

WATER ENGINEERING

2023/24. 1. SEMESTER

ALAPADATOK			
COURSE NAME	Vízépítés, vízgazdálkodás		Water Engineering
COURSE CODE(S)	YCRVÍÉGBNF		
DEPARTMENT	Óbuda University Ybl Miklós Faculty of Civil Engineer		
PROGRAMME, TRAINING	BSc		full time
COURSE INSTRUCTOR (Instructor managing the course)	Dr. Eszter Horvath-Kalman PhD, Associate Professor	kalman.eszter@ybl.un i-obuda.hu	consulting hours:
INSTRUCTORS, LECTURERS	Dr. Eszter Horvath-Kalman, Associate Professor	kalman.eszter@ybl.un i-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	<ul style="list-style-type: none"> • 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		

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 management	Eszter Horvath-Kalman PhD	personal presence	Description of the semester assignments and requirements.
3.	Hillside water management	Eszter Horvath-Kalman PhD	personal presence	Review of the knowledge of hydraulics and hydrology required to complete the semester design work.
4.	River regulation, Downhill water regulation, Hardcoastal protection structures	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 management	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

SEMESTER CLOSING REQUIREMENTS					
CONDITIONS FOR OBTAINING A SIGNATURE	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.				
SEMESTER GRADE	0-119 Point	120-134	135-149	150-169	170-200
	1 - FAIL	2 - PASS	3 - SATISFACTORY	4 - GOOD	5 - EXCELLENT
CONDITIONS FOR OBTAINING AN OFFERED GRADE	24 out of the 40 points has to be reached in the test and at least 80 points together with the semester tasks.				
	150-169 Point			170-200 Point	
	4 - GOOD			5 - EXCELLENT	
CONDITIONS FOR ADMISSION TO THE EXAM	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.				
EXAM GRADE	0-28 Point	29-32	33-37	38-44	45-50
	1 - FAIL	2 - PASS	3 - SATISFACTORY	4 - GOOD	5 - EXCELLENT