



DESCRIPTION

Geomatics for Mineral Resource Management focuses on the process of resource modelling and mine management. Students will be taught in a variety of subjects related to the field mining and mineral resources. This includes financial, environmental, political as well as the legal aspects of national and international mining projects. In addition to the standard courses taught by staff from partner universities and industry experts, massive open online courses (MOOC's) are offered for the students. The MOOC's consist of a series of web-videos, which cover the content of an individual course.

The educational content focuses on the following pillars: (1) Sensing technologies for mine data gathering, (2) Spatial (big) data management and visualisation and (3) Spatial (big) data analysis and modelling. The aim of the programme is to enable students to integrate these three pillars into innovative Geomonitoring concepts.

Students, who decide on the specialisation Geomatics for Mineral Resource Management, are, on default, set to study 2 semesters at Wrocław University of Science and Technology (1st and 4th semesters) and 2 semesters at TU Bergakademie Freiberg in Germany or two semesters at Montanuniversität Leoben in Austria (2nd and 3rd semesters) and are going to graduate with a double MSc diploma.

ABOUT STUDIES

- » **Duration:** 4 semesters
- » **Mode of study:** Full time
- » **Language of instruction:** English
- » **Start date:** February 2022
- » **Programme coordinator:**

Jan Blachowski Ph.D., D.Sc., Prof. (at WUST)
 jan.blachowski@pwr.edu.pl

Jörg Benndorf Ph.D., D.Sc., Prof. (at TUBAF)
 joerg.benndorf@mabb.tufreiberg.de

Alexander Tscharf Ph.D. (at MUL)
 alexander.tscharf@unileoben.ac.at

? **Questions?** Please contact the Admission Officers e-mail: admission@pwr.edu.pl,
 phone: +48 71 320 37 11, +48 71 320 31 70, +48 71 320 37 19, +48 71 320 44 39

JOB PROSPECTS

Thus graduate of this master program will be prepared to work in an international and multicultural environment in mining and exploration companies, technical supervision authorities, public administration offices, research and development institutions, everywhere where advanced and state of the art Interdisciplinary knowledge of mining and geology, computer aided design, geomatics are required.

ENTRY INFORMATION

Requirements: the programme is meant for holders of a Bachelor's Degree in Mining and Geology as well as a Bachelor's Degree in Geodesy and Cartography or related engineering disciplines.

Each application is assessed individually on its merits. If in doubt, please contact an Admission Officer, e-mail: admission@pwr.edu.pl

- » **Deadline for application:**
 Non-EU/EFTA students see:
www.admission.pwr.edu.pl
 EU/EFTA students see:
www.rekrutacja.pwr.edu.pl
- » **English:**
 Equivalent of minimum TOEFL IBT – 87 points or 6.5 points IELTS. List of accepted language certificates can be checked online.
- » **Tuition fee:**
 Non-EU/EFTA students: **2000 EUR** per semester
 EU/EFTA students: **no tuition fee**
- » **Application fee:**
 Non-EU/EFTA students see:
www.admission.pwr.edu.pl
 EU/EFTA students see:
www.rekrutacja.pwr.edu.pl

CONTENT

Knowledge will be provided in the form of lectures, tutorials, laboratories, computer labs, project works and seminars.

SEMESTER 1 (WUST)

- » Principles and Application of InSAR and GIS in Mining
- » Computer Aided Geological Modelling & Geostatistics
- » Project Management, Appraisal and Risk Evaluation
- » Engineering Geophysics
- » Integrated Analysis of Deformations in Geomechanical Engineering
- » Occupational Health and Safety
- » Foreign language
- » Elective course

SEMESTER 2 (TUBAF)

- » Applied Remote Sensing in Geosciences
- » Underground Mine Surveying
- » Geomonitoring
- » Operations Management
- » Geomodelling – Geostatistics for Natural Resource Modelling
- » Foreign language

SEMESTER 3 (TUBAF)

- » Special Topics Geokinematics
- » Applied Spatial Data Analysis and Modelling - Case Study
- » Geomatics for Mineral Resource and Reserve Management
- » Reclamation
- » Human Resources Management & Organizational Behaviour
- » Elective courses

SEMESTER 4 (WUST)

- » Master's Thesis
- » Diploma Seminar

