spatial Science Technology consists of four courses. The maximum time for completion is one year for a full-time student and two years for a part-time student.

Students may commence their studies at the beginning of either Semester 1 or Semester 2. Students may select one of the two majors in the program, either Geographic Information Systems or Surveying. The courses offered in each major are shown in the following tables.

Students wishing to complete the Graduate Certificate in Spatial Science Technology should select four courses from the appropriate table including the core course if specified in the major. Students who may go on to

complete the [Master of Spatial Science Technology](#) program should study the recommended enrolment patterns for that program to ensure that they will satisfy the core course requirements.

Required time limits

Full-time students have a maximum of one year to complete this program. Part-time students have a maximum of two 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.

Major studies objectives

The major provides students with knowledge and skills in a specific discipline. The two major study areas in the Graduate Certificate in Spatial Science Technology are:

- Geographic Information Systems
- Surveying

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

Graduates from this program may articulate with full credit into the [Graduate Diploma of Spatial Science Technology](#) and [Master of Spatial Science Technology](#).

Exemptions

For the Graduate Certificate in Spatial Science Technology no exemptions will be permitted. Candidates who have completed the same or similar courses at USQ or similar courses at another institution should, with the approval of the Program Coordinator, apply to vary their enrolment pattern on the basis of prior study.

Geographic Information Systems Major recommended enrolment pattern

Major study: Geographic Information Systems (Major Study Code: 12613)							
Course	Year of program and semester in which course is normally studied						Enrolment requirements
	On-campus (ONC)		External (EXT)		Online (WEB)		
	Year	Sem	Year	Sem	Year	Sem	
Schedule A: Students must complete the following core courses							
GIS1402 Geographic Information Systems		1		1			
GIS3404 Geographic Data Visualisation		1		1			
Schedule B: Select the two remaining courses from the following list							
CSC1401 Foundation Programming		1,2		1,2			
ENV2201 Land Studies		1		1			
SVY3200 Land Administration		2		2			
GIS3405 Spatial Analysis and Modelling		2		2			
GIS3406 Remote Sensing and Image Processing		2		2			
GIS4407 Web Based Geographic Information System		2		2			Pre-requisite: GIS1402 or Students must be enrolled in one of the following Programs: GCGS or GDST or MSST or GCNS or GCST or GDNS or MENS
SVY1110 Introduction to Global Positioning System		2		2			
SVY3202 Photogrammetry and Remote Sensing		1		1			
SVY4203 Urban and Regional Planning		1		1			

Major study: Geographic Information Systems (Major Study Code: 12613)							
Course	Year of program and semester in which course is normally studied						Enrolment requirements
	On-campus (ONC)		External (EXT)		Online (WEB)		
	Year	Sem	Year	Sem	Year	Sem	
SVY4309 Practice Management for Spatial Scientists		1		1			

Notes:

The Head of Discipline must approve the choice of courses.

Surveying Major recommended enrolment pattern

Major study: Surveying (Major Study Code: 12614)							
Course	Year of program and semester in which course is normally studied						Enrolment requirements
	On-campus (ONC)		External (EXT)		Online (WEB)		
	Year	Sem	Year	Sem	Year	Sem	

Schedule A: Students must complete the following core courses

SVY1104 Survey Computations A		2		2			Pre-requisite: SVY1102 or SVY1500 or Students must be enrolled in one of the following Programs: GCST or GDST
SVY2106 Geodetic Surveying A		1		1			Pre-requisite: SVY1110 or Students must be enrolled in one of the following Programs: GCNS or GCST or GDNS or GDST or MSST or MENS

Schedule B: Select the two remaining courses from the following list

SVY3200 Land Administration		2		2			
SVY1110 Introduction to Global Positioning System		2		2			
SVY2105 Survey Computations B		2		2			Pre-requisite: SVY2106 or Students must be enrolled in one of the following Programs: GCNS or GCST or GDNS or GDST or MSST or MENS
SVY2301 Automated Surveying Systems		1		1			Pre-requisite: SVY1104 or Students must be enrolled in one of the following Programs: GCST or GDST
SVY2302 Mine Surveying		1		1			Pre-requisite: SVY1104 or Students must be enrolled in one of the following Programs: GCNS or GCST or GDNS or GDGS
SVY2303 Construction Surveying		2		2			Pre-requisite: SVY1104
SVY3304 Cadastral Surveying		2		2			Pre-requisite: (SVY1102 and SVY1104) or Students must be enrolled in one of the following Programs: GCNS or GCST or GDNS or GDST or MSST or MENS
SVY4203 Urban and Regional Planning		1		1			
SVY3107 Geodetic Surveying B		2		2			Pre-requisite: SVY1110 or Students must be enrolled in one of the following Programs: GCNS or GCST or GDNS or GDST or MSST or MENS
SVY3201 Sustainable Urban Design and Development		2		2			
SVY3202 Photogrammetry and Remote Sensing		1		1			
SVY4304 Land and Cadastral Law		2		2			
SVY4309 Practice Management for Spatial Scientists		1		1			

Notes:

The Head of Discipline must approve the choice of courses.

Students intending to seek registration with the Surveyors Board of Queensland should contact the Surveyors Board of Queensland to confirm enrolment in courses that will satisfy Surveyors Board of Queensland requirements for registration as a surveyor.