Level: bachelor

Course title: Hydrology

Status: elective

ECTS: 7

Requirements: none

Learning objectives

Gaining knowledge related to hydrological terms, features of water, fresh waters and world's seas, and comprehension of the main laws regarding hydrological processes and phenomena in hydrosphere.

Learning outcomes

Knowledge on hydrological terms and qualifications for causal understanding of problems regarding natural laws regarding occurrence of hydrological processes and phenomena.

Syllabus

Theoretical instruction

Topics, tasks and division of Hydrology. Basic hydrological concepts. Water cycle in the nature and water balance. Groundwater and its origin, conditions of emergence, feeding and movement types. Types and features of aquifer. Physical and chemical features of groundwater. Types and features of springs. Significance of groundwater and their scope. Potamology and general potamology notions. River valley and river bed. Main features of river water and its movement. Rive regime, factors and typology. Origin, types, distribution, erosion and accumulation activities and hydrological significance of glaciers. Origin and types of lakes, water balance and movement. Main features of lake waters. Distribution and significance of lakes. Origin, types and distribution of marshes. World seas and salt water features and movements. Economic significance of World's seas.

Practical instruction

Methodology of hydrological annuals utilisation and statistical processing of certain data. Methodology of studying aquifer. Methodology of defining borders and morphometrical features of river basin. Methodology of defining borders and morphometrical features of water courses. Methodology of studying the river regime. Methodology of defining morphometrical features of lakes. SONAR – a device used to measure the depth of water. Seminar paper preparation. Field work.

| Weekly teaching load: 5(75) | | | | Other: - |
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| Lectures: | Exercises: | Other forms of teaching: - | Student research: - | |
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