# COURSE SYLLABUS AND COURSE REQUIREMENTS 2022/2023. II. SEMESTER

Course title	Case Studies in Geotechnical Engineering	
Course Code	MSM140ANEP	
Hours/Week: le/pr/lab	2/1/0 (3., 4., 6., 8., 11., 12., 14., week (Thursday 13:15-16:30) A301	
Credits	2	
Degree Programme	Structural Engineering MSc./ obligatory	
Study Mode	full time	
Requirements	semester grade with signature	
Teaching Period	MSc 2. semester (spring)	
Prerequisites	-	
Department(s)	Department of Civil Engineering	
Course Director		
Teaching Staff	Dr. Vendel JÓZSA, assistant professor	
Hours/Week: le/pr/lab	Dr. Vendel JÓZSA <u>tel: 30-395-1807</u> jozsavendel@gmail.com	

# COURSE DESCRIPTION

This course aims at teaching the basics of geotechnical and soil mechanical problems and covers the following topics: Swelling of clay, foundation on organic soil, weak and compressible soil, failures of geotechnical structures and buildings.

# **SYLLABUS**

# **1.** GOALS AND OBJECTIVES

Students will gain from this course:

Knowledge of preparation of ground investigation, Practical knowledge of selecting the locations of investigation points, Understanding of the interpretation method of geotechnical results..

## **2.** COURSE CONTENT

Neptun: Instruction/Subjects/Subject Details/Syllabus/Subject content

	TOPICS
LECTURE	
	3-4. Course description. Orientation. Case studies of building damages I., Home work
	preparation
	6-8. Case studies of building damages II.,
	11-12. Geotechnical stabilizations,
	11-12. Geo5, Plaxis
	12. week: exam
	14. Home work presentations, Second exam (only if required)
PRACTICE	Calculation examples related to the lectures

# **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

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

Mid-term assessments, performance evaluation and their ratio in the final grade (The samples in the table to be deleted.)

Туре	Assessment	Ratio in the final grade
exam	50 point	50 %
Home work	50 point	50 %
full:	100 point	100 %

#### 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.

#### Grade calculation as a percentage

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

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

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

The specific regulations for grade betterment and re-take must be read and applied according to the general Code of Studies and Examinations. E.g.: all the tests and the records to be submitted can be repeated/improved each 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.

#### Type of examination: written

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

## 4. SPECIFIED LITERATURE

In order of relevance. (In Neptun ES: Instruction/Subject/Subject details/Syllabus/Literature)

#### **RECOMMENDED LITERATURE AND AVAILABILITY**

Bond, A. and Harris A.: Decoding Eurocode 7, London: Taylor & Francis 2008.

Farkas, J., Józsa, V., Szendefy J. (2014): Foundation Engineering, elektronikus angol BSc egyetemi jegyzet, BME, Geotechnikai Tanszék p. 97.

## Presentations