

# Professional Master in Geospatial Science and Technology (PMGST)

## Key facts about the programme

- 1 Degree offered since 2018
- 2 Designed to meet the high global demand for geospatial specialists
- 3 Uses disruptive technology to create real-world solutions



## What does the programme cover?

Geospatial science uses Geographic Information Systems (GIS) technologies to gain location-based insights into people's behaviour, earth system and environmental processes, and interactions between them for decision-making and actions. This degree can be taken alongside an existing professional career in order to "upskill" in this area.

The programme links relevant disciplines such as data science, computer science, and environmental science with spatial analysis, GIS Visualisation methods, and geocomputation. As a student, you will gain skills in GIS programming, research analysis and using and applying geospatial technology and communication.

You'll get the chance to use disruptive technologies to create real-world solutions for environmental and resource management, health, remote workforces, urban planning and earthquake recovery. This master's degree consists of four compulsory courses and at least four optional courses, plus an applied geospatial science and technology project.

### Compulsory courses:

- GI Science Research
- Spatial Analysis
- Spatial Data Science
- 60 points from a Geospatial Science and Technology Project

### Optional courses may include:

- Data Science
- Statistics
- Computer Programming
- Digital Business and Technology

## What are the entry requirements?

- A bachelor's degree with a UC equivalent B average
- 30 points of GIS courses at undergraduate level OR GISC422 (or an approved equivalent)
- Dean of Science approval
- Meet UC's English-language requirements

## AT A GLANCE

### Start Dates

February

### Months to Complete

Full-time ..... 12 months  
Part-time ..... 48 months

### Features

Geospatial Science and Technology Project ..... Yes

### Scholarship

For more information on scholarships go to [www.canterbury.ac.nz/get-started/scholarships/](http://www.canterbury.ac.nz/get-started/scholarships/)



### Student Profile

“GIS can be applied to a wide range of disciplines and topics, from health to geology to social sciences and more. No job is the same and each new job brings in a new challenge.”

#### Hamish Kingsbury

Consultant at Interpret Geospatial Solutions  
Bachelor of Science in Geography  
Postgraduate Diploma in Geographic Information Science



### Employer Profile

“By taking large volumes of complex information and displaying the patterns contained within that information in a manner that is memorable and easy to understand, we enable our clients to put the data they’ve collected to practical use.”

#### Kurt Janssen

CEO & Founder, Orbica Ltd

### What careers can this lead to?

This qualification is designed to equip current and future geospatial professionals with the advanced skills required for geospatial leadership roles in government, industry and research.

Graduates can go on to work as:

- GIS analysts
- GIS planners
- Local government analysts
- Geospatial technology developers

### Average starting salary

- 45–65k per year

### Average salary for senior specialists

- \$70,000 – \$120,000\*

### Enrolment information

#### How to apply

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

#### When to enrol

Applications need to be in five weeks before the programme starts.

#### Who to contact

Te Kura Aronukurangi | School of Earth and Environment  
T: +64 3 369 2026  
E: [earthandenvironment@canterbury.ac.nz](mailto:earthandenvironment@canterbury.ac.nz)  
[www.canterbury.ac.nz](http://www.canterbury.ac.nz)

### Learn from the best

UC is the top university in the country for the proportion of researchers that teach, so you will be taught by scientists who are at the forefront of advances in their field. Learn from internationally recognised experts in computing, data science, geography, mathematics and more. We collaborate with a range of specialist, internationally recognised organisations working in the data science area; including:

- Te Taiwhenua o te Hauora | GeoHealth Laboratory
- Toi Hangarau | Geospatial Research Institute



### Purpose-built facilities

UC’s laboratories, research centres, and field stations are internationally renowned. Added to this is the Ernest Rutherford building, which embraces the Ngāi Tahu cultural narrative of Whatukura in its design, and ensures students are at the forefront of contemporary science. Learning and research spaces in the centre have state-of-the-art equipment, high-tech computing systems and technology.

\*careers.govt.nz