

Geospatial Data Science

Key attractions

- 1 Develop analytical skills for geospatial data
- 2 Designed to meet the surging global demand for geospatial data analysts
- 3 Gain in-depth understanding of technological advancements and hands-on professional experience with networking opportunities



Why Geospatial?

Geospatial Data Science develops methodologies for collecting, evaluating, modelling, and visualising location-based data. It is situated in geography and draws on computer and information sciences, remote sensing, cartography, and statistics.

As a student, you will gain skills in geospatial data, methods, programming, geospatial technologies, and communication. The degree can be pursued alongside an existing career. We offer flexible arrangements for part-time.

Join the growth of the geospatial industry in New Zealand and globally by training to be an employment-ready graduate who can handle modern geospatial analysis workflows for environmental, disaster, transportation, health, and other fields.

Learn cutting-edge science

UC is a top university for geospatial data science, and you will be taught by scientists who are at the forefront of advances in their field. Learn from internationally recognised experts in data science, geography, remote sensing, earth sciences, and more.



Qualification

There are four postgraduate pathways for Geospatial Data Science: a 60-point Certificate, a 120-point Diploma, a 180-point Master with a research project, and a 240-point Master of Science research thesis.

Entry requirements

- A bachelor's degree with a UC equivalent B average
- Introductory GIS or spatial data course
- Meet UC's English-language requirements
- Programme Director approval

AT A GLANCE

Start dates

Mid-February

Apply prior to the start date

Domestic1 month
International3 months

Features

Part-time options

Scholarship

For information on scholarships
www.canterbury.ac.nz/study/getting-started/scholarships

Purpose-built facilities

UC's laboratories, research centres, and field stations are internationally renowned. Utilise spaces in the Ernest Rutherford building that embrace the Ngāi Tahu cultural narrative of Whatukura in their design and ensure students have access to facilities at the forefront of contemporary science.

What will I learn?

Code	Course Title	Certificate 4 courses	Diploma 8 courses	Master 8 courses + project	Skills
GISC401	Foundations of Geospatial Data Science	Required	Required	Required	Spatial fundamentals in Python
GISC402	Geospatial Data Science Research			Required	Scientific inquiry, communication
GISC403	Geovisual Analytics		Required	Required	Design
GISC404	Spatial Analysis		Required	Required	Interpretation

GISC Electives:

- Environmental and Climate Data Analytics
- Remote Sensing for Earth Observation
- Advanced Methods in Geospatial Data Science
- Geospatial Data Science Internship
- Special Topics

Domain Electives:

- Data Science
- Statistics
- Others upon approval

Research:

- Geospatial Data Science Project (Master) or Thesis (Master of Science)

Career Prospects

This qualification equips professionals with advanced geospatial data science skills for government, industry and research.

Graduates go on to work as:

- Geospatial analysts
- Geospatial developers
- Data managers

Our graduates find employment at government agencies such as NIWA, ECAN, Stats NZ, city councils and industry in location intelligence and engineering.

What our students do



Student Profile

“Driven by a need for mapping long trail runs, I developed a fascination in how spatial data can be visualised, organised and used purposefully. This curiosity led me to return to study as an adult student to deepen my knowledge, purely for the fun of exploration and learning. By choosing a flexible part-time approach, I ensure a healthy balance between my personal life, physical health, and work.”

Stewie Stuart

Geotechnical Cartographer/
Endurance Athlete



Graduate Profile

“With a passion for addressing real-world challenges and utilizing data-driven insights, I specialise in analysing climate and natural hazard risks for businesses and communities as a geospatial analyst.”

Elvira Cheng

Urban Intelligence

Enrolment information

How to apply

Apply online through myUC:
<https://myuc.canterbury.ac.nz>

Who to contact

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