

COURSE SYLLABUS AND COURSE REQUIREMENTS

2022/2023. II. SEMESTER

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

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 | TOPICS |
|---------|--|
| | 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) |

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.)

| 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.: 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