Study Program: GEOGRAPHY

Type and level of studies: Bachelor studies

Course name: HYDROLOGY

Lecturer: Dragan Radovanović

Status: Compulsory

ECTS: 7

Attendance prerequisites:

Course aims

Familiarizing students with all forms of water on Earth, their origin and evolution, basic chemical and physical properties, movement and diversity. Additionally, the course aims to present all forms of water use, the crucial water management problems, and water resources protection. In this way, students should acquire knowledge about the hydrosphere, one of the four macro components of the Earth's mantle, in its entirety.

Course outcome

Course content

Theoretical part

Introduction - Subject of study and division of hydrology, Chemical and physical properties of water, Water balance, The amount of water on Earth and its distribution, Groundwater - formation, physical and chemical properties, aquifer, Karst water, Springs, Mineral waters, Hydrogeothermal energy, Rivers - origin and types of watercourses, River system, river network, river basin, River water properties, River water movement, Water regime, Sediment regime, Glaciers - glaciers as water bodies, Avalanches, Permanently frozen land, Lakes - genetic classification, Forms of water movement, Thermal regime, Chemical composition of lake water, Lake as a community of living organisms, Wetlands - origin and types, Hydrological and thermal regime, Significance of wetlands, Seas and oceans - horizontal division of the World Sea, Ocean bottom and bottom sediments, Chemical and physical properties, Forms of sea water movement, Water management - division of water management, Forms of water use, Water pollution, Protection of water resources.

Practical part

Methods and instruments for determining the physical and chemical properties of water, Creating water balance, Graphical representation of the hydraulic connection of groundwater and rivers, Making a map of hydroisohypsis and determining the direction of groundwater, Types of springs in normal and karst terrains, Determining hydrometric elements of river basins on topographic map, Longitudinal river profiles, Construction of hypsographic curve of basin, Methods and instruments for determining water flow velocity, Graphic analysis of basic elements of river water regime, Construction of flow curve, Determination of morphometric elements of lake basin..

Literature

1. Дукић, Д., Гавриловић, Љ. (2006): *Хидрологија*, Завод за уџбенике и наставна средства Београд
2. Гавриловић, Љ., Дукић, Д. (2002): *Реке Србије*, Завод за уџбенике и наставна средства, Београд
3. Станковић, С. (2005): *Језера света*, Завод за уџбенике и наставна средства, Београд

Number of active classes	**Lectures:** **2**	**Practical classes:** **2**

Teaching methods

Lectures, exercises, consultations, term tests, term papers..

Assessment (maximum 100 points)

Course assignments	**points**	Final exam	**points**
Lectures	10	written exam	
Practical classes		oral exam	50
Term test(s)	30	.....	
Term paper(s)	**10**		