WATER ENGINEERING 2022/23. 1. SEMESTER

ALAPADATOK			
COURSE NAME	**Vízépítés, vízgazdálkodás**		**Water Engineering**
COURSE CODE(S)	YCRVÍÉGBNF		
DEPARTMENT	Óbuda University Ybl Miklós Faculty of Architecture, Institute of Civil Engineering		
PROGRAMME, TRAINING	BSc		full time, Erasmus
COURSE INSTRUCTOR (Instructor managing the course)	Dr. Eszter Horvath-Kalman PhD, Associate Professor	kalman.eszter@ybl.uni-obuda.hu	consulting hours:
INSTRUCTORS, LECTURERS	Dr. Eszter Horvath-Kalman, Associate Professor	kalman.eszter@ybl.uni-obuda.hu	
PRE-REQUIREMENT	1 s Hydraulics		
HOURS OF LECTURES (WEEKLY)	2 hours		
HOURS OF CLASSROOM PRACTICE/ LAB EXERCISE (WEEKLY)	1 hours		
FIELD AND TRAINING (WEEKLY)	0 hours		
ASSIGNMENT	Midterm assignment and exam		
CREDITS	6 credits (ECTS)		
AIM OF THE COURSE, BRIEF DESCRIPTION	The aim of the course is to provide an overview of water engineering and water management.		
RECOMMENDED LITERATURE	• Dr. Hamvas Ferenc: Vízépítés (Műegyetemi Kiadó,1994); • Vízépítés, vízgazdálkodás, BME, HEFOP 2004.; • Vízkárelhárítás, BME, HEFOP • Davis Mackenzie: Water and Wastewater Engineering: Design Principles and Practice, Second Edition; • Willi H. Hager, Anton J. Schleiss, Robert M. Boes, Michael Pfister: Hydraulic Engineering of Dams • Michael Church: The Regulation of Peace River: A Case Study for River Management		
REQUIRED TECHNICAL APPLIANCES/ SOFTWARE	The use of mobile phones is prohibited during the examinations. In the case of online education: Contact: Neptun, E-learning and E-mail. Education materials: According to E-learning Lessons: E-learning, Team Own laptop is suggested.		

SCHEDULE OF THE SEMESTER

WEEK	LECTURE	LECTURER	FORM OF PRACTICE	PROGRAM OF PRACTICE
1.	The purpose and tasks of water management	Eszter Horvath-Kalman PhD	personal presence	Description of the semester assignments and requirements
2.	Plain water managment	Eszter Horvath-Kalman PhD	personal presence	Description of the semester assignments and requirements.
3.	Hillside water managment	Eszter Horvath-Kalman PhD	personal presence	Review of the knowledge of hydraulics and hydrology required to complete the semester design work.
4.	River regulatin, Downhill water regulation, Hardcoastal protection suturctures	Eszter Horvath-Kalman PhD	personal presence	Review of the knowledge of hydraulics and hydrology required to complete the semester design work.
5.	Drinking water management and drinking water well drilling	Eszter Horvath-Kalman PhD	personal presence	Consultation
6.	Hydropower	Eszter Horvath-Kalman PhD	personal presence	Consultation
7.	Mid-term test 1.	Eszter Horvath-Kalman PhD	personal presence	Mid-term test 1.
8.	Dam	Eszter Horvath-Kalman PhD	personal presence	Consultation
9.	Flood protection	Eszter Horvath-Kalman PhD	personal presence	Discussing the details of the design work
10.	Water transport, ports, harbours	Eszter Horvath-Kalman PhD	personal presence	Discussing the details of the design work
11.	Agricultural water managment	Eszter Horvath-Kalman PhD	personal presence	Consultation
12.	Thermal water management. Spa and beach baths.	Eszter Horvath-Kalman PhD	personal presence	Consultation
13.	Mid-term test 2.	Eszter Horvath-Kalman PhD	personal presence	Mid-term test 2.

REQUIREMENTS FOR THE COMPLETION OF THE SEMESTER		
MID-SEMESTER TASKS AND TESTS		
Requirement	**Description**	**Value** *(point, %, grade)*
PARTICIPATION AT LESSONS	The practice lessons can be missed up to three times (see § 46 ETVSZ)	-
IN CASE OF ABSENCE FROM LESSONS AND EXAMINATIONS	Absence is considered to be justified with a medical certificate presented.	-
Short description of the TASKS	An optional hydraulic engineering design exercise.	50 points
Short description of the TASKS	Description of an optional hydraulic engineering problem with a proposed solution.	50 points
Pre-exam / exam		2x50 ponits
TOTAL		200 points

<table>
<tr><th colspan="6">SEMESTER CLOSING REQUIREMENTS</th></tr>
<tr><td>CONDITIONS FOR OBTAINING A SIGNATURE</td><td colspan="5">To obtain a signature, you must complete two termly assignments and pass at least one of the two ZHs, and at least attend one of the two ZHs.</td></tr>
<tr><td rowspan="2">SEMESTER GRADE</td><td>0-119 Point</td><td>120-134</td><td>135-149</td><td>150-169</td><td>170-200</td></tr>
<tr><td>1 - FAIL</td><td>2 - PASS</td><td>3 - SATISFACTORY</td><td>4 - GOOD</td><td>5 - EXCELLENT</td></tr>
<tr><td rowspan="3">CONDITIONS FOR OBTAINING AN OFFERED GRADE</td><td colspan="5">24 out of the 40 points has to be reached in the test and at least 80 points together with the semester tasks.</td></tr>
<tr><td colspan="3">150-169 Point</td><td colspan="2">170-200 Point</td></tr>
<tr><td colspan="3">4 - GOOD</td><td colspan="2">5 - EXCELLENT</td></tr>
<tr><td>CONDITIONS FOR ADMISSION TO THE EXAM</td><td colspan="5">Only students who have already obtained a signature can take the exam.
During the exam period, the student has to register for the exam in the Neptun.
The test is a 60-minute written test with a total value of 50 points.</td></tr>
<tr><td rowspan="3">EXAM GRADE</td><td colspan="5"></td></tr>
<tr><td>0-28 Point</td><td>29-32</td><td>33-37</td><td>38-44</td><td>45-50</td></tr>
<tr><td>1 - FAIL</td><td>2 - PASS</td><td>3 - SATISFACTORY</td><td>4 - GOOD</td><td>5 - EXCELLENT</td></tr>
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