



GEOTECHNOLOGY | MASTER

PROGRAM PROFILE

Steady growth of world population calls for economic and ecological utilization of all georesources. These include drinking water, mineral resources, hydrocarbon reservoirs and geothermal reservoirs. They also encompass reservoir rocks for resources and waste products as well as safe construction grounds for infrastructural projects such as highrise buildings, traffic structures above and below the surface or water reservoirs. In order to plan and realize such projects, geological subterranean properties must be assessed and technical criteria explored and scientifically modeled. **Geotechnological underground models** form the basis of planning and construction.

Specialization and Interdisciplinary Learning

The masters program builds upon a bachelor degree or equivalent qualification in Geotechnology and proceeds by concentrating on a chosen field of study offered by the Department of Applied Geosciences – Institut für Angewandte Geowissenschaften. Specialization in one of the following:

Exploration Geology, Hydrogeology, Engineering Geology, Applied Geophysics, Applied Mineralogy-Petrology, must be complemented with a second subject offered at the department. Interdisciplinary approaches to learning are reinforced in the third semester when all specialization fields converge to work on a specific practical problem. The course’s high technical standards are evident in the 12 ECTS credits awarded to optional engineering modules. The fourth semester is reserved for the Masters thesis.

Science

Besides consolidating practical abilities, the program’s major concern is to promote all necessary skills for **scientific work**.

APPLICANTS

Our Masters degree course is tailored towards graduates with a **Bachelor degree or a Diploma** in Geosciences, Geophysics, Geochemistry and Mineralogy. The programme has been devised in such a way, that graduates of related fields such as Geodesy, Geoinformation, Geography, Agronomy, Landscaping, Ecology, Civil Engineering and Material Science, can be integrated. If necessary this may require additional specialization commitments. **All core modules are taught in German.**

CAREER PROSPECTS

In the past our graduates’ **technical strengths** have proved to be a welcome asset – mainly in **consulting** but also in the productive sector such as the **water and resource industry and civil engineering**. A growing need for geothermic energies and underground waste and toxins disposal is increasing the demand for geotechnologists. Alternatively graduates may pursue a scientific career at a research institute; due to current concerns regarding public services, applied geosciences are becoming an integral element in complex **scientific studies**.



PROGRAM STRUCTURE

The masters degree program is a two year course, including the masters thesis. It is divided into modules. 120 ECTS credits in accordance with the European Credit Transfer System must be attained over the course of 4 terms. The curriculum offers a catalogue of core modules offering various fields of specialization. The main element of the masters degree course encourages individualization within the fields of **Applied Geophysics, Exploration Geology, Hydrogeology, Engineering Geology and Mineralogy-Petrology.**

| 1ST TERM | 2ND TERM | 3RD TERM | 4TH TERM |
|-------------------------------|---|---|------------------|
| Geotechnology Core Subject | | | |
| Geotechnology Minor Subject 1 | Mandatory Elective Module Core Field | Geotechnology Project | |
| Geotechnology Minor Subject 3 | | Geotechnology Seminar | |
| Engineering 1 | | Engineering 2 | |
| ELECTIVES | | MANDATORY ELECTIVE: INTERDISCIPLINARY COURSE | MASTERS THESIS |
| 30 CREDIT POINTS | 30 CREDIT POINTS | 30 CREDIT POINTS | 30 CREDIT POINTS |

APPLICATION

The masters program Geotechnology starts in **the winter term, with 15 to 30 students joining each year.** Application requirements are a bachelor degree or equivalent qualification in Geotechnolgy or other Geosciences. Sound knowledge of German is expected and must be documented.

The **application deadline for the coming winter term is June 15th.** All relevant forms and verifications can be sent by email or by post to the admissions office at the TU Berlin. For further details please go to the course website.

CONTACT US

Masters program Geotechnology

Prof. Dr. Joachim Tiedemann, Sekr. ACK 8
 TU Berlin, Ackerstraße 76, 13355 Berlin
 Phone: +49 (0)30. 314 - 726 65
 Email: tiedemann@tu-berlin.de
www.geo.tu-berlin.de

General Student Enquiries

www.studienberatung.tu-berlin.de

School of Planning | Building | Environment

www.planen-bauen-umwelt.tu-berlin.de