

<b>Study program:</b> Civil engineering				
<b>Type and level of studies:</b> Bachelor studies, UAS (Undergraduate academic studies)				
<b>Course unit:</b> Hydrotechnical Structures and Systems				
<b>Teacher in charge:</b> Dr Vladimir Mandić				
<b>Language of instruction:</b> English				
<b>ECTS:</b> 3				
<b>Prerequisites:</b> Fluid mechanics and knowledge of AutoCAD,				
<b>Semester:</b> WS (winter semester)				
<b>Course unit objective:</b> Acquaintance of students with practical problems and acquisition of professional knowledge for application in practice in the field of water management and planning.				
<b>Learning outcomes of the course unit</b> Enabling students to understand different types of engineering problems in water management, familiarization with methods for solving basic hydrotechnical problems and training to work in flood management software, Aquaterra.				
<b>Course unit contents</b> <i>Theoretical classes</i> Theoretical classes includes the following units: Hydrometry and hydrology; Hydrotechnical objects; Building materials, static and dynamic water pressure and the impact of seismicity, waves, ice action, safety against slipping, rummaging and floating; Water filtration under buildings, buoyancy, measures to reduce buoyancy; Hydrotechnical systems, river regulation, flood defense, land reclamation, use of water energy, communal infrastructure systems. <i>Practical classes:</i> semester assignment (5 hydrotechnical problems) and training for working in flood management software .				
<b>Literature</b> 1. Loucks, Daniel P., and Eelco Van Beek. Water resource systems planning and management: An introduction to methods, models, and applications. Springer, 2017.				
<b>Number of active teaching hours</b>				<b>Other classes</b>
Lectures: 30	Practice: 15	Other forms of classes: /	Independent work: 15	/
<b>Teaching methods</b> Lectures and exercises, or mentoring work with a smaller number of students.				
<b>Examination methods ( maximum 100 points)</b>				
<b>Exam prerequisites</b>	<b>No. of points:</b>	<b>Final exam</b>	<b>No. of points:</b>	
Student's activity during lectures	5	oral examination	40	
practical classes/tests	5	written examination	30	
Seminars/homework	/	.....		
Project	20			
Other	/			
<b>Grading system</b>				
<b>Grade</b>	<b>No. of points</b>	<b>Description</b>		
<b>10</b>	<b>91-100</b>	Excellent		
<b>9</b>	<b>81-90</b>	Exceptionally good		
<b>8</b>	<b>71-80</b>	Very good		
<b>7</b>	<b>61-70</b>	Good		
<b>6</b>	<b>51-60</b>	Passing		
<b>5</b>	<b>Less than 51</b>	Failing		