Commencing: Semester 1
Location: St Lucia
Delivery Mode: Internal

postgraduate coursework programs in geographic information science

The analysis of geographic information and remotely sensed data informs decision making across commercial, agricultural, government and community sectors.

As a Geographic Information Science (GIS) specialist, you will use remote sensing and a range of other technologies to collect, store, analyse, visualise and distribute geographic or location enabled data to study both natural processes and the interaction of humans with their environment.

There is a significant increase in the demand for graduates with advanced analytic, computing, technical and research skills to harness remotely sensed data to better understand and manage the earth’s environments and resources.

The University of Queensland’s postgraduate programs will give you high-quality technical and research skills in core areas of GIS, including remote sensing and spatial analysis.

You will graduate with a thorough understanding of basic and advanced computing skills in spatial data collection, analysis and visualisation techniques, and practical experience in the implementation and management of GIS projects.

You will also develop skills in applying GIS and remote sensing technologies, resource identification through remote sensing image analysis, expert systems and decision support systems, and GIS research.

UQ graduates are job-ready, with skills that extend across a number of disciplines and professions including ecology, mineral and oil exploration, health, urban and regional planning, mathematics, cartography, surveying, geography and environmental science.

UQ Advantage
You will have access to advanced equipment, technology and labs, and learn from leading researchers in the field of GIS. Master of Geographic Information Science graduates may be eligible for membership of the Surveying and Spatial Sciences Institute.

www.uq.edu.au/study
Career opportunities
Skills in GIS can be applied to a range of industries and discipline areas including:
- Traditional disciplines for planning, built environment, environment and resource management as well as emerging areas in IT
- Local, state and federal governments to maintain land information for their own purposes and for public uses
- Agencies such as the military, police, emergency services, and utilities to increase efficiency in the provision of their services
- Private industry and consultancies who provide services to the growing spatial information industry
- Companies involved in spatial data collection and remote sensing
- The IT industry to develop geographical database and specialised geospatial software
- Scientific and research institutions who use geographical information and spatial data analysis for discovery.

Postgraduate degree options
Graduate Certificate in Geographic Information Science
- 8 units (1 semester full-time or part-time equivalent)
- Also available online for external students

Graduate Diploma in Geographic Information Science
- 16 units (2 semesters full-time or part-time equivalent)

Master of Geographic Information Science (#24)
- 24 units (3 semesters full-time or part-time equivalent)

Master of Geographic Information Science (#32)
- 32 units (4 semesters full-time or part-time equivalent)

Program structure
The courses in each of the postgraduate programs are structured in four parts:
- Part A is comprised of foundational level courses that will prepare students without a GIS background for the exciting challenges GIS courses will present
- Part B is comprised of courses in remote spatial sensing of environment and geospatial planning
- Part C courses allow students to specialise in fields of study including ecology, sustainability, information systems and planning
- Part D allows students to complete a spatial sciences thesis.

The programs allow you the flexibility to choose the courses that best meet your interests and needs for future careers.

The full course list, including detailed descriptions of each course, is available online at www.uq.edu.au/study

Sample course list
- Remote Sensing of Environment
- Advanced Remote Sensing of Environment
- Advanced Geographical Information Systems
- Geospatial Processing and Web Mapping
- Geographical Information Systems
- Tools for Environmental Assessment and Analysis
- Relational Database Systems

Entry requirements
Graduate Certificate in Geographic Information Science (also offered as online degree)
Bachelor degree in any field, with UQ or equivalent GPA of 4 or above on a 7 point scale; or 2 years of work experience in the same discipline.

Graduate Diploma in Geographic Information Science
Bachelor degree in any field or Graduate Certificate in Geographic Information Science, with UQ or equivalent GPA of 4 or above on a 7 point scale.

Master of Geographic Information Science (24 units)
Bachelor degree in science (mathematics, physics, computer science), environmental science, environmental management, geographical science, geology, surveying, geomatics, engineering, or an approved discipline. UQ or equivalent GPA of 4.5 or above on a 7 point scale.

Master of Geographic Information Science (32 units)
Bachelor degree in any field or a Graduate Certificate or Graduate Diploma in GIS, with UQ or equivalent GPA of 4.5 or above on a 7 point scale.

How to apply
Information about application procedures can be found at www.future-students.uq.edu.au/apply

Time of publication: Every effort has been made to ensure the accuracy of information in this document at the time of publication. The authoritative source of program and course information is the UQ Courses and Programs website at uq.edu.au/study. Where any conflict of information exists, the rules and associated course lists approved by the UQ Senate shall apply.

After completing a Master of Geographic Information Science at UQ, Ross Ma is now using spatial analysis and GIS techniques in efforts to improve the lives of locals in New Plymouth District Council in New Zealand. Ross develops and maintains spatial data and databases for council assets, provides analytical support directly to planning engineers, and regularly meets with clients to discuss their information requirements and concerns.

As an international student, Ross chose UQ because of its highly regarded reputation with employers in the GeoSpatial industry around the world. He especially appreciated the opportunities his UQ lecturers and professors gave him to be involved in research projects while studying. These projects improved his logical thinking and trouble-shooting skills, which have been essential in his career.

Ross Ma
Master of Geographic Information Science

Enquiries – International applicants
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Enquiries – Australian students
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