Faculty of Geology, Geophysics and Environmental Protection

AGH University of Science and Technology

1913

Faculty 64 years
The Faculty of Geology, Geophysics & Environment Protection is the only technical-university-level state institution in Poland which educates in applied Earth sciences and environment protection, and one of a few which educates in environmental engineering and applied computer science.
Faculty structure

- Department of General Geology, and Geotourism
- Department of Mineralogy, Petrography and Geochemistry
- Department of Economic Geology
- Department of Hydrogeology and Engineering Geology
- Department of Environmental Analyses & Mapping
- Department of Fossil Fuels
- Department of Geophysics
- Department of Geoinformatics and Applied Computer Science
- Department of Environmental Protection

- Library
- Main Laboratory
- Museum
The Faculty of Geology, Geophysics and Environmental Protection employs prominent didactic staff: 52 independent researchers make their scientific research in 9 departments.

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<tbody>
<tr>
<td>Full professors</td>
<td>22</td>
</tr>
<tr>
<td>Associate professors</td>
<td>39</td>
</tr>
<tr>
<td>PhD and PhD eng.</td>
<td>87</td>
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<tr>
<td>Junior lecturers</td>
<td>15</td>
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<tr>
<td>Senior lecturers</td>
<td>8</td>
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4000 students
7 fields, subdivided to
26 specializations

First level - B.Eng.  
Second level - M.Sc

PhD study – 92 students
practices

ZG Rudna Mine
USA, Australia, Mongolia, PR China, DRLao, Peru, Canada, RPA, Botswana, Algeria, Russia, Vietnam & almost all European countries.
INFRASTRUCTURE

LECTURE ROOMS  23

DIDACTIC LABORATORIES  12

COMPUTER CLASSROOMS AND LABORATORIES  10
The Faculty library is a part of the AGH US&T uniform library information system.

**SQUARE FOOTAGE**  
440m²

**COLLECTION**

- BOOKS  ~ 30 000 volumes
- JOURNALS  ~ 8 300 volumes
- MAPS  ~ 4 100 sheets
DEPARTMENTS: didactic laboratories
research laboratories

THE FACULTY: Main Laboratory
Geotechnical Laboratory
Faculty of Geology, Geophysics and Environmental Protection

Laboratories:

- electron scanning microscopy EDS
- X-ray and X-ray fluorescence
- infrared spectroscopy and Raman
- analysis of granulation and textural attributes
- thermal analysis
- biogeochemical analysis
- ore petrography lab.
- critical elements Lab. WDS
- organic matter geochemistry lab.
- geotechnical lab.
- organic matter lab.

www.agh.edu.pl
The Faculty has very modern equipment, which enables carrying out research at international level.
Critical Elements laboratory
AGH - KGHM PM S.A.

JEOL Super Probe 8230
JEOL Super Probe 8230 specification:

- 5 spectrometers (WDS) equipped with 12 crystals (LIF, LIFL, LIFH, TAP, TAPH, PETL, PETH, PETJ, LDE1, LDE2, LDE3)
- X-ray energy radiation dispersion spectrometer (EDS)
- reflected light observations
- transparent light observations
- cathodoluminescence
- WDS and EDS sample „mapping”
- carbon sputter – QUARUM Q150TE
Renewable Sources of Energy campus, Mi•kinia
The Faculty has received a Category 1 rating under the State Committee for Scientific Research classification.

This is the highest category in scientific research.
RESEARCH
Geology and Geophysics

- Information Technologies:
  - Computer Science

- New Materials and Technologies
  - Nanotechnologies
  - Materials Science and Materials Technologies
  - Geoengineering

- Environment and Climate Changes
  - Environmental Engineering
  - Environmental Protection
  - Natural Resources and Waste Management
  - Balanced Development

- Energy and its Supplies
  - Energy Technologies
  - Renewable Sources of Energy

- Economic geology
  - Prospecting and evaluation of mineral deposits
  - Management of Energy Resources
  - Oil and Gas Engineering
Seventh Framework Programme (FP7) 2009-2015 GENESIS

Groundwater and dependent ecosystems: new scientific basis on climate change and land-use impacts for the update of the EU Groundwater Directive
Environmental Engineering and Protection:

- heavy metals in soil, water, sediments and wastes - sampling and analysis;

- geostatistical and spatial (GIS) evaluation of the pollution;

- stone decay in historical and modern buildings: symptoms, mechanisms, treatment, replacement;

- inventory and valorisation of objects of inanimate nature; formal actions on protection of geological heritage of the Earth.
Thank you for your attention

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