

Study Programme: Civil Engineering			
Course Unit Title: Hydraulics			
Course Unit Code: GH403			
Name of Lecturer(s): Budinski Ljubomir, Fabian Đula			
Type and Level of Studies: bachelor			
Course Status (compulsory/elective): elective			
Semester (winter/ summer): winter			
Language of instruction: english			
Mode of course unit delivery (face-to-face/distance learning): face-to-face			
Number of ECTS Allocated: 6			
Prerequisites: none			
Course Aims: Enabling students in fundamental areas for acquiring professional knowledge and for application in practice.			
Learning Outcomes: Acquired knowledge is used as a basis for further upgrading in professional courses.			
Syllabus. Flows in open canals and water courses of prismatic and non-prismatic cross sections. Transition regimes and calculations on non-uniform flows in open conductors. Small structures and local changes in a flow. Distribution of stresses and introduction of logarithmic laws for velocity distribution in a turbulent planar or axially symmetric current. Ground water flows, dams with a free level, flows under pressure, multi-layered porous surroundings, flows towards a single well and a group of wells, flows through and under dams and embankments.			
Required Reading: Relevant literature in English, tbd			
Weekly Contact Hours:2	Lectures: 3	Practical work: 2	
Teaching Methods: Teaching is performed interactively in the form of lectures, auditory, laboratory and computer practice. At lectures, theoretical part of the course content is presented, followed by the characteristic examples for easier understanding of the course content. At auditory practice, characteristic exercises are solved and the course content is explained in more detail. At laboratory practice, acquired knowledge is practically applied on the available laboratory equipment. Apart from lectures and practice, consultations are regular. A part of the course content that makes a logical unit can be taken during the teaching process in the form of partial examinations. Partial examinations are taken in written form and as tests. Examination grade is made on the basis of: lecture and practice (auditory, laboratory and computer) attendance, partial examination grade and written examination grade (combined exercises and theory).			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	Final exam	points
Attendance			
Computer exercises			
Tests (4x)			

