The 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.

**Natural Science and Engineering**
Subject specific, underground assessment and its scientific modeling are based on well-founded geoscientific knowledge, measuring methods and data evaluation as well as on familiarization with each engineering project. This includes working within the boundaries of technological regulations.

After three terms the course focus shifts from natural sciences and basic engineering to Geotechnology, which is divided into five fields of study: Applied Geophysics, Applied Mineralogy, Engineering Geology, Hydrogeology and Exploration Geology. Besides theoretic studies, students have the opportunity to enhance their practical skills in numerous hands-on projects in the laboratory as well as on site.

**Integrated Program**
Students will choose a specialization in the sixth term by choosing a module and the topic of their bachelor thesis. The course schedule focuses on the integrated application of the specific scientific methods favored in each field.

**APPlicants**
Our degree course is tailored towards anyone who would like to combine applied natural sciences with technology. The course schedule concentrates on scientific subjects including mathematics, physics and chemistry as well as on fields of engineering such as mechanics. As many of our geo-technical projects are carried out partly or entirely abroad, students must bring with them a readiness to travel and an interest in communication and languages.

**Career Prospects**
Career opportunities are market dependent – most jobs being predominantly industry based. In the past our graduates’ technical strengths have proved to be a welcome asset – mainly in consulting but also in the productive industries such as the water, resource and subterranean engineering sector. A growing need for geothermic energy and underground waste and toxin disposal are increasing the demand for geotechnologists.
Program Structure

Our bachelor degree course in Geotechnology spans six terms, including the bachelor thesis. The program is divided into modules. Overall 180 ECTS credits must be attained in accordance with the European Credit Transfer System. 64 credits are awarded for basic geoscientific and geotechnological skills. 46 credits go to modules in basic natural science and 8 credits to engineering modules. A further 36 credits go to mandatory elective modules and 14 credits are assigned to elective modules.

Application

The bachelor program Geotechnology starts in the winter term, with 40 students joining each year. Standard application requirements include a baccalaureate or similar qualification. Sound knowledge of German is also necessary and must be documented.

The application deadline for the coming winter term is July 15th. Admission applications are accepted from the beginning of June. 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 visit our program website: www.geo.tu-berlin.de.

Contact Us

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1st Term
- Foundations of Geosciences I
- Lithology I
- Organic Chemistry
- Mathematics / Physics / Chemistry
- BASIC NATURAL SCIENCE

2nd Term
- Physics Lab
- Geo-data and GIS

3rd Term
- Basic Geotechnology
- Field Practicum
- Mathematics
- Mechanics
- MANDATORY ELECTIVES: INTERDISCIPLINARY COURSE

4th Term
- Foundations of Geosciences II
- Lithology II
- Mechanics
- Mandatory Elective Module: Basic Engineering
- ELECTIVES TU BERLIN

5th Term
- Integrated Geotechnologies
- Exploration Geology
- Exploration Geology
- Interdisciplinary Field Practicum

6th Term
- Specialization in Geotechnology
- Two Subjects:
  - Engineering Geology
  - Hydrogeology
- 30 CREDIT POINTS

Date: 06/2019