

Mining Engineering

Technische Universität Clausthal
Master of Science



General

Exploration, extraction, conveying and the processing of raw materials

Our Mining Engineering students will be trained in a diversity of fields regarding the raw material production. The main focus is on gaining in-depth knowledge in exploration, extraction, conveying and the processing of raw materials. In addition, students will gain practice from outside the main subject such as interpersonal skills. The combination of different disciplines guarantees a complete preparation for the graduate's future professional development as a mining engineer. The student will achieve competence from both university and internships and thus be able to cope with functions in leadership and engineering practice, also working interdisciplinary and considering sustainability.

Why Clausthal?

Clausthal University of Technology is one of three Universities within Germany offering a Mining Engineering programme. However, it is the only one taught entirely in the English language. Clausthal University of Technology offers a familial atmosphere; with about 4000 Students and 80 Professors we do have a very good students/professor ratio. Also, with about 30 % of international students there is a wide spectrum of cultures in Clausthal, and a lot of events to meet and learn about these. For those who like to do some sports after the lectures and learning, Clausthal University of Technology offers courses with about 60 different sports for the students.

Program outline

Type of program: Master

Duration: 4 Semester

Language of teaching: Englisch

Degree: Master of Science (M.Sc.)

Start date: Admission to the winter semester, but also to the summer semester

Akkreditation: Akkreditierungsbescheid (AR); EUR-ACE® Master accredited until 2028_09_30



TU Clausthal

Contact

Program Advisors

Prof. Dr.-Ing. Oliver Langefeld
Phone: +49 5323 72-2440
E-Mail: ma.minEng@tu-clausthal.de

Sandra Nowosad
Phone: +49 5323 72-2319
E-Mail: ma.minEng@tu-clausthal.de

Program structure

Program structure

The curricula Mining Engineering comprises 120 ECTS, equally distributed over 4 terms. These ECTS are split to 21 modules, 16 of these are compulsory modules, 4 compulsory optional subjects free to choose and the Master's Thesis. The 17 compulsory modules provide the basic methodical and interdisciplinary skills needed by a mining engineer, also they provide the basics for the advanced compulsory optional subjects.

In a seminar and a student research project the students deepen their expertise in one of the special fields of the study programme. Furthermore, the student will broaden his/her skills on scientific working and writing, leading to a good preparation for writing of the Master's Thesis.

- Surface Mining
- Underground Mining

- Rock Mechanics
- Mine Surveying
- Mine Ventilation
- Mineral Processing

Industrial placement

An eight weeks internship in the field of Mining or Mining Equipment is required. For our international students we recommend to take this internship before starting the studies, as for internships in Germany often German language skills are required for safety reasons in the mines.

Perspectives

Jobs and careers

A reliable Raw Material supply is the backbone of our society, and today the extraction is a growing market worldwide. This is followed by a continuously increasing need of specialists who are able to recognize and solve interdisciplinary problems from the fields of raw material production, environmental engineering and geology. Coping with the area of tension between using and preserving our planet in terms of sustainability is today's mining engineer's challenge.

The program M.Sc. Mining Engineering provides the graduate with scientific knowledge and gives systematic preparation for advanced job requirements. By completing the program, the graduate will be able to fill both leadership and technical positions. Furthermore, he/she is well prepared for jobs in the research and development at private companies as well as universities. The English language as medium of instructions opens the doors to positions to various field of Mining all over the globe.

- Mining Methods
- Mining Equipment
- Mine Planning
- Underground Mine Ventilation
- Rock Mechanics
- Sustainability Aspects in Mining

Application

Prerequisites

The M.Sc. Mining Engineering is a consecutive programme to a Bachelor's degree in Mining Engineering. Therefore, only graduates of a B.Sc. Mining Engineering or closely related study programs may apply for this programme.

[Apply now! >](#)

Bergbau