

<b>Course title</b>	<b>Public Utilities</b>
<b>Course Code</b>	<b>MSB418ANEP</b>
<b>Hours/Week: le/pr/lab</b>	<b>2/0/0</b>
<b>Credits</b>	<b>2</b>
<b>Degree Programme</b>	<b>Civil Engineering BSC</b>
<b>Study Mode</b>	<b>Full-time schedule</b>
<b>Requirements</b>	<b>Exam</b>
<b>Teaching Period</b>	<b>Semester 6</b>
<b>Prerequisites</b>	<b>none</b>
<b>Department(s)</b>	<b>Civil Engineering</b>
<b>Course Director</b>	<b>Dr. Pál-Schreiner Judit</b>
<b>Teaching Staff</b>	<b>Dr. Pál-Schreiner Judit</b>

#### COURSE DESCRIPTION

This course exposes students to an expansive suite of topics and methods within the field of Public Utilities. Engineering networks as a part of technical infrastructure in towns and cities. Public utilities categories, forms of placing, spatial arrangement, forms of construction. Technical requirements for design, structure and operation of public utilities.

#### SYLLABUS

##### 1. GOALS AND OBJECTIVES

Engineering networks as a part of technical infrastructure in towns and cities. Public utilities categories, forms of placing, spatial arrangement, forms of construction. Technical requirements for design, structure and operation of public utilities.

##### 2. COURSE CONTENT

#### TOPICS

<b>LECTURE</b>	<ul style="list-style-type: none"> <li>1. Definition of public utilities, public works</li> <li>2. Grouping and main features of public utilities</li> <li>3. Water treatment</li> <li>4. Urban wastewater systems, Public Utilities Tunnel</li> <li>5. Waste-water Treatment</li> </ul>
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#### DETAILED SYLLABUS AND COURSE SCHEDULE

##### LECTURE

week	Topic	Compulsory reading; page number	Required tasks (assignments, tests, etc.)	Completion date, due date
1.	Course description, Orientation			
2.	Definition of Public Utilities - Def. Infrastructure; Def. Public Utilities; main features of PU; grouping of PU (based on sector type, based on their location)			

3.	Water supply system, Catchment		presentations	
4.	Water Treatment, Water Demand		presentations	
5.	Water Distribution System		presentations	
6.	Pumps, Reservoirs		presentations	
7.	Sewer systems		presentations	
8.	Structures of the Sewer System		presentations	
9.	Manholes, Pumping station		presentations	
10.	Stormwater sewer systems		presentations	
11.	Wastewater Treatment		presentations	
12.	Easter Holiday-no classes			
13.	Exam test			29-04-2025
14.	Retake exam test (if required)			06-05-2025

### 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-unit with final examination**

#### **Mid-term assessments, performance evaluation and their weighting as a pre-requisite for taking the final exam**

Type	Assessment	Weighting as a proportion of the pre-requisite for taking the exam
<i>Exam test</i>	50%	50%
<i>Presentation</i>	40%	40%
<i>Class attendance</i>	10%	10%

#### **Requirements for the end-of-semester signature**

Each individual assessment must be at least 40% on its own.

#### **Re-takes for the end-of-semester signature (PTE TVSz 50§ (2))**

Exam test can be repeated/improved each at least once every semester.

**Type of examination:** *written*

**The exam is successful if the result is minimum 40%**

**Calculation of the grade** (TVSz 47§ (3))

**Calculation of the final grade based on aggregate performance in percentage.**

<b>Course grade</b>	<b>Performance in %</b>
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.] 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/