Angewandte Geowissenschaften
(Applied Geosciences)

Master

Master of Science
bilingual (EN/DE)

120 CP

effective: 06/2025 | Foto: MLU / Thomas J. Degen

MARTIN-LUTHER-UNIVERSITÄT
HALLE-WITTENBERG

Programme at a glance

Faculty of Natural Sciences 3 – Agrarwissenschaften, Geowissenschaften und Informatik

Institute of Geosciences and Geography

Programme type: Bilingual master's programme with 120 credit points (CP), languages: English and German

Degree: Master of Science (MSc)

Standard period of study: 4 semesters

Start of Studies: Winter semester

Specific admission requirements: Yes

This study programme is **accredited**.

Programme objectives

The aim of the bilingual, consecutive masters's programme in *Angewandte Geowissenschaften (Applied Geosciences)* (hereinafter *Applied Geosciences*) is to provide in-depth knowledge in the geosciences. The understanding of the processes in the Earth's interior and on the Earth's surface is furthered using scientific methods; the spatio-temporal dynamics of the Earth System are studied and investigated in a comprehensive and holistic manner. The training in methods and techniques for independent, responsible work in the following selectable subjects areas is of fundamental importance and skills in these subjects will be trained and developed:

- → **Geodynamics** (research on the deformation and rheology of geomaterials; basic geoscientific research and provision of geoscientific data for society; assessment of geohazards)

- → **Applied Geology** (quantitative and qualitative hydrogeology; near-surface and deep geothermal energy; basic principles of engineering geology)

- → **Technical Mineralogy, Geochemistry** (apparative synthesis and analysis of natural and anthropogenically produced geomaterials; treatment, recycling and disposal of mineral residues; CO_2 storage; characterisation of the properties of amorphous and crystalline materials)

→ **Sedimentary systems and resources** (sediment dynamics of fluvial, coastal and shallow marine systems in modern environments and geological records; integration of sedimentological techniques in the field and in the laboratory, use of UAV and LiDAR to create digital outcrop and terrain models)

Career opportunities

The *MSc Applied Geosciences* qualifies for complex geoscientific activities and tasks in science, industry, and business. The objective is to train broadly based specialists who can guide future-oriented search for and use of natural geological resources.

The profile of the study programme qualifies for the following research and professional fields: University and research institutions, scientific and economic service sector on a national and international level (public offices and authorities, industrial companies, geoscience consulting, mineral resource companies, insurance companies, energy companies).

It also qualifies for PhD positions.

Admission requirements

Applicants must hold a bachelor's degree or equivalent degree in geosciences or comparable field with a **minimum grade of 2.8 or better** according to the German academic grading scale.

A study programme is comparable if at least 20 CP have been obtained in foundation courses in mathematics, physics, chemistry and at least 60 CP have been obtained in basic courses in geology and mineralogy, including geological field experience. Decisions on comparability are made by the examination board on the basis of the transcript of records submitted.

Applicants must prove their **English language proficiency** by submitting either TOEFL, IELTS, Cambridge Certificate, Unicert II, German Abitur or an equivalent internationally recognised language certificate attesting **level B2** according to the Common European Framework of Reference for Languages. However, proof of language proficiency is not required if the

first degree was obtained in a study programme taught in English.

Important note: The *MSc Applied Geosciences* is a bilingual study programme (English/German). Therefore, international applicants must additionally prove their German language proficiency for studies. For further information, please see *www.uni-halle.de/apply*.

Application

The admission to the *MSc Applied Geosciences* is currently **not restricted** (no NC).

- → Applicants with a bachelor's degree (or equivalent) obtained in Germany must apply via *www.uni-halle.de/bewerben* by **31 August**.
- → Applicants with a bachelor's degree (or equivalent) obtained abroad must apply via *www.uni-assist.de* by **15 June**.

About Halle

Study in Halle because...

- → the contact between teachers and students is very good and we promote a positive learning environment.
- → the courses are very varied with seminars, exercises, laboratory experiments and field work.
- → the lecture halls and seminar rooms in our building have upscale technical equipment.
- → our students find a branch library in the department, which is characterized by a very good availability of the required literature, a high topicality of the stock, good access to electronic journals and books as well as an individual support of the users.
- → selected rocks are displayed in the Geological Garden of the Institute, which provides an idea of the diversity of rock types in Germany.
- → we have one of only about 40 coordination offices for sustainability at universities in Europe. We are committed to the sustainable design of research and teaching.

Halle University reconsiders its admission policy every winter semester and determines whether admission to a study programme is restricted (Uni-NC) or free (no NC). From May each year, the current decision is published at *www.uni-halle.de/+ageom.*

Please also check this website for the documents required for the application as well as for possible changes.

Modules

The content, learning objectives, workload, requirements and prerequisites of specific modules are published in the module catalogue and the *study and examination regulations* (in German only).

Module	CP	rec. sem.
Compulsory module		
Master's thesis	30	4.
Elective modules: Geosciences	max. 90	1.–4.
Geodynamics		
Technical Mineralogy		
Petrology and Exploration Geology		
Applied Geology		
Elective modules: Subsidiary subjects	max. 20	1.–4.
Additional elective modules	max. 10	1.–4.

Programme advisor/Project coordinator

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→ *www.geo.uni-halle.de* (in German and English; German description of this master's programme also available)

General student guidance

E-Mail: ssc@uni-halle.de
Location: Studierenden-Service-Center (SSC),
Universitätsplatz 11 → Löwengebäude,
06108 Halle (Saale), Germany

Office hours: see www.uni-halle.de/ssc
We recommend making an appointment in advance.

International students section

E-Mail: international.students@uni-halle.de
Location: Studierenden-Service-Center (SSC),
Universitätsplatz 11 → Löwengebäude,
06108 Halle (Saale), Germany

Postal address:
Martin-Luther-Universität Halle-Wittenberg
06099 Halle (Saale)
Germany

→ *www.uni-halle.de/international-students*
→ *www.uni-halle.de/apply*

Publisher's note

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www.uni-halle.de/+ageom