

## What are Mineral Resources?

Mineral resources are at the heart of the world we live in. Economic geologists are multidisciplinary scientists who use geochemistry, mineralogy, geophysics, petrology and structural geology to understand, describe, and exploit mineral resources.

## What careers do economic geologists follow?

Economic geologists are employed in the mineral, oil, gas and petroleum industries, and engineering, environmental, and financial sectors, as well as by geological surveys, consultancy companies, and academia due to the far-reaching impact that extractive industries have on society, the economy, and the environment.

## What will I do during my degree course?

Our MSc in Mineral Resources delivers postgraduate-level knowledge and skills training essential to pursue a career in the mineral industry sector and prepare students for PhD research. The degree is aimed at providing high

levels of practical training and extensive experience with methodologies and technologies currently employed in the mineral exploration industry. A visit to a world-class ore deposit in the UK and to the Rio Tinto mine, an acid mine drainage remediation site in southwest Spain, is part of the programme.

## Degree programme

### Semester 1:

- Magmatic-related Ore Deposits
- Mineral Exploration
- Advanced Petrogenesis
- Applied Geological Mapping

### Semester 2:

- Hydrothermal Ore Deposits
- Geodynamics
- GIS for Earth Scientists\*
- 3D Geological Modeling

### Summer:

- Research Project

\* If a proficiency in GIS is demonstrated this module can be substituted with one from our current curriculum to tailor to student interests (requires approval by the Programme Convener).





## What facilities are available to conduct my research project?

The School houses state-of-the-art stable and radiogenic isotope geochemistry and geobiology laboratories. In addition, the School hosts a range of laboratories dedicated to luminescence spectroscopy, rock magnetism, SEM, electron microprobe, X-Ray diffraction, and X-Ray fluorescence as well as an experimental petrology facility capable of simulating conditions from the mid-crust to upper mantle (pressures between 0.5–4.5 GPa and 300°–2000°C).

## How is the postgraduate community?

A dynamic and research-intensive atmosphere is encouraged and supportive of all students. Our School engenders cohesive and friendly collaborations between staff, postdoctoral research fellows and postgraduate students while our new

state-of-the-art laboratory facilities enable world class research. We are part of the “IAPETUS” NERC Doctoral Training programme, along with the universities of Durham, Glasgow, Newcastle and Stirling, and the British Geological Survey.

## Why choose St Andrews for your MSc in Mineral Resources?

- Awarded 2017 University of the year for teaching quality in the UK (Sunday Times)
- Highest student satisfaction in the UK (National Student Survey 2016)
- Ranked first in Scotland and fifth in the UK in the last Research Excellence Framework
- State-of-the-art laboratory facilities
- Excellent graduate employment prospects

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