

## ENTRY REQUIREMENTS

Minimum university entry requirements apply. Prerequisites apply to first-year Chemistry, Mathematics and Physics; bridging courses are available in the summer semester for students wishing to enrol in these units.

## FOR MORE INFORMATION

Full details of courses, including information about the seven earth sciences course streams, are published on the UTAS website [www.utas.edu.au/courses](http://www.utas.edu.au/courses)

## OR CONTACT

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# Earth Sciences (Geology)



FACULTY OF SCIENCE, ENGINEERING & TECHNOLOGY



FACULTY OF SCIENCE,  
ENGINEERING & TECHNOLOGY

School of Earth Sciences

CRICOS Provider Code: 00586B

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*The Faculty of Science, Engineering and Technology encourages applicants from all equity groups.*

UNIVERSITY OF TASMANIA

*Earth sciences courses provide an understanding of the history, dynamics and features of the Earth and a basis for understanding our environment.*



## EARTH SCIENCES

### WHAT ARE THE EARTH SCIENCES?

The earth sciences include:

**Geology** – the study of the Earth, including studies of tectonic processes leading to volcanic eruptions, earthquakes, and the generation of mineral, oil and gas deposits in the Earth's crust.

**Environmental geology** – combines geology and geography, and is suitable for students interested in the environment, resource management and the issues of conservation in geoscience.

**Geophysics** – combines geology and physics and uses the principles of physics to study the structure and composition of the Earth's crust. Leads to careers in mineral geophysics, petroleum geophysics or geophysical research.

**Geochemistry** – combines geology and chemistry, and provides opportunities in mineral exploration, isotope or hydrothermal geochemistry research.

**Environmental resource science** – study in this area equips graduates with the ability to tackle environmental issues related to the mining, mineral-processing and chemical industries.

**Petroleum geology** – has a specific focus on exploration for the oil and gas industry.

**Economic geology** – combines geology, physics and chemistry in the study of the formation and exploration of mineral deposits. Related careers are in mineral exploration, mining geology, mineral economics, resource management or research in ore deposit genesis.

### CAREERS IN EARTH SCIENCES

If you enjoy being outdoors and are looking for a challenging science-based career with travel opportunities and the thrill of exploration and discovery, then geology is for you.

Graduates from the School of Earth Sciences have pursued a wide range of well-paid, satisfying careers in the mining, energy and environmental sectors. Careers in environmental geoscience, including hydrogeology (the search for water resources), have continued to grow steadily.

### WHAT MAKES US DISTINCTIVE?

Tasmania's wide variety of geology makes it a natural laboratory. As a result, the School of Earth Sciences has attracted some of the best geologists in the world to its teaching and research staff.

### LOCATION

You can study earth sciences at the Hobart campus of the University of Tasmania. The School of Earth Sciences is well known for its geoscience courses relevant to the mining industry.

### CODES

The School of Earth Sciences is co-located with the Centre of Excellence in Ore Deposits (CODES), an Australian Research Council Centre of Excellence. CODES brings together a team of high-calibre Australian and international research scientists in a series of multi-disciplinary programs that cover the spectrum of basic, strategic and applied research into the genesis of and exploration for ore deposits. Field research projects are based in Australia, South-East Asia and South America.

### COURSE STRUCTURE

Within the Bachelor of Science degree framework, there are seven different earth sciences streams for you to choose from:

Stream 1. **General geology**

Stream 2. **Environmental geology**

Stream 3. **Geophysics**

Stream 4. **Geochemistry**

Stream 5. **Environmental resource science**

Stream 6. **Petroleum geology**

Stream 7. **Economic geology**

For example, if you choose to undertake studies in **environmental resource science**, a sample first-year BSc program is as follows:

Understanding Earth Systems (12.5%)

Earth Resources, Environments & Evolution (12.5%)

Geography & Environmental Studies (25%)

Plant Science (25%)

*plus further science courses (25%)*

If you choose to follow the **economic geology** stream, a sample first-year program would be:

Understanding Earth Systems (12.5%)

Earth Resources, Environments & Evolution (12.5%)

Chemistry (25%)

*plus four further science core subjects (4 x 12.5%), preferably including physics, mathematics or computer science.*

A special four-year honours program in economic geology is also available – a separate brochure provides more detail about this innovative course.

### POSTGRADUATE STUDY

Students who gain a good result in third year may proceed to a fourth (honours) year. For suitably qualified graduates, there are opportunities to undertake research higher degrees at masters and doctoral levels. Coursework options include:

- Graduate Diploma in Science, streams in geology, geophysics and geochemistry
- Master of Economic Geology
- Master of Exploration Geoscience
- Master of Science Studies (Geology)

### SCHOLARSHIPS

The University of Tasmania offers national undergraduate scholarships in the geological sciences. The Australasian Institute of Mining and Metallurgy offers scholarships to earth sciences students who undertake the economic geology, geochemistry or geophysics streams, valued at \$5,000 per year. To find out more visit the University's website [www.utas.edu.au](http://www.utas.edu.au), email the Scholarships Office at [Tas.Scholarships@utas.edu.au](mailto:Tas.Scholarships@utas.edu.au) or talk to your careers adviser.