



Geology

Adventures for a lifetime

“Studying Geology at Otago was an adventure in every sense. Exploring the most rugged parts of New Zealand and learning how the Earth is constantly changing teaches you a new way to see the world.”

Lisa Crow BSc(Hons) and MSc (Geology)

Without understanding Earth’s past and present, you can’t begin to plan for Earth’s future. Many of the world’s critical future challenges lie in the realm of geology: climate change, water quality, sustainability and resources, natural hazards, renewable energy, and infrastructure.

Geology – the study of the Earth and planets – is more relevant today than ever before. If you are passionate about making a difference in an ever-changing society and environment, and want to have adventures that will last a lifetime, geology is for you.

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Why study Geology?

Geology provides the foundations to understand the future of society: from our food and water, buildings and clothing, through to the very land on which we stand. If you are motivated by global challenges such as climate change, sustainability, natural hazards, energy and infrastructure, studying Geology will give you the skill-set required to make a difference in the world.

The solutions to today's great challenges can be solved by studying the world around us. Geologists explore the great outdoors to learn how Earth formed and is continuously changing.

Be part of a dynamic and friendly department that commits to excellence in teaching and research and welcomes you as part of the community.

Career opportunities

A degree in Geology unlocks a wealth of possibilities. The data-handling, problem-solving, and teamwork skills that you learn in Geology provide an opportunity to contribute to:

- Earth processes and history
- Earth resources
- planetary and Space Sciences
- palaeontology and the history of life
- oceanography and Antarctic research
- natural hazard assessment
- geospatial analysis
- environmental protection and sustainability
- renewable energy
- teaching and mentoring
- science policy and advocacy

Background required

Most of all you need enthusiasm, motivation and curiosity. First-year papers provide a broad foundation and assume no previous study of Geology. Fundamental sciences are an integral part of Geology, and it will be beneficial if you have some background in sciences subjects from secondary school.

What will I learn?

A Geology degree will open your eyes to the dynamic processes that occur on Earth and other planets. You will learn how to read and interpret the history of Earth and its lifeforms by studying rocks, minerals, magma, fossils, ice and water. You will learn how Earth's interior interacts with the oceans and atmosphere to regulate global change, and you will become a master of critical observation and interpretation at molecular to plate tectonic scales.

How will I study?

Geology is a hands-on science. Our world-renowned fieldwork and laboratory programmes give you frequent opportunities to work closely with staff, and to put theory into practice. We support varied teaching and learning styles. Since all our staff are active researchers, you will learn about cutting-edge science. Practical work involves both individual projects and small-group studies.

Can I combine my Geology degree with other subjects?

Yes! Geology is a very broad discipline and you can easily combine it with other interests – Anthropology, Botany, Chemistry, Business, Computing, Ecology, Geography, Law, Marine Science, Mathematics, Physics, Surveying and Zoology. Contact our friendly course advisers for help or information.

What about further study?

We offer postgraduate opportunities that are tailored to your interests at honours, master's and PhD level.

Our graduates leave with a wide range of technical and generic skills that make them competitive for employment and advanced study at institutions around the world.

PROFILE

Michael Bollen

Bachelor of Science (Geology and Oceanography)
and Master of Science (Geology)

Michael Bollen has long been fascinated by the natural world, from understanding the huge forces responsible for creating mountain ranges to the formation of the planet's oceans.

The University's location, student culture and the Department of Geology with its hands-on teaching approach, world-class facilities and research opportunities were the reasons he chose to study at Otago.

"Otago has an amazing and supportive student culture rich in heritage, and living in the midst of a true university town is an amazing and unique experience," he says.

"The skills I've been taught over the years have proven to be highly relevant in the real world, and have put me in good stead for life beyond university.

"Staff have been generous and supportive when it comes to opening opportunities beyond university with respect to future employment, higher studies and just general life advice."

Following his Otago BSc, Michael completed his master's on improving our understanding of ancient carbon cycling in the Southern Ocean. As part of his research he spent four months in Antarctica with the US Antarctic Program and Antarctica NZ.

"The hands-on experience, especially through deep-field expeditions and laboratory work, has given me the knowledge and confidence to excel in many fields including the energy industry, local and national government, academia and technical positions."

After graduating, Michael worked for the International Ocean Discovery Program, sailing as a research technician onboard the scientific ocean drilling vessel JOIDES Resolution. He is now enrolled in a PhD programme at the University of Lausanne in Switzerland.

"I believe that my education at the University of Otago has put me in the best possible position to take advantage of every opportunity that comes my way."



For questions about
Geology
otago.ac.nz/geology

