

## COURSE SYLLABUS SEMESTER SPRING 2021-2022

<b>Name of Course</b>	<b>PLANNING OF WATER SUPPLY AND SEWERAGE</b>
<b>Course Code</b>	MSB420ANEP
<b>Allotment of Hours per Week</b>	1 Lecture, 2 Practices
<b>Number of Credits</b>	4
<b>Program</b>	Civil Engineer BSc.
<b>Evaluation</b>	Exam (with grade)
<b>Semester</b>	4 <sup>nd</sup>
<b>Prerequisites</b>	Hydrology and Engineering Fluid Mechanics 3.
<b>Department</b>	Civil Engineering
<b>Instructor</b>	Dr. Judit PÁL-SCHREINER

### INTRODUCTION, GENERAL COURSE DESCRIPTION

This course exposes students to an expansive suite of topics and methods within the field of water supply and sewerage.

### LEARNING OBJECTIVES

Engineering networks as a part of technical infrastructure in towns and cities. Water supply and sewerage types, categories, forms of placing, spatial arrangement, forms of construction. Technical requirements for design, structure and operation of water supply and sewerage.

**Methodology:**

- Lectures: Lectures will give an introduction to the basic knowledge of the water supply and sewerage.
- Practical classes: Students will be able to practice the basic calculations and design through sample examples.
- Exam test: Accumulated knowledge is tested in an exam test.

**Schedule:**

Week	Topic of lecture
Week 1	Course description; Orientation
Week 2	The water supply system, the elements of public water supplies.
Week 3	Classification of public sewer systems, based on the operation of the sewer and based on the type of collection and conduct. Preparing planning assignment and consultation
Week 4	Various pipe materials for water supply system and for sewer, and their pros and cons; preparing planning assignment and consultation
Week 5	Urban drainage systems (types, quality, quantity etc) preparing planning assignment and consultation
Week 6	National Day
Week 7	Calculation methods of public utilities (under pressur systems, gravity systems) preparing planning assignment and consultation
Week 8	Pumps at water supply system. Sewage pumping station Preparing planning assignment and consultation
Week 9	Preparing planning assignment ,Traditional building methods (drainage of construction site, conditions) preparing planning assignment and consultation
Week 10	Traditional building methods (machines) preparing planning assignment and consultation
Week 11	Holiday
Week 12	Pipe materials and features preparing planning assignment and consultation
Week 13	Preparing planning assignment and consultation
Week 14	Exam test, Consultation
Week 15	Submission date

## ATTENDANCE AND GRADING

### **Attendance:**

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.

### **Masking required indoors**

The University of Pécs requires masking indoors for both vaccinated and unvaccinated individuals per the following:

Masks should properly cover both the nose and mouth.

More protective surgical, KN95 or N95 masks are highly recommended; bandanas and gators are not permitted.

Faculty may unmask while teaching if 4 m of distance is maintained. All students must always wear masks.

Individuals may only remove masks indoors when: in an enclosed room alone, actively eating or drinking (not on lessons)

### **Grading:**

Grading will follow the course structure with the following weight

10% - Class attendance, class activity

26 % - Exam Test (min 13%)

64% - Planning Assignment (min 32%)

A minimum of 50% is required to pass the exam

**Offered exam grade:**

Evaluation in percents	Numeric grade
85 -100%	(5, excellent)
71 - 84%	(4, good)
60 - 70%	(3, avarage)
50 - 59%	(2, satisfactory)
0 - 49%	(1, fail)

**READINGS AND REFERENCE MATERIALS**

- [1.] Hamada, M. et al (2014): Critical Urban Infrastructure Handbook, CRC Press ISBN-13:978-1466592049 ISBN-10:1466592044
- [2.] Every Drop Counts-Environmentally Sound Technologies for Urban and Domestic Water Use Efficiency URL://www.unep.or.jp/