COURSE SYLLABUS AND COURSE REQUIREMENTS
ACADEMIC YEAR 2024-2025 SEMESTER SPRING

Course title	*Hydrology*
Course Code	**MSB047ANEP**
Hours/Week: le/pr/lab	**1/1/1**
Credits	**4**
Degree Programme	**Civil Engineering BSc.**
Study Mode	**Full-time schedule**
Requirements	**Mid-semester grade**
Teaching Period	**Semester 4**
Prerequisites	**none**
Department(s)	**Civil Engineering**
Course Director	**Dr.Pál-Schreiner Judit**
Teaching Staff	**Dr.Pál-Schreiner Judit**

COURSE DESCRIPTION

This course exposes students to an expansive suite of topics and methods within the field of water resources engineering, emphasizes engineering applications of hydrology.

SYLLABUS

1. GOALS AND OBJECTIVES

This course exposes students to an expansive suite of topics and methods within the field of Hydrology. Hydrology is explored using fundamental conservation laws and ecologically-based design theory. Concepts include the properties of water, the water cycle, precipitation, runoff, flood, infiltration, groundwater flow, evaporation.

2. COURSE CONTENT

	TOPICS
LECTURE	*1. The water cycle, evaporation, condensation* *2. Precipitation* *3. Runoff* *4. Infiltration*
PRACTICE	*1. The water cycle, evaporation, condensation in practice* *2. Precipitation in practice* *3. Runoff in practice* *4. Infiltration in practice*
LABORATORY PRACTICE	*1. The water cycle, evaporation, condensation in lab* *2. Precipitation in lab* *3. Runoff in lab* *4. Infiltration in lab*

DETAILED SYLLABUS AND COURSE SCHEDULE

ACADEMIC HOLIDAYS INCLUDED

LECTURE

week	**Topic**	**Compulsory reading; page number (from … to …)**	**Required tasks (assignments, tests, etc.)**	**Completion date, due date**
1.	The water cycle, evaporation, condensation	[1.] 1-39		
2.				
3.	Precipitation	[1.] 40-90		
4.				
5.	Runoff, Surface Water Hydrology	[1.] 106-151		
6.				
7.	Infiltration	[1.] 187- 194		
8.				
9.	Ground Water Hydrology	1.]195-222		
10.				
11.	Theoretical Test			15-04-2025
12.				
13.	Retake			29-04-2025
14.				

PRACTICE

week	**Topic**	**Compulsory reading; page number (from … to …)**	**Required tasks (assignments, tests, etc.)**	**Completion date, due date**
1.				
2.	Evaporation, Precipitation 1	[1.] 23-90		
3.				
4.	Precipitation 2	[1.] 90-105	HW1	12-03-2025
5.				
6.	Surface Routing Models	[1.] 152-186		
7.				
8.	Infiltration	[1.] 187-222	HW2	06-04-2025
9.				
10.	Practical test			08-04-2025
11.				
12.	Easter Holiday			
13.				
14.	Retake			06-05-2025

LABORATORY PRACTICE

week	**Topic**	**Compulsory reading; page number (from … to …)**	**Required tasks (assignments, tests, etc.)**	**Completion date, due date**
1.	Full-day field measurement 09-05-2025	[2.]	Report	12-05-2025

3. ASSESSMENT AND EVALUATION

ATTENDANCE

In accordance with the Code of Studies and Examinations of the University of Pécs, Article 45 (2) and Annex 9. (Article 3) a student may be refused a grade or qualification in the given full-time course if the number of class absences exceeds 30% of the contact hours stipulated in the course description.

Method for monitoring attendance

Attendance sheet. Attending is required all classes, and will impact the grade (max. 10%). Unexcused absences will adversely affect the grade, and in case of absence from more than 30% of the total number of lesson will be grounds for failing the class. To be in class at the beginning time and stay until the scheduled end of the lesson is required, tardiness of more than 20 minutes will be counted as an absence. In the case of an illness or family emergency, the student must present a valid excuse, such as a doctor's note.

ASSESSMENT

Course resulting in mid-term grade *(PTE TVSz 40§(3))*

Mid-term assessments, performance evaluation and their ratio in the final grade

Type	Assessment	Ratio in the final grade
Theoretical Test	*25% (min 10%)*	*25%*
Practical test	*25% (min 10%)*	*25%*
Home works	*2*10% (min 4%)*	*20%*
Lab practical report	*20% (min 8%)*	*20%*
Class attendance	*10% (min 4%)*	*10 %*

Opportunity and procedure for re-takes (PTE TVSz 47§(4))

The specific regulations for improving grades and resitting tests must be read and applied according to the general Code of Studies and Examinations. E.g.: all tests and assessment tasks can be repeated/improved at least once every semester, and the tests and home assignments can be repeated/improved at least once in the first two weeks of the examination period.

Alll tests can be repeated/improved at least once every semester. Each individual assessment must be at least 40% on its own.

Grade calculation as a percentage

based on the aggregate performance according to the following table

Course grade	Performance in %
excellent (5)	85 % - 100%
good (4)	70 % - 84 %
satisfactory (3)	55 % - 69 %
pass (2)	40 % - 54 %
fail (1)	below 40 %

The lower limit given at each grade belongs to that grade.

4. SPECIFIED LITERATURE

COMPULSORY READING AND AVAILABILITY

[1.] Judit, Pál-Schreiner: Hydrology, 222 p. (2019)
The Hydrology course material was developed under the project EFOP 3.4.3-16- 2016-00005 "Innovative university in a modern city: open-minded, value-driven and inclusive approach in a 21st century higher education model", Megjelenés: Magyarország,
https://issuu.com/pte_mik_english_edu_material/docs/019_a_hydrology_k
[2.] Lecture notes ppt.

RECOMMENDED LITERATURE AND AVAILABILITY

[3.] John C. Manning: Applied Principles of Hydrology 3rd Edition ISBN-13: 978-0135655320;