



Montanuniversität
Leoben

MASTER OF SCIENCE IN

Applied Geosciences

Do you want to drive sustainable change?

Providing low carbon energy resources and critical raw materials for the energy transition plays an outstanding role in the fight against climate change. That's why the master's degree programme in Applied Geosciences teaches you interdisciplinary knowledge in the field of mineral resources and environmental protection.

The modular structure of the study program allows for specialization in one of three focus areas: GeoEnergies, Applied Geophysics and Economic, Environmental, and Technical Geology.

As a graduate you are prepared for a national and international career in the fields of mining, raw materials and resources exploration, in geophysics, construction, recycling, research, consultancy, universities as well as independent engineers and consultants. Giving you the opportunity to lead the world into a sustainable future.

Move mountains

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MASTER'S PROGRAMME

Applied Geosciences

PROGRAMME STRUCTURE | 120 ECTS

1st Semester (30 ECTS)

Advanced Geochemistry	4 ECTS
Data Analysis in Geosciences	3 ECTS
Geoscience Topics Review	3 ECTS
Elective Courses in the following focus areas	20 ECTS
GeoEnergies: Geological Modelling, Reservoirs	
Applied Geophysics: Advanced Borehole Geophysics, Mineral Exploration	
Reservoir Engineering Fundamentals	
Economic, Environmental, and Technical Geology: Applied Mineralogy, Mining Engineering	

2nd Semester (30 ECTS)

Elective Courses in the following focus areas	30 ECTS
GeoEnergies: Sedimentology, Mineralogy, Reflection Seismology	
Applied Geophysics: Stratigraphy, Reflection Seismology, Numerical Methods	
Economic, Environmental, and Technical Geology: Economic Geology, Field Courses, Ore Deposits	

3rd Semester (30 ECTS)

Elective Courses in the following focus areas	30 ECTS
GeoEnergies: Hydrogeology, Geothermal Systems, Carbon and Hydrogen Storage	
Applied Geophysics: Geophysical Reservoir Characterization, Inverse Problems, Field Courses	
Economic, Environmental, and Technical Geology: Hydrogeology, Mineral Exploration	
Economic, Environmental, and Technical Geology: Economic Geology, Field Courses, Ore Deposits	

4th Semester (30 ECTS)

Master Thesis	30 ECTS
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For programme details and registration follow the link.



04/2025