



TUBAF

The University of Resources.
Since 1765.



STUDY IN FREIBERG

tu-freiberg.de/en



STUDY PROGRAMS

Doctoral studies are possible in all subjects represented by our professorships. For details please visit this website: tu-freiberg.de/en/grafa

Degree program name in English	Degree program name in German	Ba.	Ma.	Dipl.	Language	Start
MATHEMATICS, COMPUTER SCIENCE & NATURAL SCIENCES						
Applied Computer Science	Angewandte Informatik	6	4			W,S
Applied Mathematics	Angewandte Mathematik			9		W,S
Applied Natural Science	Angewandte Naturwissenschaft	6	4			W,S
Business Mathematics	Wirtschaftsmathematik	6	4			W,S
Chemistry	Chemie	6	4	10		W,S
Mathematics for Data and Resource Science			4			W, S
Mathematics in Economics, Engineering and Computer Science	Mathematik in Wirtschaft, Engineering und Informatik	6				W,S
Robotics	Robotik			10		W,S
Sustainable and Innovative Natural Resource Management (SINReM)			4			W,S

EARTH SCIENCES

Advanced Mineral Resources Development (AMRD)			4			W
Applied Geoscience			4			W
Geocology	Geoökologie	6	4			W,S
Geoengineering	Geoingenieurwesen			10		W,S
Geoinformatics	Geoinformatik		4			W,S
Geoinformatics and Geophysics	Geoinformatik und Geophysik	6				W,S
Geoengineering	Geoingenieurwesen			10		W,S
Geology/Mineralogy	Geologie/Mineralogie	6				W,S
Geomatics for Mineral Resource Management			4			W
Geophysics	Geophysik		4			W,S
Geosciences	Geowissenschaften		4			W, S
Geothermal Energy	Geothermie		3			W,S
Groundwater Management			4			W
Space Resources	Weltraumtechnologien	7				W
Sustainable Mining and Remediation Management (MORE)			3			W,S

ENGINEERING SCIENCES

Additive Manufacturing (Technology, Material, Design)	Additive Fertigung (Technologie, Material, Design)	7	3			W,S
Advanced Materials Analysis (AMA)			4			W
Ceramic, Glass and Building Materials Technology	Keramik, Glas- und Baustofftechnik		3	10		W,S
Chemical Engineering			4			W
Computational Materials Science (CMS)			4			W

STUDY PROGRAMS

Degree program name in English	Degree program name in German	Ba.	Ma.	Dipl.	Language	Start
Energy Engineering	Energietechnik	7	3		🇩🇪	W,S
Engineering (Specialisations: Mechanical Engineering, Process & Chemical Engineering, Energy Engineering, Environmental Engineering, Technology and Application of Non-Metallic Materials, Responsible Production and Consumption)		7			🇩🇪	W,S
Environmental Engineering	Umwelt-Engineering		3		🇩🇪	W,S
Environmental Technology	Umwelttechnik		3		🇩🇪	W,S
Foundry Technology	Gießereitechnik	7	3		🇩🇪	W,S
Industrial Engineering and Management	Wirtschaftsingenieurwesen	7	3	10	🇩🇪	W,S
Materials Science and Technology	Materialwissenschaft und Werkstofftechnologie	7	3	10	🇩🇪	W,S
Mechanical and Process Engineering (MPE)			4			🇬🇧 W
Mechanical Engineering	Maschinenbau		3	10	🇩🇪	*
Metallic Materials Technology (MMT)			4			🇬🇧 W,S
Nanotechnology	Nanotechnologie		4	10	🇩🇪	W,S
Process Engineering and Chemical Engineering	Verfahrenstechnik und Chemieingenieurwesen		3	10	🇩🇪	W,S
Technology and Application of Inorganic Engineering Materials (TAIEM)			4			🇬🇧 W

* Diplom degree Mechanical Engineering starts in winter semester, Master's degree starts in winter and summer semester

ECONOMICS AND INTERDISCIPLINARY STUDY PROGRAMS

Business Administration	Betriebswirtschaftslehre	6	4		🇩🇪	W,S
Business Analytics			4		🇩🇪	W,S
Business and Law		8			🇩🇪	W,S
Energy and Resource Management	Energie- und Ressourcenwirtschaft		4		🇩🇪	W,S
Industrial Archaeology	Industriearchäologie	6			🇩🇪	W,S
Industrial Engineering and Management	Wirtschaftsingenieurwesen	7	3	10	🇩🇪	W,S
Industrial Heritage	Industriekultur		4		🇩🇪	W,S
International Business and Resources in Emerging Markets (IBRE)			4			🇬🇧 W
Technology Law	Technikrecht		4		🇩🇪	W,S

POSTGRADUATE STUDY PROGRAMS

Business Administration	Wirtschaftswissenschaften			4	🇩🇪	W,S
Environmental Process Engineering	Umweltverfahrenstechnik			4	🇩🇪	W,S

Ba. Bachelor's degree program (the number indicates study period in semesters)

Ma. Master's degree program (the number indicates study period in semesters)

Dipl. Diplom degree program (the number indicates study period in semesters)

🇩🇪 Language of instruction is German

W Winter semester (1 October – 31 March)

🇬🇧 Language of instruction is English

S Summer semester (1 April – 30 September)

More information:
tu-freiberg.de/study-programs





MASTER PROGRAMS IN ENGLISH

APPLIED GEOSCIENCE

Goals: Gain thorough knowledge in one of these specialisations:

1. Computational and Mathematical Geoscience
2. Environmental Geoscience
3. Groundwater Resources
4. Tectonics and Geo-Thermochronology

Degree: Master of Science (M.Sc.)

Specifics: Evaluate problems related to geoscience, environmental impact and risk assessment studies.

Tuition fee: None

Pre-requisite: GMAT 570 points or GRE 305 points minimum

Start: Winter semester (1 October)

Duration: 4 semesters



ADVANCED MINERAL RESOURCES DEVELOPMENT (AMRD)

Goals: To gain competence in developing sustainable, environmental friendly methods in mining and mine remediation from an economic point of view. The Master's program combines natural, engineering, and economic sciences and encourages the acquisition of intercultural competence.

Degree: Master of Science (M.Sc.)

Specifics: Study in three different countries. Besides Austria and Germany, choose between China, Iran, Portugal, Mongolia and Spain.

Tuition fee: yes, at partner universities

Start: In winter semester in Leoben/Austria

Duration: 4 semesters



GROUNDWATER MANAGEMENT

Goals: Gain knowledge of hydrosphere, water chemistry, modeling and groundwater rehabilitation. Combine it with management techniques and business administration skills. Apply field and laboratory methods, numerical modeling of flow, transport and chemical reactions in aquatic systems. Learn how to develop methods for groundwater protection.

Degree: Master of Science (M.Sc.)

Specifics: Higher education in environmental law and general management of geo-resources

Tuition fee: None

Start: Winter semester (1 October)

Duration: 4 semesters



GEOMATICS FOR MINERAL RESOURCE MANAGEMENT

Goals: Geomatics is an interdisciplinary field of research that combines aspects of surveying and sensor technology with data processing, geoinformatics and geomodelling. The main focus of Geomatics lies on the regulation and control of the interplay between resource extraction and its environmental impact.

Degree: Master of Science (M.Sc.)

Specifics: Sensing technologies for mine data gathering, spatial (big) data management and visualization, spatial (big) data analysis and modelling

Pre-requisite: German B1 required

Tuition fee: None

Start: Winter semester (1 October)

Duration: 4 semesters



SUSTAINABLE MINING AND REMEDIATION MANAGEMENT (MORE)

Goals: Gain knowledge and skills for self-reliant scientific work in the fields of environmentally friendly mining, mining remediation and revitalisation of industries.

Degree: Master of Science (M.Sc.)

Specifics: Based on the worldwide unique German know-how on mining remediation, especially for uranium, lignite and ore mining.

Tuition fee: None

Start: Winter semester (1 October), start in summer semester requires an individual curriculum

Duration: 3 semesters



ADVANCED MATERIALS ANALYSIS (AMA)

Goals: Materials analysis plays a key role not only in research and development but also in their production control. Learn techniques for the analysis of materials like advanced steels, materials for electronics, shape memory alloys and energy materials.

Degree: Master of Science (M.Sc.)

Specifics: The strongly methodological character of the programme will open the door to a quite versatile range of industrial fields, from metallurgy to semiconductor industry, in academic research and in research centres.

Tuition fee: None

Start: Winter semester (1 October)

Duration: 4 semesters



COMPUTATIONAL MATERIALS SCIENCE (CMS)

Goals: Be able to simulate material behavior in several computational methods, build the links between Mechanical Engineering, Materials Sciences and Solid State Physics. Master predictive simulation tools to understand and to design the structure and properties of materials at all length scales.

Degree: Master of Science (M.Sc.)

Specifics: Cutting-edge research applications, interaction with industrial partners during seminars.

Tuition fee: None

Start: Winter semester (1 October)

Duration: 4 semesters



TECHNOLOGY AND APPLICATION OF INORGANIC ENGINEERING MATERIALS (TAIEM)

Goals: Develop the knowledge on key materials such as steels and ceramics, their design, properties, applications and production technologies. Become a specialist in design & production tailored to work in a wide range of strategic industries.

Degree: Master of Science (M.Sc.)

Specifics: Interdisciplinary and practice-oriented degree course, learn via laboratory and practical courses to apply the theoretical knowledge in real applications.

Tuition fee: None

Start: Winter semester (1 October)

Duration: 4 semesters



MECHANICAL AND PROCESS ENGINEERING (MPE)

Goals: This degree program leads to advanced knowledge and skills, methodical and technical expertise in the field of Mechanical and Process Engineering. It combines knowledge from both mechanical and process specifics – machinery and plants with methods of process engineering.

Degree: Master of Science (M.Sc.)

Specifics: Familiarization with modern design methods and at least one numerical tool. Working on projects in small, intercultural teams.

Tuition fee: None

Start: Winter semester (1 October)

Duration: 4 semesters



METALLIC MATERIALS TECHNOLOGY (MMT)

Goals: Gain deeper knowledge in metal production especially in steel making, secondary metallurgy, continuous casting and foundry technology.

Degree: Master of Science (M.Sc.)

Specifics: Graduates can work in the following areas: Iron and steelmaking industry, foundry industry, metal forming industry, engineering industry, refractory industry, metal processing industry, process development, technical sales and distribution, research institutions.

Tuition fee: None

Start: Summer semester (1 April), starting in winter semester (1 October) is possible, but may lead to an extension of studies

Duration: 4 semesters



SUSTAINABLE AND INNOVATIVE NATURAL RESOURCE MANAGEMENT (SINReM)

Goals: The program focuses on innovative and sustainable production, recovery and management of primary and secondary resources. Scientific-technological fields are combined with economic, environmental and entrepreneurial aspects and circular economy. In the the second year students choose from one of these specialisations: Sustainable Processes, Georesource Exploration, Resource Recovery and Sustainable Materials, Circular Societies and Sustainable entrepreneurship.

Degree: Master of Science (M.Sc.)

Specifics: SINReM is organised by Ghent University in Belgium, TU Bergakademie Freiberg and Uppsala University in Sweden. The graduate obtains a joint diploma from three universities.

Tuition fee: 6,000 euro/year for students from the EU and EEA; 12,000 euros/year for non-European students; scholarships available

Start: 1 September at Ghent University

Duration: 4 semesters



MATHEMATICS FOR DATA AND RESOURCE SCIENCE

Goals: Successful graduates of the Master's program will have acquired the techniques, methods and general mathematical skills to solve the most pressing problems of today. These include the ability to understand and exploit large amounts of data, a mastery of so-called computer-based machine learning as well as a broad understanding of problems in the field of scarce resources.

Degree: Master of Science (M.Sc.)

Specifics: Application-oriented degree program

Tuition fee: None

Start: Winter semester (1 October),
summer semester (1 April)

Duration: 4 semesters



INTERNATIONAL BUSINESS AND RESOURCES IN EMERGING MARKETS (IBRE)

Goals: To provide future Eastern and Western managers the theoretical and practical insights into modern international business administration and development economics needed to excel in top-careers.

Degree: Master of Business Administration (MBA)

Specifics: Possibility to study one semester abroad at a partner university, double degree options.

Tuition fee: None

Pre-requisite: GMAT 570 points or GRE 305 points minimum

Start: Winter semester (1 October)

Duration: 4 semesters



CHEMICAL ENGINEERING (MCE)

Goals: This course deals with all processes in which substances are changed in their composition, type or properties by mechanical, thermal, chemical or biological processes. It includes modules that have been carefully selected to ensure that the graduate will be qualified to take on responsible positions in industry or academia, e. g. by training practical skills in hands-on laboratory or pilot plant work.

Degree: Master of Science (M.Sc.)

Specifics: R&D, Project Planning, Operation and Maintenance of Process Engineering Equipment and Systems

Tuition fee: None

Start: Winter semester (1 October)

Duration: 4 semesters





AT A GLANCE

THE CITY OF FREIBERG

- About 42,000 inhabitants
- Founded in the 12th century, the city developed rapidly, thanks to the discovery of **silver ore**
- A leading centre of **semiconductor industry**
- The **charming medieval city centre** with original architecture attracts many tourists
- Home to the oldest municipal theatre, to a multiplex cinema, several bowling alleys and a pub mile frequented by students
- All four seasons are well represented in Freiberg:
 - In the heat of the summer months, several outdoor **swimming** pools and natural lakes offer a cool-down after a hard day's work.
 - In winter, the hills surrounding Freiberg are ideal for **hiking, skiing** and **snowboarding**.

The average costs of living in Freiberg depend on your individual lifestyle and may vary between 750 and 950 € per month. For visa application you have to prove the availability of 11,904 € for one year (992 per month).

AVERAGE COSTS PER MONTH IN FREIBERG

Rent and utilities	200–380 €
Supply of electricity	35–40 €
Food, home necessities, laundry, etc.	300 €
Public health insurance	120 €
Phone & mobile internet	20 €

IMPORTANT FEES IN FREIBERG

Public TV & radio license fee per month (obligatory):	18.36 €
Semester fee (each 6 months):	94 €
Semester fee starting summer sem. 2025:	104 €
Residence permit for one year:	100 €

EXAMPLES OF OTHER EXPENSES IN FREIBERG

City bus ticket	2.70 €
Train ticket to Dresden (one way):	12.50 €
Visit to the cinema	7–9 €



UNIVERSITY

ABOUT TUBAF

- Founded in 1765, it is regarded as the oldest mining university in the world
- **Size: 3,471 students** (winter semester 2022/2023)
- **41.4 % international students** (winter semester 2022/2023)
- TU Bergakademie Freiberg is one of the world's leading universities in the fields of mining, geosciences and materials science.
- In the QS World Ranking in the category Engineering – Mineral & Mining it is currently in 22nd place.
- **No tuition fees** for most degree programs
- More than 150 exchange agreements with foreign universities
- TUBAF hosts the **terra mineralia**, one of the world's most beautiful mineral collections
- TUBAF owns an underground mine for study and research
- The **chemical elements Germanium and Indium** were discovered in Freiberg
- The famous scientist and explorer **Alexander von Humboldt** studied in Freiberg
- Modern **library** with multifunctional space for students to interact and learn new skills

UNIVERSITY SPORTS CENTER

- Ideally situated on the green outskirts of Freiberg
- An approximately 2.5 hectare multi-sport facility with a stadium, athletics facility, beach and tennis courts, two sports halls
- A weight and cardio room exclusively for TU members for individual use
- Over 80 trainers supervise around 80–100 sports and health courses every week.
- Low prices for students: 15–50€ per course per semester
- Interactive competitions and events

UNIVERSITY CAREER CENTER

- Supports students on the way to finding a job
- Tailor-made offers, individual advice, preparation for job interviews and a strong network with companies
- A wide range of seminars, lectures, career events, job portal and application portfolio checks
- Training of soft skills and talent testing



APPLICATION



APPLICATION FOR ADMISSION

1. Bachelor's or Diplom program

You must apply for a Bachelor's or Diplom program via www.uni-assist.de. The application fee is 75 €.

German B1 must be proven at the time of application. Before starting the degree program, the language level C1 must be achieved through intensive German courses.

2. Master's program

To apply for a Master's program, please read the information: tu-freiberg.de/en/apply-master

There is no application fee. You must submit several application documents to the Admissions Office, e.g.:

- Certified copies of educational certificates (high school, Bachelor degree incl. Transcript of Records)
- English/German language proficiency certificate(s)
- If required: officially certified/attested translations of all application documents into German or English
- As well as further documents, depending on the desired degree program (see tu-freiberg.de/en/application)

APPLICATION DEADLINES FOR INTERNATIONAL APPLICANTS

Master's programs taught in English

- Program starts in winter semester: 01 January – 15 April
- Program starts in summer semester: 01 July – 15 October

Different application deadlines apply for the following Master's programs taught in English:

- Advanced Mineral Resources Development: Application deadline: 31 January – Further information: t1p.de/amrdmu
- Sustainable and Innovative Natural Resource Management (SINReM): see the program's website at sinrem.eu/admission-application

Master's programs taught in German

- Program starts in winter semester: 01 January – 15 September
- Program starts in summer semester: 01 July – 15 March

Bachelor's and Diplom degree programs (teaching language German)

If study preparation is required (Studienkolleg or study-preparatory German course):

- Program starts in winter semester: 01 March – 30 April
- Program starts in summer semester: 01 September – 31 October

If no study preparation is required:

- Program starts in winter semester: 01 March – 15 July
- Program starts in summer semester: 01 September – 15 January

"The orientation week was extremely successful and I am saying this based on the fact that I am completely new to Germany and Freiberg. However, with the help of orientation week events, I got to know many of the peer students of this intake. Additionally, with the help of the orientation week event, I have learned a lot about the university, the city of Freiberg and some great people working here at the university."



Ujjwal Kumar, first-year student on the Master's degree course in Computational Materials Science, winter semester 2023/2024



"I took a swim course in Freiberg and improved my skills. Thanks to the university sports centre, I paid only 17 euros for the whole semester." Jaffrey Hudson from India, Master Computational Materials Science

"I like the study conditions in Freiberg. I can always make an appointment with a professor. Most likely, he will be available."

Carole Tsegovog from Cameroon, Master Mechanical Engineering



SERVICES OF THE INTERNATIONAL CENTRE/ INTERNATIONAL OFFICE

The International Office focuses on the University's international activities. It is responsible for international relations, study abroad programmes and support services for international students.

"We warmly welcome all new international students. We appreciate your motivation and enthusiasm to study abroad and are aware of the difficulties that you may encounter especially at the beginning of your stay. We offer support when you need it. New international students can get a buddy assigned. He or she will help you during the initial phase. We assist you in finding accommodation in Freiberg. We want you to feel comfortable, work efficiently and achieve your study goals."

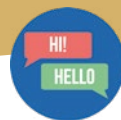
Dr. Julia Sishchuk, Director IUZ/International Office

We offer:

- Help during the application process
- A Buddy Program in cooperation with volunteer students
- Help in finding accommodation
- Welcome Point & Orientation Days
- During studies: free of charge language courses
- Support to study abroad at partner universities

More information:

[tu-freiberg.de/en/study/your-studies/
incoming-students-abroad](https://tu-freiberg.de/en/study/your-studies/incoming-students-abroad)



SERVICES OF THE INTERNATIONAL CENTRE/ LANGUAGES

The IUZ/Languages offers intensive German courses that prepare for studying in German language. The courses cover the levels B2 and C1 and are designed for the DSH examination ("Deutsche Sprachprüfung für den Hochschulzugang"). Each intensive course has a duration of around 8 weeks and is subject to a fee in the amount of €1,250.

Please note that the course fee is expected to increase by 200 € by the winter semester 2024.

German language courses during the semester are free of charge for enrolled students. Available levels range from A1 to B2, you can achieve one level in two semesters with four hours of instruction per week.

Among other courses, English, French, Spanish, Norwegian and Chinese are offered.

For more information on German preparatory courses including fees please visit our website at:
tu-freiberg.de/en/german-courses



SERVICES



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