

<b>Course title</b>	<b>Municipal Water Management</b>
<b>Course Code</b>	MSB114ANEP
<b>Hours/Week: le/pr/lab</b>	2/3/0
<b>Credits</b>	6
<b>Degree Programme</b>	Civil Engineering BSC
<b>Study Mode</b>	Full-time schedule
<b>Requirements</b>	Mid-semester grade
<b>Teaching Period</b>	Semester 6
<b>Prerequisites</b>	Hydrology and Fluid Mechanics 3.
<b>Department(s)</b>	Civil Engineering
<b>Course Director</b>	Dr. Pál-Schreiner Judit
<b>Teaching Staff</b>	Dr. Pál-Schreiner Judit

## COURSE DESCRIPTION

Within the framework of the course, the water supply system, the types and general characteristics of sewerage, the design and sizing guidelines are described; as well as structures of the water supply system and sewerage, construction technologies. Pipe materials, pipe embedding methods, main structures and fittings. Scaling principles and methods. Drawing markings, blueprint representation. Operation. Environmental aspects.

## SYLLABUS

### 1. GOALS AND OBJECTIVES

The aim of the course is to provide students graduating from the programme with sufficient knowledge in the field of municipal water management planning.

### 2. COURSE CONTENT

#### TOPICS

	TOPICS
<b>LECTURE</b>	The water supply system, the elements of public water supplies. □ Classification of public sewer systems, based on the operation of the sewer and based on the type of collection and conduct. □ Various pipe materials for water supply system and for sewer, and their pros and cons; □ Urban drainage systems (types, quality, quantity etc □ Calculation methods of public utilities (under pressure systems, gravity systems □ Pumps at water supply system. Sewage pumping station □ Traditional building methods (drainage of construction site, conditions) □ Traditional building methods (machines) □ Pipe materials and features
<b>PRACTICE</b>	<i>Students practice the basic calculations and design through sample examples and planning assignment a sewer system.</i>

## DETAILED SYLLABUS AND COURSE SCHEDULE

**LECTURE**

week	Topic	Compulsory reading; page number	Required tasks	Completion date, due date
1.	Course description; Orientation			
2.	Main parts of municipal waters supply system 1.	[2.]		
3.	Main parts of municipal waters supply system 2.	[2.]		
4.	Main parts of municipal waters supply system 3.	[2.]		
5.	Site visit 1_ Pécs, Tettye Forrásház Zrt) Pécs Water supply System		Report 1	Via Teams 15-03-2025
6.	Municipal Sewer systems	[2.]		
7.	Waste-water treatment process	[2.]		
8.	Site visit 2_ Pécs-Pellérd, Waste-water Treatment Plan		Report 2	Via Teams 05-04-2025
9.	Cross sections of gravity-type sewers, Structures of the Sewer System	[2.]		
10.	Public Utilities Tunnel	[2.]		
11.	Site visit 3_ Public Utilities Tunnel Pécs		Report 3	Via Teams 26-04-2025
12.	Easter Holiday – no classes			
13.	Integrated water management 1	[2.]		
14.	Integrated water management 2	[2.]		

**PRACTICE**

week	Topic	Compulsory reading	Required tasks	Completion date, due date
1.	Preparing planning assignment	[2.]		
2.	Preparing planning assignment, Consultation	[2.]		
3.	Preparing planning assignment, Consultation	[2.]		
4.	Preparing planning assignment, Consultation	[2.]		
5.	Site visit 1_ Pécs, Tettye Forrásház Zrt) Pécs Water supply System		Report 1	Via Teams 15-03-2025
6.	Preparing planning assignment, Consultation	[2.]		
7.	Preparing planning assignment, Consultation	[2.]		
8.	Site visit 2_ Pécs-Pellérd, Waste-water Treatment Plan		Report 2	Via Teams 05-04-2025
9.	Preparing planning assignment, Consultation	[2.]		
10.	Preparing planning assignment, Consultation	[2.]		
11.	Site visit 3_ Public Utilities Tunnel Pécs		Report 3	Via Teams 26-04-2025
12.	Easter Holiday – no classes			
13.	Consultation			
14.	Submission deadline			07-05-2025

**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**

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### **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
Site visit report 1	15(min6)	15%
Site visit report 2	15(min6)	15%
Site visit report 3	15(min6)	15%
Planning assignment	45(min18)	45%
Class attendance	10(min4)	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.

Participation in site visits is mandatory, with a maximum allowance of one absence. 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 %

## **4. SPECIFIED LITERATURE**

### **COMPULSORY READING AND AVAILABILITY**

[1.] KNOLMÁR-FÜLÖP-DARABOS: PUBLIC WORKS 2014- ONLINE BOOKLET

[2.] LECTURE NOTES PPT.

### **RECOMMENDED LITERATURE AND AVAILABILITY**

[3.] Hamada, M. et al (2014): Critical Urban Infrastructure Handbook, CRC Press ISBN-13:978-1466592049 ISBN-10:1466592044

[4.] Every Drop Counts-Environmentally Sound Technologies for Urban and Domestic Water Use Efficiency  
URL://www.unep.or.jp/