

<b>COURSE</b>		<b>HYDRAULIC STRUCTURES</b>		
<b>LECTURER</b>		Assoc. Prof. Emina Hadžić Ph.D.		
<b>STUDY</b>	<b>STATUS</b>	<b>SEMESTER</b>	<b>NUMBER OF LESSONS L+E</b>	<b>ECTS</b>
B – C.E.	Compulsory	6	2+1	5
<b>OBJECTIVES</b>				
Introduce students to the hydraulic structures, roles and functions, and the basis of their design and construction. To enable students to solve problems related to the design and maintenance of hydraulic structures and their elements.				
<b>LEARNING OUTCOMES</b>				
Define, describe and sketch the kind of hydraulic structures. To enable students to select the type of hydraulic structures, and perform basic hydraulic budget, depending on the problems that need to be addressed.				
<b>COURSE CONTENT</b>				
Introduction, basic concepts, historical overview. The place and role of hydraulic structures in solving the problems of water management, fundamentals solving and choice of solutions. Overview of hydraulic structures. Fundamentals and research work. Changes around the construction of hydraulic structures.				
Reservoirs: their purpose, design, water permeability, management. Storage basins: Regulating the flow, the role of accumulation; Storage capacity; Types of regulating flow; The basic parameters of the accumulation; Types of accumulation; Backfilling of accumulation; Other problems reservoirs; The transformation of the flood wave in the reservoir.				
Dams: The purpose of the dam. Types brana.Osnovni elements dam. The selection of the barriers. Choosing the type of dam. The causes breakage of dams. Concrete gravity dams: Loads acting on gravity dam. The stability of gravity concrete dam. Arc, flying buttresses and facilitated the dam. Embankment dams: Spillover and surface erosion. Internal erosion. Analysis of external forces. Leaking through the dam and provirna line. Protection against internal erosion.				
Buildings for transport of water-inlets and free- (canals, tunnels, pipelines). Brings pressure (pressure pipes, hydro-technical tunnels). Facilities on channels: aqueducts, siphons, culverts, bridge piers, stunts, fish ladders, measuring objects. Buildings in the river bed. Flood protection. Inland navigation.				
<b>RECOMMENDED LITERATURE</b>				
<ol style="list-style-type: none"> <li>1. Savić, M.Lj., 2003: Uvod u hidrotehničke građevine, GF Beograd,</li> <li>2. Stojić, P., 1997: Hidrotehničke građevine, GF Split,</li> <li>3. Petrović S.P., 1997: Hidrotehničke konstrukcije, GF Beograd,</li> </ol>				
<p>Examination:</p> <p>During the classes the exam is taken in two parts in writing – first and second partial exam Scoring is done as follows: Each partial exams - 50 points.</p> <p>a) If a student realizes 55% of both parts of the form his final score to a scale prescribed by the Law on Higher Education. Students who miss less than 5 points for grades 8, 9 and 10 were allowed to take the final exam orally for a higher grade.</p> <p>b) Students who pass one part, on the final exam take in writing the part that did not pass. The rating is formed as a) except that no oral option for a higher score.</p> <p>c) Students who do not pass any part during the classes, take the exam in writing integral.</p> <p>Cancelling exams: Students, who have passed both parts and are not satisfied with the results achieved in one part, can take that part again on the final exam.</p>				