# UNIVERSITETI - UNIVERSITY
# "ISA BOLETINI"
# MITROVICË

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| **Institution Name** | **UIBM** |
| **Faculty/Department** | **Geosciences/ Geology** |
| **Name of study program** | **Hydrogeology and Engineering Geology** |
| **Qualification level according to KQF** | **VII** |
| **Name of degree or academic degree** | **Master of Hydrogeology and Engineering Geology** |
| **ECTS** | **120** |
| **The minimum duration of the program** | **2** |
| **Number of students per year** | **15** |
| **Accredited program up to** | **2024** |

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| **Program objectives** | **Objective 1:** The development of laboratory techniques and hydrogeology numerical model to analyze and interpret hydrogeology geochemistry and groundwater systems<br>**Objective 2.** Describe the main hydro geochemical processes and parameters of groundwater in water-rock interaction environments (crystalline and sedimentary rocks).<br>**Objective 3:** Identify and explain groundwater pollution, measurements of parameters for the transport of pollutants, sources of pollution and their rehabilitation.<br>**Objective 4:** Develop technical rock parameters based on literature standards and comparisons and identify the basic rock types that an engineer can handle |
| **Learning outcomes of the program** | **1**. Students demonstrate a high level of proficiency in the general field of Hydrogeology and Engineering Geology.<br>**2.** Integrate and use hydrogeological data to explore and evaluate the type, number, and nature of aquifer systems.<br>**3.** Application of laboratory techniques and numerical hydrogeological model to analyses and interpret the hydrogeology and geochemistry of groundwater systems<br>**4**. Describe the main hydro geochemical processes and parameters of groundwater in water-rock interaction environments (crystalline and sedimentary rocks).<br>**5.** Identify and explain groundwater pollution, measurements of parameters for the transport of pollutants, sources of pollution and their rehabilitation.<br>**6.** Define different methods with different materials, how geophysics is used in the investigation of a hydrogeological and engineering site.<br>**7.** Know the technical parameters of rocks based on standards and literature comparisons and identify the basic types of rocks that an engineer can deal with. .<br>**8.** Understand surface geological processes and how they affect engineering studies and critically evaluate the use of rocks based on their technical properties<br>**9.** Understand, critically evaluate, and evaluate internal geological processes such as landslides, earthquakes and how they affect engineering studies |

| **Year I** | | | | | | |
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| **Semester I** | | | **Hours/week** | | | |
| Code | statute | Content | L | E | ECTS | **Professors** |
| 401. IIb | C | Scientific research methodology | 2 | 2 | 6 | Ahmet Tmava |
| 402. IIb | C | Engineering Geodynamics | 3 | 2 | 7 | Festim Kutllovci |
| 403. IIb | C | Applied Hydrogeology | 3 | 2 | 6 | Sabri Avdullahi |
| 404. IIb | C | Hydro-geochemistry | 2 | 2 | 6 | Flurije Sheremeti |
| 405. IIb | E | Foundations and their Consolidation | 2 | 2 | 5 | Zenun Elezaj |
| 406. IIb | E | Geophysical Well Logging | 2 | 2 | 5 | Afrim Koliqi |
| 407. IIb | E | Groundwater protection | 2 | 2 | 5 | Sabri Avdullahi |
| 408. IIb | E | Deposits of construction material | 2 | 2 | 5 | Sylejman Hyseni |
| 409. IIb | E | Geo-technics | 2 | 2 | 5 | Zenun Elezaj |
| **Semester II** | | | | | | |
| 410. IIb | C | Geological-engineering Design | 3 | 2 | 7 | Zenun Elezaj |
| 411. IIb | C | Groundwater Use | 3 | 1 | 6 | Sabri Avdullahi |
| 412. IIb | C | Technical Petrography | 3 | 2 | 7 | Flurije Sheremeti |
| 413. IIb | E | Project Management | 2 | 2 | 5 | Gani Maliqi |
| 414. IIb | E | Mining Hydrogeology | 2 | 2 | 5 | Sabri Avdullahi |
| 415. IIb | Z | Water Monitoring | 2 | 2 | 5 | Islam Fejza |
| 416. IIb | E | Sedimentary basins and hydrocarbons | 2 | 2 | 5 | Naser Peci |
| 417. IIb | E | GIS Applications | 2 | 2 | 5 | Naser Peci |
| 418. IIb | E | Environmental Geochemistry | 2 | 2 | 5 | Behxhet Shala |
| **Year II** | | | | | | |
| **Semester III** | | | | | | |
| 419. IIb | C | Neotectonics with Seism tectonic | 2 | 2 | 6 | Zenun Elezaj |
| 420. IIb | C | Water Wells | 3 | 2 | 7 | Sabri Avdullahi |
| 421. IIb | C | Applied geostatistics | 3 | 2 | 7 | Naser Peci |
| 422. IIb | E | Hydrogeology of Kosova | 2 | 2 | 5 | Sabri Avdullahi |
| 423. IIb | E | Geothermal Energy | 2 | 2 | 5 | Gani Maliqi |
| 424. IIb | E | Drilling and Injection | 2 | 2 | 5 | Zenun Elezaj |
| 425. IIb | E | Environment Mineralogy | 2 | 2 | 5 | Bedri Durmishaj |
| 426. IIb | E | Groundwater Modelling | 2 | 2 | 5 | Sabri Avdullahi |
| 427. IIb | E | Environment Protection | 2 | 2 | 5 | Behxhet Shala |
| **Semester IV** | | | | | | |
| 428. IIb | C | Field Practice | 6 | 0 | 10 | Sabri Avdullahi |
| | C | **Master Thesis** | | | **20** | |

| Cod | Status | Subject | Hours /Week | | | Professor |
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| **Year I** | | | | | | |
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