

CAREER PATHS



Earth Sciences graduate Gerard Bird is the environmental group manager and director of international environmental and engineering company Tonkin & Taylor Ltd.

Careers

Coastal engineer
Environmental consultant
Earth scientist
Engineering geologist
Environmental scientist
Exploration geologist
Groundwater scientist
Hazard manager
Hydrologist
Oceanographer
Petroleum geologist
Policy analyst
Soil scientist
Teacher
Technician
Volcanologist
Water laboratory technician
Water resource manager

Major employers

Rural-based companies eg Fonterra; energy companies eg Chevron; regional and district councils eg Waikato Regional Council; national and international consultancies eg Tonkin & Taylor Ltd and URS; Crown Research Institutes eg NIWA, AgResearch and Landcare Research; electricity companies eg Mighty River Power and Genesis Energy; and government departments eg Department of Conservation and Ministry of Civil Defence and Emergency Management.



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

BOLD IDEAS. SMART PEOPLE.
UNLIMITED AMBITION.
WHAKAARO PŪKENGA. HINENGARO KOI.
PITO MATA MUTUNGA KORE.

The University of Waikato has agreed to observe and be bound by the Code of Practice for the Pastoral Care of International Students. Copies of the Code are available from the New Zealand Ministry of Education website at www.minedu.govt.nz/international. For further information on studying at Waikato as an international student, please refer to: <http://www.waikato.ac.nz/students/international/>

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Earth Sciences

Take on the world



EARTH SCIENCES

Surrounded by diverse landscapes, Waikato University is uniquely placed to provide the ultimate learning environment for Earth Sciences study.

The Faculty of Science & Engineering is a leader in teaching and research related to the Earth's environment. Earth sciences cover volcanology, coastal and marine sciences, environmental sciences, soil science, hydrology, and sedimentary geology. Physical geography is also covered. Our graduates gain the knowledge and skills to pursue a wide range of careers.

Earth Sciences graduates are spread across New Zealand and around the globe, working in careers ranging from Earth resources exploration to environmental management and planning, and from scientific research to teaching.

The demand for experts in Earth sciences continues to grow as we look to better manage our soil, water, mineral, energy, coastal and marine resources, and understand our natural hazards, including volcanic eruptions, floods, landslides, tsunami and earthquakes.



Earth Sciences students pause for a photo during a third-year field trip over the Tongariro Alpine Crossing.

AREAS OF STUDY

Coastal marine science

Impressive field resources provide Waikato's Earth Sciences students with excellent opportunities to combine field experience with state-of-the-art computer modelling techniques. Issues around coastal development, coastal erosion, management of harbours, tsunami hazard, sea-level change and environmental disasters are important areas of study, research, and graduate employment.

Engineering geology

Technical abilities in the analyses of hill-slope stability, environmental monitoring, rock and soil strength, and engineering site assessment provide students with key skills that are sought after in geotechnical engineering, consulting and environmental management.

Hydrology and freshwater resources

Water-resource management, whether for flood prevention and control, drinking water, economic development, or environmental protection, is a rapidly growing issue for New Zealand and the planet. Students study groundwater, surface waters, and the atmosphere and climate, including greenhouse gas emissions.

Sedimentary geology

New Zealand is underpinned by sedimentary rocks. Sedimentary geology provides students with important skills in geological mapping, data acquisition and data interpretation that have application in the energy industry, as well as in groundwater management and geo-resource development.

Soil science

Managing our soils to ensure sustainable food production, environmental protection, and safe management of wastes is critical to the future of New Zealand and the world. Students study the distribution of soils in the landscape as well as learning how soil chemical, physical and biological properties can be managed to contribute to wider environmental health.

Volcanology

The Waikato region includes a diverse range of volcanoes and volcanic products. Study of these products is important to help us manage responses to potential volcanic hazards as well as to better understand the georesources and geological history of the Earth. Our volcanology students take advantage of the natural laboratory on our doorstep in the central North Island.

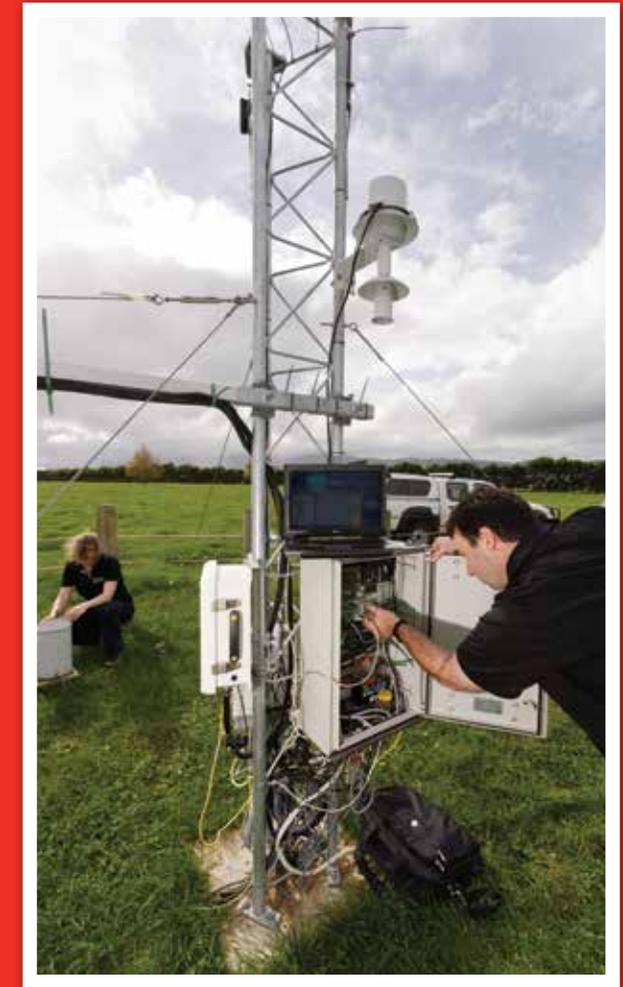
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Earth Sciences research fellow Dr Susanna Rutledge and technician Aaron Wall record the amount of carbon dioxide going in and out of soil at a Waikato dairy farm.