



## Environment & Climate Short Course

*Techniques for measuring change and reconstructing past environments:  
freshwater — coastal change — Antarctica — climate system —*

Tues 15 to Thurs 17 April 2025 ~~28—30 August 2024~~

GNS Science National Isotope Centre, Lower

**New dates—  
now April 2025!**

## TOPICS

### Types of Archives

- Lakes & peats
- Marine sediments
- Carbonates
- Ice cores
- Landscapes
- Soil
- Groundwater

### Types of Proxies

- Pollen, chironomids, diatoms
- Foraminifera, radiolarians
- Stable isotopes of carbon, nitrogen & oxygen
- Biomarkers, ancient DNA

### Dating

#### Techniques

- $^{14}\text{C}$
- Tritium
- $^{10}\text{Be}$  and  $^{26}\text{Al}$  (surface exposure dating)
- Paleomagnetism
- Tephrochronology

### Laboratory Tours and

#### Demonstrations

$^{14}\text{C}$  sample preparation, stable isotope measurement, mass spectrometer measurement, sediment core recovery, soil stratigraphy, ice core analysis and archive, microfossil selection and

Registration and full programme:

[Click here to Register](#)

- early registration \$250 [1 Jun 24—28 Feb 25]
- standard registration \$300 [1 Mar—4 Apr 25]
- refunds available until 28 Feb 25
- limited to 30 participants, minimum participants 20

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