



From Deep Sea to Space

Study at Technische Universität Bergakademie Freiberg in Germany!





The City of Freiberg

40,485 inhabitants (status: December 2022) a internet





The City of Freiberg

Freiberg is part of the UNESCO World Heritage Region "*Montanregion Erzgebirge/ Krušnohoří*"



The Mineral Exhibition terra mineralia in Castle Freudenstein



The most beautiful mineral specimens from all over the world have been collected for this unique mineral collection. *terra mineralia* offers a mineralogical journey around the world with more than 3.500 mineral specimens from famous sites in Europe, Asia, Australia, Africa and America.



About TUBAF – Foundation



The "Bergakademie Freiberg" was founded in 1765 as a higher educational institution for mining and metallurgy.

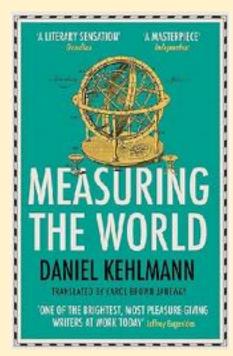
Today, TUBAF is worldwide the oldest school of mining that existed continuously.



Famous People at TUBAF

The natural scientist **Alexander von Humboldt (1769 – 1859)** studied mining engineering in Freiberg

> Tip for literature: (sold 6 million times worldwide, translated into 40+ languages)





Alexander von Humboldt in Freiberg



Inventions of Scientists at Bergakademie Freiberg

 The chemical elements *Indium* (Ferdinand Reich und Theodor Richter, 1863) and *Germanium* (Clemens Winkler, 1886) were discovered in Freiberg





 August Wilhelm Lampadius (1772 – 1842): First gas technology to light up the streets at night on the European continent (after England)

Germanium

Replica of Lampadius' gas-powered street lighting

TUBAF Today – Facing the Challenges



Examples of current research projects:

- **Mining Engineering:** Sustainable raw materials extraction, Raw materials from mining dumps, Water treatment in post-mining landscapes
- **Process Engineering:** Green Fuels, Environmentally friendly mining of high-tech elements
- **Experimental physics:** High-efficiency battery storage
- Economics: Circular Economy, Energy and Resource Management
- Chemistry: Selective extraction of electronic valuable materials from fly ash, Refining sewage sludge into high-quality phosphoric acid



Task: Cutting solid rock under water



Cutting test rig at TUBAF: A water filled box with rock material, the green cover is for splashback



Bulk cutter for mining deep-sea seafloor massive sulfides; source: Nautilus Minerals



Round chaft chisel while cutting rock under water



Task: Lifting material from great depths in the ocean (more than 3,000 m)





Design and parameters of the

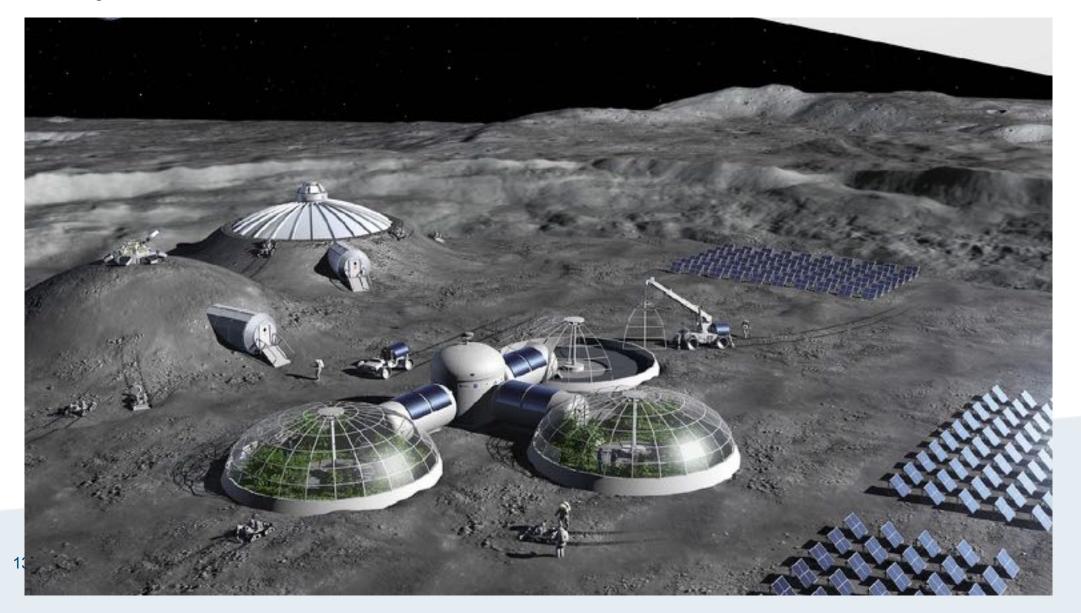
laboratory airlift

The designed construction of an laboratory airlift, installed underground in the experimental mine "Reiche Zeche" in Freiberg.



Bachelor Program "Space Resources"

Starting in winter semester 2024/2025





TUBAF – Profile

- The study profile is divided into the fields of natural sciences, earth sciences, engineering sciences, materials research and economics.
- Teaching is characterised by **practical orientation** (internships, work in the laboratory and on test rigs).



TUBAF – Facts and Numbers

Degree Programs (status 15 October 2023)

- 68 degree programs
- 3 types of degrees: Bachelor, Master, Diplom

Students (status: 01 November 2023)

4.215 students

Graduates (academic year 2022/2023)

604 graduates

Semester fee

94€





International Students

4.215 Students 55 % From Abroad



TUBAF in University Rankings

QS World University Rankings by subject

Category "Mineral & Mining Engineering"

18th worldwide

CHE-Ranking 2022/23 (for Germany): Students of Mechanical Engineering, Process Engineering, Materials Science and Business Administration state very good to good study conditions at TUBAF.

Center for World University Rankings

Among the top 10% in terms of research performance in 2023



The students gave particularly good marks in the categories *Organization of Studies* and *Learning in Small Groups*.



TUBAF – Structure: 6 Faculties

Faculty of Mathematics and Computer Science (F. 1)



Faculty of Chemistry and Physics (F. 2)



Faculty of Geosciences, Geoengineering and Mining (F. 3)



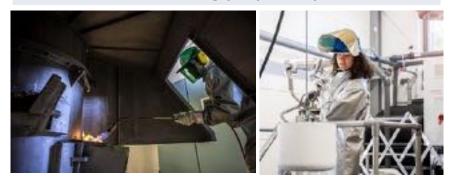


TUBAF – Structure: 6 Faculties

Faculty of Mechanical, Process and Energy Engineering (F. 4)



Faculty of Materials Science and Technology (F. 5)



Faculty of Business Administration (F. 6)





Choose a Study Program

- Currently, TUBAF offers 68 degree programs (type of degree: Bachelor, Master or Diplom)
- 13 Master's programs are taught in English



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Alachlus Studiongang				5	iprocha
Additive Manufacturing (technology, material, design)				DB	
Advanced Components: Materials for Mobility				DE	
Advanced Materials Analysis				Eŀ	4
Neth Advanced Mineral Resources Development				EN	4
Applied Computer Science				DE	
Applied Computer Science				DF	
NpL Applied Mathematics				DB	
Applied Natural Science				DE	
Max. Applied Natural Science				DE	/ EN
Automotive Construction: Materials and Components				DB	
Peer Business Administration				DE	
n-k Business Administration				DE	
Business Administration for Resource Management				DE	

Qualification for Admission



German courses offered at TUBAF; "conditional admission" required





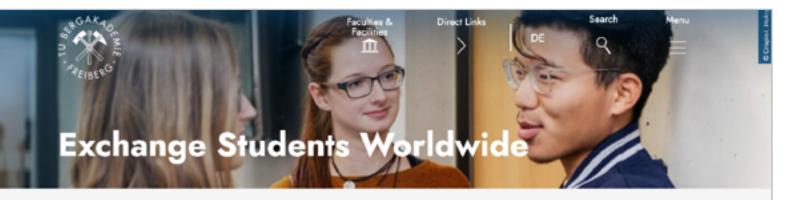
Application





Exchange Studies for max. 2 semesters without achieving a degree

- English level B2 required (IELTS, TOEFL certificate required)
- Select modules that can be recognized for your studies at your home university
- Application deadlines: Study start winter semester: 30 April, summer semester: 31 October



Home / Study / Before Studies / Incoming Students from Abroad / Application / Exchange Students Worldwide

Application

Students from a partner university of the Technische Universität Bergakademie Freiberg (TUBAF) have to apply online. Please fill in the <u>application form of the application portal Mobility Online</u> **C**.



https://tu-freiberg.de/en/international/exchange



Visa and evidence of adequate financial resources to study in Germany

"From 1 January 2023, the presumed annual requirement that must be paid into the blocked account when applying for a visa amounts to **11,208 euro**.

The account may only permit the withdrawal of a certain amount per month (for students this is currently 934 euro)."

Source: German Federal Foreign Office https://www.auswaertiges-amt.de/en/sperrkonto/388600





Life in Freiberg



Around 1.000 Places in Dormitories Available





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Die Zer WG

Die 4er WG





Prices between 235 and 380 € per month

IGLIM BILL

Die klassische WG Form mit Gemeinschaftsküche und gemeinsamer Badnutzung für 4 Personen.

Wohnanlage Winklerstraße - Haus 12			
Wohnanlage Winklerstraße - Haus 12		Sea Alleinnutzung	
	Koslen		
	Miele pro Person	255.€	
	Ausstattung.		
	Gemeinschaftskuche	eigenes 3ad	
	Grundausstattung	>	
	Ansprechpartner	>	
	Standort anzeigen	>	



Die Ser WG

Die Ber WG





Die 4er WG



Clubs and Societies

































Sports Courses







Sports Courses

- 40+ sports courses
- 80+ dedicated exercise leaders
- 800 to 1,200 athletes
- A 2.5 hectare multi-sports facility with stadium, athletics track, beach and tennis courts, two sports halls and a weight and cardio room for individual use

Website: https:// www.tubaf.plus

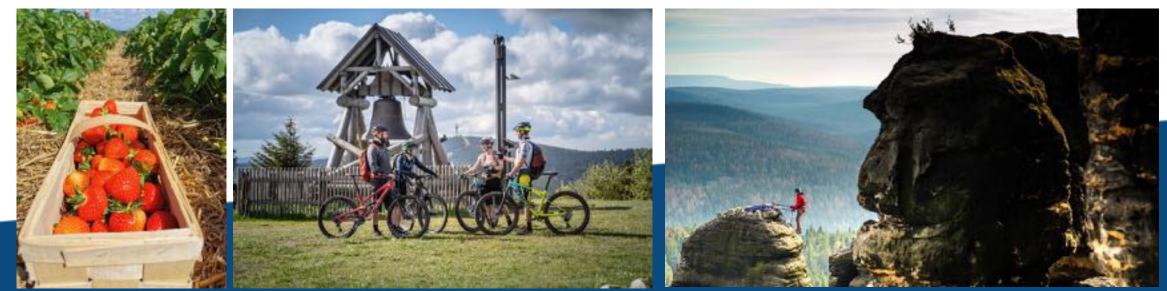




Activities to Clear the Head

The area is ideal for outdoor activities: **Hiking, climbing or cycling** in the low mountain ranges "Elbsandsteingebirge" ("Elbe Sandstone Mountains") as well as "Erzgebirge" ("Ore Mountains") or simply in the surrounding area of Freiberg with pretty villages and castles and palaces worth seeing







Vivid City of Freiberg – Tourism and Festivals





Silberstadtbahn



Grube "Alte Elisabeth"



Nacht der Wissenschaft



TUBAF – Social Media

 TU Bergakademie Freiberg TUBAF Studenten
@TU_Bergakademie_Freiberg
@TUBergakademie TU Bergakademie

#tubaf #bergakademie







We thank you for your attention! Do you have questions?



#tubaf