

Master's Programme in Geology, Bedrock Geology

LUND UNIVERSITY | SWEDEN

- Master of Science in Geology, specialisation in Bedrock geology
- 2 years, full-time, 120 ECTS credits
- Department of Geology
- Lund Campus
- Application deadline: January 2023
- Programme start: August 2023

PROGRAMME OVERVIEW

Do you want to use knowledge about rocks and minerals to contribute to sustainable solutions within the environmental and natural resources field? Are you fascinated by the structure of Planet Earth, continental plates and volcanoes? This Master's programme gives you leading-edge expertise that is in demand in the national and international labour market.

This Master's programme provides you with specialised knowledge about bedrock geology. You will learn about the formation and structure of Planet Earth and the dynamics of Earth's crust. This is studied through geochronology, geochemistry, sedimentology, structural geology and dating methods. You will also learn about the origin and transformation of minerals and rocks. You will also gain an insight into prehistoric life and how plants and animals evolved over Earth's long history.

Your lectures and exercises will be held in well-equipped facilities. The department has a wide range of advanced research equipment. Here, you will find instruments for geochemical analysis, state-of-the-art microscopes for analysing rocks and microfossils, and various dating laboratories, for example to determine the age of unusual minerals whose atoms can tell us about continental drift and the formation of mountain ranges over hundreds of millions of years.

Fieldwork is also an important part of the programme. You will participate in field courses and excursions in Sweden and abroad to learn more about different types of bedrock. The Master's programme has a strong connection with research and all members of the teaching staff are researchers. The department has several world-leading research teams. The language of instruction for the

programme is English. You will conduct oral and written presentations and gain extensive experience of working in groups.

PROGRAMME MODULES/COURSES

In the first semester, you will take courses in sedimentary geology and basin analysis as well as magmatic petrology, geochemistry and geochronology. In the following spring semester, you can study metamorphic petrology and structural geology and take a course on the evolution of the biosphere, palaeoecology and palaeontology. Alternatively, you can choose a course on global environmental change from a geological perspective. There is also an option to combine courses in bedrock geology with other courses, for example in Quaternary geology. On admission to the programme, you will automatically be placed on the first semester's two courses.

The second year of studies consists of an optional course (15 credits) and degree project (45 credits. The degree project normally includes fieldwork in Sweden or abroad, followed by analysis work in one of our research laboratories. Data processing and a literature review are included in the thesis work.

CAREER PROSPECTS

Demand for geological expertise will only increase in the future to address the major societal challenges we are facing. With a Master's degree in Geology, you will be well-equipped with both general and specific subject knowledge. Many of our students get jobs as environmental consultants or specialists within the mining, construction or civil engineering sectors. Others make a career in public authorities, such as the Geological Survey of Sweden, county administrative boards or the Swedish Environmental Protection Agency, often focused on sustainable management of groundwater and other geological resources. You can also work in municipal planning, nature conservation and other types of public information within the field. Geological knowledge is in demand all over the world and there are good opportunities to find jobs abroad, for example concerning water supply in developing countries or in major infrastructure projects. The programme also qualifies you for third-cycle studies.



"Studying geology at Lund University is easily the best decision that I have ever made. The quality of teaching is excellent and regular field trips help to strengthen the bonds between students and professors. The research facilities are excellent and the department is very accommodating to your research interests."

James Davies from the UK



ENTRY REQUIREMENTS AND HOW TO APPLY

Entry requirements

A Bachelor's degree of at least 180 credits in geology or the equivalent. The degree must include at least 90 credits in geology. English Level 6.

How to apply

- **1. Apply online:** Go to www.lunduniversity.lu.se/bed-rock-geology. Click on "Apply" and follow the instructions for the online application at www.universityadmissions.se, the Swedish national application website. Rank the chosen programmes in order of preference.
- 2. Submit your supporting documents: Check what documents you need to submit (i.e. official transcripts, degree diploma/proof of expected graduation, translations, proof of English, passport) and how you need to submit them at www.universityadmissions.se.
- **Programme-specific supporting documents:** When applying for this programme, you must also submit a 'Summary Sheet' with your application. See the programme webpage for details.
- 3. Pay the application fee (when applicable).

Selection criteria/additional info

The selection will be based on grades awarded for previous academic courses and the statement of purpose for the application (from the applicant's 'Summary Sheet').

Tuition fees

Tuition fee SEK 170 000 per year for non-EU/EEA citizens. No fee for EU/EEA citizens. See www.lunduniversity.lu.se for details on tuition fees

ABOUT THE DEPARTMENT OF GEOLOGY

Lund University is the leading centre for geology education in Sweden. We cover the entire spectrum of geological disciplines, and several world-leading research groups are hosted at the Department of Geology. This competence is reflected in our education, and as a student you will be exposed to cutting-edge analytical techniques, novel scientific results and relevant applications of geological knowledge in society. Our education is to a large extent based on field and laboratory activities, and we benefit greatly from the unusual geological diversity of southern Sweden.

CONTACT

Programme webpage: www.lunduniversity.lu.se/bedrock-geology

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Lund University was founded in 1666 and is repeatedly ranked among the world's top universities. The University has around 45 000 students and more than 8 000 staff based in Lund, Helsingborg and Malmö. We are united in our efforts to understand, explain and improve our world and the human condition.

Learn more at www.lunduniversity.lu.se

