# Study program: GEOGRAPHY

Type and level of studies: Bachelor studies

Course name: GEOLOGY WITH PETROGRAPHY

Lecturer: Emin Memović

Status: Compulsory subject

# **ECTS: 7**

# Attendance prerequisites:

#### **Course aims**

Basic features of the Earth - internal structure, physical properties, and chemical composition, with emphasis on its lithosphere. Geochronology - Earth's age, Historical geology - stratigraphy, division of the Earth's history into eras, periods and epochs, determining the absolute and relative age of rocks.

## **Course Outcome**

## **Course Contents**

Theoretical part

Geology - the basic concepts of geology as a science, task and subject of study, connection with other sciences, Earth as a celestial body - Shape and dimensions of the Earth, main theories in cosmogony, Modern geotectonic theories - Tectonic plates, Classification of the lithosphere plates, causes and direction of their movement, possible relationships between plates (collision, subduction ...) as a cause of endodynamic processes and relief formation, Current examples, Earth endodynamics - Magmatic movements and volcanism, Types and arrangement of volcanoes on Earth as a consequence of geotectonic location, post-volcanic occurrences, Tectonic movements (epeirogenic and orogenic) as a consequence of the relationship of lithosphere plates, Seismic movements - causes, types and elements of earthquakes, measuring the strength of earthquakes and distribution of seismically active areas on Earth, Minerals, Igneous rocks - Mineral composition and compounds of important igneous rocks of the Earth's crust, their distribution and use, Sedimentary rocks - Surface decomposition, transport, sedimentation and diagenesis, as phases in the process of the formation of sedimentary rocks, Composition and structure of sedimentary rocks, distribution and use, Metamorphic rocks - Types of metamorphism, mineral structure and composition of metamorphic rocks, formation, distribution and use, Geological maps. Practical part

# Properties of petrogenic and ore minerals - macroscopic identification of the most essential petrogenic and ore minerals based on physical properties, their role as components of rocks and ore deposits, Determination of rocks - structure, texture and mineral composition of igneous, sedimentary and metamorphic rocks, classification, distribution and application, Geologic map analysis.

Number of active	Theoretical o	Theoretical classes: 3		ије, Завод за уџбенике, Београд Practical classes: 2	
classes					
Teaching methods lectures	s, exercises, consu	ltations, term tes	t(s), term papers	•	
	Assessment (ma	aximum 100 poi	nts)		
Course assignments	Points	Final exam		points	
activity during lectures	10	written exam		50	
practical classes		oral exam			
term test(s)	25				
term paper (s)	15				