



**Faculty of Mining, Geology and Civil  
Engineering, Tuzla**

# Faculty of Mining, Geology and Civil Engineering

5 departments:

Mining

Geology

Civil Engineering

Petroleum Engineering

Safety and Health  
Administration

1300 students





**Faculty of Mining, Geology and Civil Engineering was established as the Faculty of Mining in 1960.**

**With the establishment of the Department of Geology in 1973 The Faculty of Mining was renamed the Faculty of Mining and Geology.**



**At the end of 1976 was founded the University of Tuzla. The Faculty becomes a member of the University of Tuzla. Until then, the Faculty was a member of the University of Sarajevo.**

**With the establishment of the Department of Civil Engineering in 1998 The Faculty of Mining and Geology was renamed the Faculty of Mining, Geology and Civil Engineering.**



**Department of Petroleum Engineering was established in 2000, and Department of Safety and Health Administration in 2004, so that today a scientific and educational activities of Faculty is organized in five departments: Mining, Geology, Civil Engineering, Petroleum Engineering and Safety and Health Administration.**



**University of Tuzla**  
**Faculty of Mining, Geology and Civil Engineering**

**Dean's Office**  
**Dean**  
**Vice-Dean for Academic Affairs**  
**Vice-Dean for Science and Research**

**Sub-units for scientific and educational activities**

**DEPARTMENTS**

Mining

Geology

Civil Engineering

Safety and Health

Petroleum Engineering

**Students' Office**

**Scientific fields**

Underground Mining

Surface Mining

Mineral processing, Transportation in Mining and Materials

Geo-Environmental Engineering

Petroleum Engineering

Geology

Mineralogy and Petrology

Geological Engineering

Safety and Health Administration

Mechanics, geomechanics and Geotechnical Engineering

Survey, Engineering graphics and Numerical modelling

Hydrogeology and Hydraulic Engineering

Building Structures

Building engineering, Transportation Engineering and Management

Geophysics

**Sub-units for science, research and artistic works**

**LABS, WORKSHOPS AND CLUBS**

Laboratory for receipt and preparation of samples (LAB 1)

Laboratory for Mineral Processing and Material Testing (LAB 2)

Laboratory for Natural Hazard and Geoenvironmental Research (LAB 3)

Laboratory for Geomechanics (LAB 4)

Laboratorija za ispitivanje buke (LAB 5)

Laboratory for Optical Research of Mineral and Rocks (LAB 6)

Laboratory for Mining Survey and Geodesy (LAB 7)

Laboratory for Engineering Graphics and Numerical Modelling (LAB 8)

Laboratory for Anchor Testing (LAB 9)

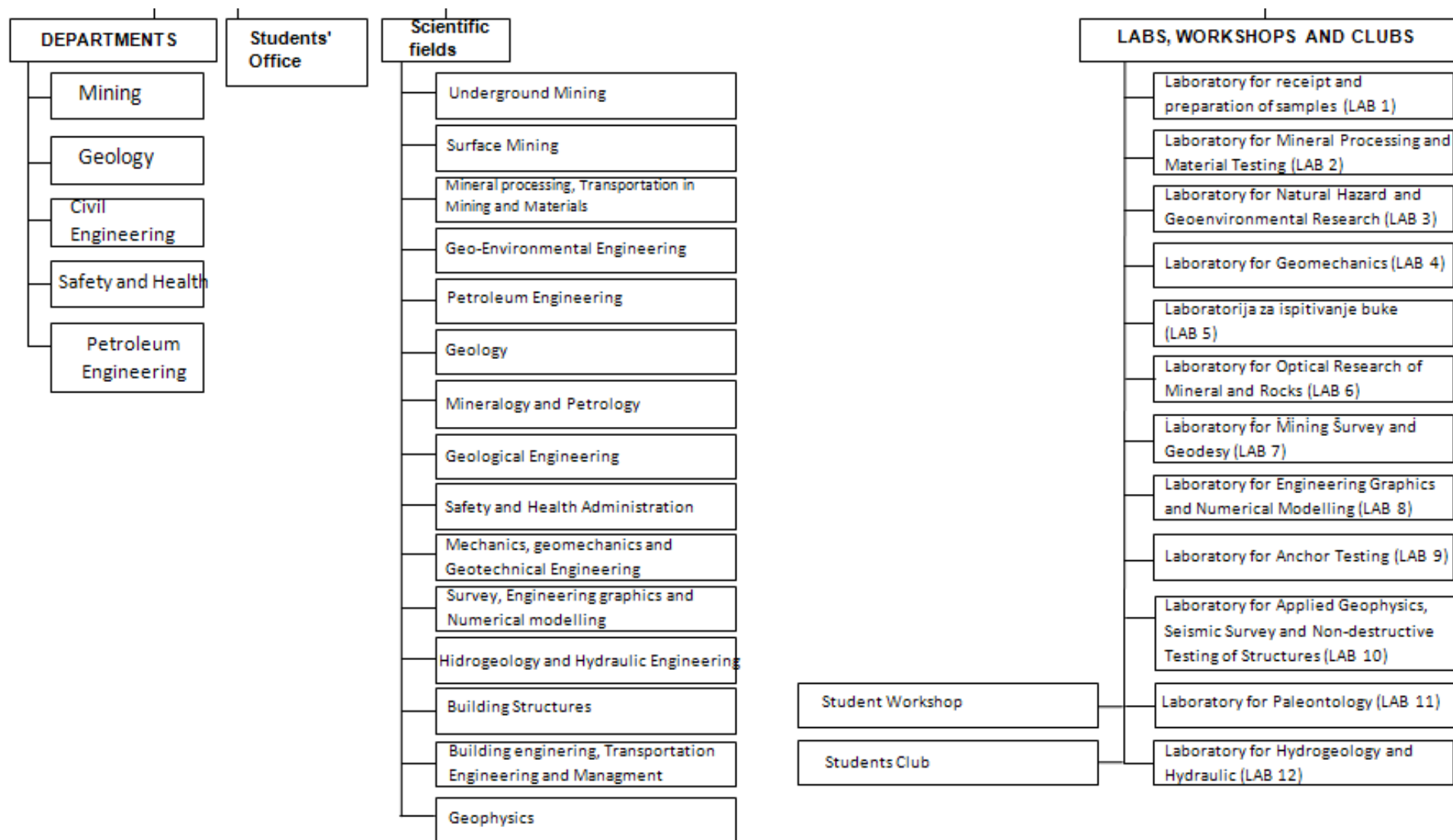
Laboratory for Applied Geophysics, Seismic Survey and Non-destructive Testing of Structures (LAB 10)

Laboratory for Paleontology (LAB 11)

Laboratory for Hydrogeology and Hydraulic (LAB 12)

Student Workshop

Students Club







**Education and research activities are organized into 15 departments (scientific fields):**

- **Underground Mining**
- **Surface Mining**
- **Mineral Processing, Transportation in Mining and Materials**
- **Geo-Environmental Engineering**
- **Petroleum Engineering**





**Education and research activities are organized into 15 departments (scientific fields):**

- **Applied Geophysics**
- **Geology**
- **Mineralogy and Petrology**
- **Geological Engineering**
- **Safety and Health Administration**



**Education and research activities are organized into 15 departments (scientific fields):**

- **Mechanics, Geomechanics and Geotechnical Engineering**
- **Survey, Engineering graphics, and Numerical Modelling**
- **Hydrogeology and Hydraulic Engineering**
- **Structures**
- **Building engineering, Transportation engineering and Construction Management**



- **2900 students graduated**
- **completed 300 master's thesis**
- **completed 115 doctoral thesis**

**Three teachers were selected to regular members of the Academy of Sciences and Arts of Bosnia and Herzegovina:**

- **Professor Ivan Soklic, Geology**
- **Professor Mehmed Ramovic, Geology**
- **Professor Enver Mandzic, Mining**

# Academic Staff Employed



Professor	Mining	5	8
	Geology	3	
Associated Professor	Mining	14	22
	Geology	6	
	Civil Engineering	1	
	Electrical Engineering	1	
Assistant Professor	Mining	5	15
	Geology	5	
	Civil Engineering	4	
	Geotehnology	1	
Higher assistant	Civil Engineering	3	3
Labor Staff	Geology	1	1
Summ			49



## Teaching Staff from other universities and Experts from Industry:

**Professor 14**  
**Associated Professor 22**

**Assistant Professor 6**  
**Higher Assistant 4**  
**Assistant 5**  
**Experts 3**



**Since 2008 the faculty began with undergraduate studies (240ECTS) conformed to the Bologna Declaration and in 2012 will start graduate (60ECTS) and postgraduate (doctoral) (180ECTS) university studies.**

## Number of students in the last five years



	2006/07	2007/08	2008/09	2009/10	2010/11	Summ
Mining	138	145	144	159	196	<b>782</b>
Geology	117	119	136	166	189	<b>727</b>
Civil Engineering	246	285	375	451	507	<b>1864</b>
Petroleum Engineering	68	72	91	124	161	<b>516</b>
Safety and Health Administration	123	183	203	211	262	<b>982</b>
<b>Summ</b>	<b>692</b>	<b>804</b>	<b>949</b>	<b>1111</b>	<b>1315</b>	<b>4871</b>

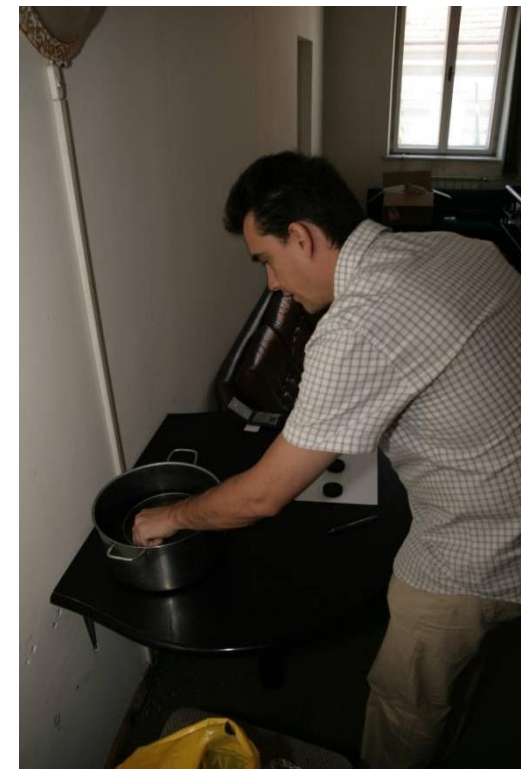


**Science and  
Research**



**Partly equipped  
laboratories**

## **LAB 2 – Laboratory for Mineral Processing and Material Testing**



**Science and  
Research**



**Newly equipped  
laboratories**

## **LAB 3 – Laboratory for Natural Hazard and Geoenvironmental Research**



**Science and  
Research**



**Partly equipped  
laboratories**

# **Mechanics, Geomechanics and Geotechnical Engineering**

## **Projects**

Geotechnical elaborates,  
projects and reports:

- FOUNDATION ENGINEERING
- LANDSLIDES
- SLOPE STABILITY ANALYSIS
- RETAINING STRUCTURES
- UNDERGROUND STRUCTURES
- MINING SUBSIDENCE
  
- LABORATORY SOIL AND ROCK TESTING
- GEOTECHNICAL FIELD TESTING



**1. Geotechnical field  
observation**

**2. Geotechnical in situ  
testing**



**2. Geotechnical field  
research - testing**



**4. Geotechnical  
boreholes - investigation**



**Science and  
Research**



**Partly equipped  
laboratories**

## **LAB 4 – Laboratory for Geomechanics**



**1. Classification testing of soil  
and rock**



**2. Shear strength soil testing**



**3. Deformability of soil**



**4. Strength of rock**



**5. Deformability of rock**

**Science and  
Research**



**Newly equipped  
laboratories**

## **LAB 6 – Laboratory for Optical Research of Mineral and Rocks**





**Science and  
Research**



**Newly equipped  
laboratories**

## **LAB 7 – Laboratory for Mining Survey and Geodesy**



**Science and  
Research**



**Partly equipped  
laboratories**

## **LAB 8 – Laboratory for Engineering Graphics and Numerical Modelling**





**Science and  
Research**



**Newly equipped  
laboratories**

## **LAB 10 – Laboratory for Applied Geophysics, Seismic Survey and Non-destructive Testing of Structures**



**Science and  
Research**



**Labs in the  
preparation**

**LAB 5 – Laboratory for Testing of Noise**

**LAB 9 – Laboratory for Anchor Testing**

**LAB 11 – Laboratory for Paleontology**

**LAB12 – Laboratory for Hydrogeology and Hydraulic**

**Science and  
Research**



**Implemented  
Scientific projects  
and Expertise**

**Educational and intervention center for aerology,  
natural hazards, safety and ecology in the mining  
(WUS-CEP) program**

**Tempus** Phare Joint European Project Nr. AC-JEP-  
14377-1999: The curriculum and education in the  
field of soil ecology

**Science and  
Research**



**Implemented  
Scientific projects  
and Expertise**

**DAAD Project - Protecting the environment**

**Study of Regional Solutions for Small States Quality  
Assurance of Higher Education: Bosnia and  
Herzegovina, UNESCO, Department for Higher  
Education Paris;**

**Science and  
Research**



**Implemented  
Scientific projects  
and Expertise**

**Strengthening Higher Education in Bosnia and  
Herzegovina, The European Commission, Council of  
Europe**

**Feasibility Study on The Middle Bosnia and Tuzla  
Coal Mines for the Federation of Bosnia And  
Herzegovina;**

**Science and  
Research**



**Actual Scientific  
projects and  
Expertise**

**NATO SfP 983305 „ Development of a Monitoring System to Counter-manage the Risks of Subsidence Deformation on the Population of Tuzla“ 2009-2012**

**NATO SfP 983828 „Seismic upgrading of Bridges in South-East Europe by Innovative Technologies“ 2009-2013**



**Science and  
Research**



**Future Scientific  
projects and  
Expertise**

**-Researchs in the fields:**

**Durability of structures**

**Non-destructive evaluation of structures**

**Soil-structure interaction**

**Monitoring, analyses and mitigation measures  
of landslides**

**Geotechnical parameters of hard soil-soft rock**

**Determination of gold content in Lasva River**



**Science and  
Research**



**Future Scientific  
projects and  
Expertise**

**-Researchs in the fields:**

**Optimization of noise level production  
processes in the function of the application of  
ergonomic working and living environment in  
surface mining**

**Hydrogeological research of Spreca Faults**

**Water Managment**

**Fluid Tracing Studies**

**Environmental Impact of Abandoned Mines**

**Science and  
Research**



**Future Scientific  
projects and  
Expertise**

**-Researchs in the fields:**

**Major accidents in industry and mining,  
prevention, and the ability to respond**

**Geoenvironmental Risk Managment  
(ISO 31000:2009)**

**Rural development environment affected by  
mining works**

**Research of geothermal resources**

**Optimization of coal production in terms of  
using waste**

**Science and  
Research**



**Future Scientific  
projects and  
Expertise**

**-Researchs in the fields:**

**Research the possibility of production of  
materials from non-metallic minerals**

**Application of Finite element method in the  
analysis of anisotropic rocks**

**Numerical modeling of composite panels  
(masonry structures)**

# Software



**ADINA, GGU (Landslides), Sofistik, Tower, MAP INFO**

**Made at The Faculty:**

**REAME 2011**

**BISHOP**

**(Fortran, elastic and plastic analysis)**

**Education, Science and  
Research**



**International  
Cooperation**

- University of Kassel**
- Akademia Górniczo-Hutnicza, AGH, Krakow**
- Polytechnika Krakow**
- Technical University of Wroclaw**
- Mining Institute Moscow**
- Faculty of Mining, Miskolc, Hungary**
- Mining Institute USA**
- Mining Academy Freiburg, Germany**
- University Bologna, Italy**

**Education,  
Science and  
Research**



**International  
Cooperation**

- Faculty of Technical Sciences, Novi Sad**
- Faculty of Mining Geology, Belgrade**
- Faculty of Mining, Geology and Petroleum Engineering Zagreb**
- Institute IGH Zagreb**
- RWTH Aachen, Germany,**
- University Kaiserslautern, Germany**
- Institute IZIIS Skopje**
- Faculty of Civil Engineering, Tirana**
- Faculty of Civil Engineering, Osijek**

**Education,  
Science and  
Research**



**International  
Cooperation**

- Faculty of Civil Engineering, Sarajevo**
- Faculty of Mining Prijedor**
- Faculty of Technical Sciences Bihac**
- Faculty of Criminal justice and Security, Sarajevo**
- Ural State Mining University, Russia**
- Moscow State Mining University, Russia**
- Technical Faculty "Mihajlo Pupin" Zrenjanin**



## ➤ FIRST CYCLE (Bachelor studies)

### ❑ Study programs:

- Borehole Mining
- Geology
- Civil Engineering
- Mining
- Safety Engineering



## ➤ SECOND CYCLE (Master studies)

### ❑ Study programs:

- Mining (with orientations)
- Geology
- Civil Engineering (with orientations)
- Borehole Mining
- Safety Engineering



**THIRD CYCLE – DOCTORAL STUDIES** (in the preparation) 2016



# FACULTY OF MINING-GEOLOGY-CIVIL ENGINEERING

Scientific fields - Faculty of Mining, geology and civil engineering in Tuzla are:

- Underground mining of mineral resources
- Surface mining of mineral resources
- Mineral processing, transport and export of mining and materials
- Geoenvironmental engineering
- Well engineering
- Geology
- Mineralogy and petrology
- Geological engineering
- Security and assistance
- Mechanics of geomechanics and geotechnical engineering
- Geospatial information, engineering graphics and numerical modeling
- Hydrogeology and water engineering
- Building construction
- Building engineering, roads and construction management
- Applied Geophysics