Master's Programme in Geology, Quaternary Geology

LUND UNIVERSITY | SWEDEN

- Master of Science in Geology, specialisation in Quaternary geology
- 2 years, full-time, 120 ECTS credits
- Department of Geology
- Lund Campus
- Application deadline: January 2024
- Programme start: August 2024

PROGRAMME OVERVIEW

Are you interested in climate variations and how ice age cycles have affected landscapes, animals and plants? Do you find it appealing to use knowledge about Planet Earth's dynamic processes to assist in efforts to meet current societal challenges? This Master's programme gives you leading-edge expertise that is in demand in the national and international labour market.

The programme provides you with specialised knowledge about climate variations, glaciers and ice age cycles over the past 2.6 million years. You study the characteristics and distribution of deposits and the processes that created them and which in part are still ongoing. You will also gain specialised knowledge about the changes that took place during the Quaternary period regarding plants, animals, oceans, lakes and wetlands, as well as human evolution and humankind's effect on the environment. Environmental analysis and dating methods are also included.

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 sediment and microfossils, and various dating laboratories, for example to determine the age of ancient wood material whose tree rings can tell us about climate change and cultural development over thousands of years.

Fieldwork is also an important part of the programme. You will participate in field courses and excursions to southern Sweden and the Scandinavian mountains to learn more about sediments, landforms and glaciers. The 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 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 glacial sedimentology and palaeoecological methods and environmental analysis. In the following spring semester, you can study marine geology and take a course on global environmental change from a geological perspective. You can also combine courses in Quaternary geology with other courses, for example in bedrock 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

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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/quaternary-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/quaternary-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

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