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

Course title	*Soil-Structure Interaction*
Course Code	*MSM138ANEP*
Hours/Week: le/pr/lab	*2/0/0 (3., 4., 6., 8., 11., 12., 14., week (09:30-12:45) 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 tel: 30-395-1807 jozsavendel@gmail.com*

COURSE DESCRIPTION

This course aims at teaching the basics of soil mechanics connecting to the (geotechnical) structures and covers the following topics: basics of Eurocode 7, equilibrium states and conditions of equilibrium; deep excavation; anchoring; monitoring systems, foundations.

SYLLABUS

1. GOALS AND OBJECTIVES

This subject intends to provide students with knowledge in the basics of geotechnical serviceability and ultimate limit state, excavation methods, and lateral supporting systems (e.g. braced excavation, top-down,- anchored method), retaining walls, strutting systems, foundation design. An additional objective is to prepare students with a basic knowledge for compare monitoring,- and calculated results.

Students will gain from this course:
Knowledge of equilibrium states,
Practical knowledge of excavation methods,
Understanding of monitoring systems.

2. COURSE CONTENT

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

	TOPICS
LECTURE	3-4. Soilmechanical parameters, definitions, Home work preparation 6-8. Special deep foundations, deep excavations, Raft foundation with piles, Case studies, complex design 11-12. Anchors, stone column, jet grouting, stabilization methods **12. week: exam** 14. Home work presentations, Second exam (only if required)

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

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.)*

Type	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.

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. (2008): Decoding Eurocode 7, London: Taylor & Francis.

Chang Y.O. (2006): Deep Excavation, Theory and Practice, London: Taylor & Francis.

Das, B.M. (1998): Principles of Geotechnical Engineering, 4th edition, PWS Publishing Company.

Farkas, J., Józsa, V., Szendefy J. (2014): Foundation Engineering, BME, p. 97.

Presentations