Study programme: Bachelor with honours in Geography Teaching, Bachelor with honours in Geography

Coursle title: Hydrogeology DG303

Teacher(s): dr Dragoslav Pavić, dr Branko Ristanović

Status: elective

# ECTS: 6

### Recuirements: attended lectures from the courses General Geology with Mineralogy and Hydrology

### Learning objectives

Acquisition of knowledge related to hydrogeological terms, conditions of groundwater occurrence and features and defining main laws on processes and phenomena in the underground hydrosphere.

### Learning outcomes

Acquired knowledge on hydrogeological terms, conditions of groundwater occurrence and their features and qualifications for causal understanding of problems regarding laws within processes and phenomena in the underground hydrosphere. Understanding the concept of importance of groundwater for human life and the need for its protection and rational use.

# Syllabus

*Theoretical part*: Topics and tasks of hydrogeology. Water cycle in nature and water balance. Ground water and its origin. Hydrogeological features of rocks and conditions for groundwater occurrence. Feeding and movement of groundwater. Types and features of aquifer. Deep thermal and mineral waters. Physical and chemical features of groundwater. Types and features of springs. Importance of ground water. Exploitation of groundwater.

*Practical part:* Conditions for groundwater occurrence. Methodology of hydrological annals use and statistical processing of data related to groundwater. Methodology of studying the aquifer regime. Methodology for measuring the spring flow. Seminar paper preparation. Fieldwork.

#### Literature

- 1. Todd, D.K., Mays, L.W. 2005. Groundwater Hydrology. John Willey and Sons.
- 2. Davie, T. (2008): Fundamentals of Hydrology. Second Edition. Taylor&Francis Group.
- 3. Pavić, D., Mészáros, M., Ćurčić, G. 2012. Main Characteristics of Water Regime of the Phreatic Aquifer in Subotica Municipality (Vojvodina, Serbia). *Geographica Pannonica*, *16*(4): 136–144.

Weekly teaching load: 4 (60)	Lectures: 3	Exercises: 1	
Methods of Teaching		· · · ·	
Lectures, Illustration and Demonstration	on, Fieldwork.		
Grading method (maximu 100 points	s)		
Pre-examination assignments	points	Final examination	points
Activities during lectures	0-5	Written examination	
Activities during exercises	0-5	Oral examination	30-45
Colloguia	20-40		
Seminar paper	0-5		