Program focus
This program is a research degree that produces graduates who are skilled in spatial sciences investigation, evaluation and synthesis. It allows students to enhance and extend their knowledge of a particular surveying or geographic information systems discipline area.

Program objectives
The program is a postgraduate level research program in the fields of geodesy, surveying, photogrammetry, land management, geographic information systems or spatial science education.

The program is intended to allow students to enhance and extend their knowledge of a particular surveying or geographic information systems discipline area. The aim of the degree is to produce graduates who are skilled in spatial science investigation, evaluation and synthesis. Students who successfully complete the Master of Spatial Science Research should be able to demonstrate:

- strong communication skills
- a broad knowledge of the general discipline area of spatial science at an advanced level
- an extensive and detailed knowledge of one significant aspect of spatial science at a level that allows for the proposal and evaluation of innovative solutions to complex technical problems in that area
- an exhaustive knowledge of, and ability to access, sources of information about spatial science
- an ability to utilise sound research methodology and experimental design in an investigative study
- an awareness of the practical application(s), and the implications for professionals, of the research work that has been undertaken
- a high standard of written and verbal English language communication skill.
Admission requirements

Entry to this program will be restricted to students who have demonstrated a high level of ability at the undergraduate level, or who, in pursuit of their occupation or by other means, have demonstrated their ability to successfully undertake studies at this level. Specifically, candidates shall normally be considered for admission to a quota place in the Master of Spatial Science if they either:

- hold a graduate diploma or four-year bachelor degree in surveying, geomatics, science, urban and regional planning or engineering awarded by Australian university, or an equivalent qualification awarded by an overseas institution
- have demonstrated a high level of academic performance in these studies

or

- hold a three-year bachelors degree in science, geographic information systems or related field of study awarded by an Australian university, or an equivalent qualification awarded by an overseas institution
- have demonstrated a high level of academic performance in their undergraduate studies
- have completed a qualifying program of spatial science studies approved by the Dean of the Faculty of Engineering and Surveying achieving a GPA of 5.0 or more in those studies

or

- have worked as a professional in the field of spatial science for a period of not less than five years and can provide documentary evidence, such as technical publications, that satisfies the Dean of the Faculty that advanced knowledge has been acquired
- successfully complete an interview conducted by the Dean of the Faculty of Engineering and Surveying or his/her nominee to assess the candidate's chance of success in the program.

International candidates for admission into this program must meet the University's English language proficiency requirements for postgraduate students. Please refer to Section 2.2.3 of the Admissions Policy.

How to apply

Applications for Research Master and Doctorate programs should be made directly to USQ.

Program fees

Domestic full fee paying place

Domestic full fee paying places are funded entirely through the full fees paid by the student. Full fees vary depending on the courses that are taken. You 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. You are able to calculate the fees for a particular course via the Course Fee Finder.

Research training scheme (RTS)

All Australian citizens, Australian permanent residents and New Zealand citizens commencing a higher degree research program will have their tuition fees paid for by the Australian Federal Government under the Research Training Scheme (RTS). The RTS place entitles a student to a maximum period of four years exemption full time or 8 years part time on tuition fees for a Doctorate program and 2 years exemption full time or 4 years part time for Masters by Research programs. As part of the enrolment process students are required to submit
proof of citizenship and transcripts of all previous academic study. It is with this documentation that USQ can determine the eligibility for RTS. Students who are eligible for RTS are:

- those who have not consumed any RTS previously
- those who have already utilised RTS and have successfully completed a research program. Once a student completes a higher degree research program full entitlements of RTS are restored.

### Program structure

The Master of Spatial Science involves a minimum of either three terms of full-time research or six terms of part-time research at the conclusion of which a candidate prepares and submits for examination, a thesis in research or design. Research topics are selected from areas of geodesy, surveying, photogrammetry, land management, geographic information systems (GIS) or spatial science education.

### Program completion requirements

The Master of Spatial Science is comprised of 12 units of study, consisting of one unit of coursework and an 11 unit research project and dissertation.

Students will be required to complete the course ENG8001 Masters Dissertation A to satisfy the coursework component of the program.

For administrative purposes students will enrol in a selection of the courses listed below in order to complete the 11 unit research dissertation. The 11 units of research will be composed of individual courses ranging in size from one to four units. This provides students with the opportunity to undertake the program in either part-time or full-time mode. Full-time students normally enrol in four units for each term in which they engage in research activities. Part-time students normally enrol in two units for each term in which they engage in research activities.

Programs may be varied to suit the needs of individual students. Enrolment in the above courses is used to assess eligibility for scholarships and awards, and to levy program fees where appropriate, so it is important to consult with the Associate Dean (Research) when finalising enrolment for this program.

All of the courses listed below are ungraded courses, i.e. successful completion will be indicated by a Satisfactory Progress grade.

Some candidates may be required to complete additional coursework, up to a maximum of four single-unit courses, in areas relevant to their proposed field of study. The coursework requirements for each student will be determined by the Associate Dean (Research) in consultation with the Head of Discipline, the student and the project supervisors and approved by the Dean of the Faculty of Engineering and Surveying. Candidates would be expected to demonstrate a high level of achievement in any additional coursework courses.

### Required time limits

Full-time students have a maximum of three years to complete this program. Part-time students have a maximum of six 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

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. External students should be able to access a computer with the following minimum standards as advised by the University. 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. A notebook/laptop may be required for some courses.
Other program requirements

Students enrolling in this program by external mode will need to demonstrate that the educational objectives normally achieved by attendance on-campus are met by other means. This will normally require that:

- there is acceptable local day to day supervision
- the research project is related to their day to day work
- the student has access to adequate local facilities such as a library, laboratory and/or the technical support required to complete the research project
- communication with USQ staff is readily available via telephone, facsimile and/or email
- the USQ supervisor is able to visit the remote site as required
- the student is able to attend the USQ campus for supervision and/or seminars as directed.

Recommended enrolment pattern

<table>
<thead>
<tr>
<th>Course</th>
<th>Year of program and semester in which course is normally studied</th>
<th>Enrolment requirements</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td><strong>Coursework Course</strong></td>
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<tr>
<td>ENG8001 Masters Dissertation A</td>
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<td>1,2</td>
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<td><strong>Research Courses</strong></td>
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<tr>
<td>ENG9011 Independent Research in Engineering and Surveying 1</td>
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<tr>
<td>ENG9012 Independent Research in Engineering and Surveying 2</td>
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<td>One unit</td>
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<tr>
<td>ENG9021 Independent Research in Engineering and Surveying 1</td>
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<td></td>
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<tr>
<td>ENG9041 Independent Research in Engineering and Surveying 1</td>
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<td>Four units</td>
<td></td>
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<tr>
<td>ENG9022 Independent Research in Engineering and Surveying 2</td>
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<td>ENG9023 Independent Research in Engineering and Surveying 3</td>
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</tr>
<tr>
<td>ENG9043 Independent Research in Engineering and Surveying 3</td>
<td>3</td>
<td>Four units</td>
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Notes:

Students must complete the course ENG8001 Masters Dissertation A and a combination for a total of 11 credit point units of the Independent Research in Engineering and Surveying courses. ENG8001 must be completed satisfactorily during the first term of study.

Programs may be varied to suit the needs of individual students. Enrolment in the above courses is used to assess eligibility for scholarships and awards, and to levy program fees where appropriate, so it is important to consult with the Associate Dean (Research) when finalising enrolment for this program.

All of the courses listed above (except ENG8001) are ungraded courses, i.e. successful completion will be indicated by a Satisfactory Progress grade.

Some candidates may be required to complete additional coursework, up to a maximum of four single-unit courses, in areas relevant to their proposed field of study. The coursework requirements for each student will be determined by the Associate Dean (Research) in consultation with the Head of Discipline, the student and the project supervisors and approved by the Dean of the Faculty of Engineering and Surveying. Candidates would be expected to demonstrate a high level of achievement in any additional coursework courses.