



Montanuniversität
Leoben

INTERNATIONAL MASTER OF SCIENCE IN

Applied and Exploration Geophysics

Do you want to explore the Earth's hidden layers?

Geophysical methods of subsurface characterisation are crucial to civil engineering, mineral exploration, geothermal energy development and CO₂ storage. That's why the International Master of Applied and Exploration Geophysics (IMAGE) offers you knowledge in natural sciences and engineering to train you in designing geophysical surveys and analyse data using state-of-the-art algorithms.

The first two semesters are completed at the Technical University of Leoben (Austria) followed by a third term at Università di Pisa (Italy). The programme is taught in English to promote an international perspective. As a graduate you are well equipped to work in geophysics service companies, in the mining and energy resource industry and in national geoscience agencies. Where you will shape the world by exploring it.

Move mountains

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MASTER'S PROGRAMME

Applied and Exploration Geophysics

PROGRAMME STRUCTURE | 120 ECTS

1st Semester (30 ECTS)

Data Analysis in Geosciences	3 ECTS
Digital Signal Processing	3 ECTS
Integrated Field Course	6 ECTS
Advanced Borehole Geophysics	4 ECTS
Geological Modelling	3 ECTS
Mineral Exploration Geophysics	2 ECTS
Induced Seismicity	2 ECTS
Programming in Python	5 ECTS
Electives	2 ECTS

2nd Semester (30 ECTS)

Reflection Seismology and Data Processing	6 ECTS
Geophysical and Geochemical Field Project	4 ECTS
Reservoir Rocks	3 ECTS
Sequence Stratigraphy	3,5 ECTS
Basin Evolution and Sedimentary Environments	4,5 ECTS
Electives	9 ECTS

3rd Semester (30 ECTS)

Inverse Problems	6 ECTS
Rock Physics	6 ECTS
Machine Learning in Geophysics	3 ECTS
Radar Geomorphology	6 ECTS
Geophysical Instrumentation and Potential Fields	6 ECTS
Electives	3 ECTS

4th Semester (30 ECTS)

Master Thesis	30 ECTS
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For programme details and
registration [follow the link.](#)

04/2025