If you’re intrigued by the geological and Earth surface processes that shape our planet, from its deepest interior to its surface, and into neighbouring space, then Earth Sciences is the major for you.

Earth Sciences combines the geoscience disciplines of geology and physical geography. Earth Science graduates examine how the Earth's surface is shaped by natural and human processes, addressing the complex sustainability challenges that face our planet. For example, a smartphone can contain ~80% of the stable elements in the periodic table, and Rare Earth Elements (REE) are fundamental for the global clean energy transition.

What you will learn

Earth Sciences is about understanding how geology and surface processes interact. Understanding Earth systems allow us to learn from the past, comprehend present-day processes, and influence a sustainable future and a circular economy. You will be taught by world-leading experts at New Zealand’s #1 ranked Earth and Marine Science institution.

We strongly emphasise skills development and the application of your Earth Science knowledge in the real world. This is through practical learning via fieldwork and laboratories, including field visits for sampling and testing, as well as equipment application and installation.

You don’t need to have taken any particular subject at high school to be able to study Earth Sciences with us. High school earth science, geography, physics, mathematics, biology and chemistry are beneficial because they provide helpful background knowledge, but they’re not essential. Earth Science students will often have an interest and passion for the natural world, environment and hazards.

Topics you will study:

- Origins of rocks and minerals
- Volcanology, plate tectonics and earth deformation
- Natural hazards and disasters, and mitigation of them
- Earth surface processes, engineering geology and geomorphology
- Environmental and climatic changes, both long-term and short-term
- Sustainable extraction and management of natural resources
- Global energy transition and minerals

Skills you will gain include:

- Understanding the physical, chemical and biological processes of the Earth System
- Geological and spatial field data collection, management, analysis and visualisation
- Applying laboratory and analytical techniques to geological and surface processes and materials
- Understanding and communicating natural hazards and risks
- Problem solving and teamwork
- Respect for the physical environment and cultural heritage

Choosing a subject

With so many options it’s sometimes hard to choose what you want to study, but we’ve got you covered. You can study a double major with our Bachelor of Science to gain a broader base of skills and knowledge.

Complementary majors include:

- Environmental Physics
- Environmental Science
- Geography
- Marine Science
- Geographic Information Science
- or any other major in Science.

Mātai Pūtaiao ā-nuku
Undergraduate Earth Sciences

New Zealand University

No.1 in New Zealand for Employability

Conjoint a BSc to study

2 degrees at once.