Engineering Hydrology

Title of Study Programme and Code	Type (compulsory/optional)	Cycle	Year of study when the component is delivered (if applicable)
Environment Protection Engineering, 6531EX042	Compulsary	1st	2nd
Semester/trimester when the component is delivered	**Number of ECTS credits allocated**	**Language of instruction**	**Mode of delivery (face-to-face/e-learning/…)**
4th	2	Lithuanian	Face-to-face

Learning outcomes		Study methods	Assessment methods
After completion of the study subject, a student should be able:		Interactive lecture; Individual work preparing for control work; Consultations; Situation analysis; Legislative analysis, analysis of the literature in preparation for control work.	Control work; Practical work defense.
LO 1	To gather information related to water resources, to analyze, to evaluate, and to provide the conclusions.		
LO 2	To calculate water flow elements analytically and to evaluate them.		
LO 3	To assess the hydrological characteristics, spring flood and storm levels and their probabilities, to determine the minimum period consistent in discharges.		
LO 4	To perform water measurements, to manage, and to analyze them, and to present conclusions modeling environmental attitude to the public.		
LO 5	To evaluate and admit appropriate decisions related to regulation of hydrological regime.		

Prerequisites (these courses must be sucessfully completed prior to taking this particular course)
Ecology and Environment
Course content
1. Introduction to engineering hydrology, tasks and applications. Water resources, their distribution, and classification. 2. Hydrometry. Water measurements and measuring instruments, data collection and management. 3. River runoff. Key elements of water balance and their impact on river runoff. River run-off mode. 4. Calculation of hydrological characteristics: spring and summer rains flood maximal rate, consistent period minimum flow rates. 5. Hydrological regime regulation, its objectives. Seasonal-annual, perennial drain regulation. 6. STR: "Engineering Hydrology. The main elements of calculation. Civil engineering works, flood control.
Recommended or required reading and other learning resources/tools
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