

Tárgytematika / Course Description

Case studies in Geotechnics

EKNM_SETA020

Tárgyfelelős neve /

Teacher's name: dr. Ray Richard Paul

Félév / Semester: 2022/23/2

Beszámolási forma /

Assesment: Folyamatos számonkérés

Tárgy heti óraszám /

Teaching hours(week): 2/1/0

Tárgy féléves óraszám /

Teaching hours(sem.): 0/0/0

OKTATÁS CÉLJA / AIM OF THE COURSE

Aim of the course is to expand the student's previous knowledge about geotechnics and to provide students with a comprehensive engineering approach through case studies. This will be done by presenting the geotechnical design process as well as the construction of various infrastructure works (bridge, underpass, retaining structure, excavations), with an emphasis on damages or failures connected to geotechnical activity or the soil surrounding. By presenting economical aspects as well as the importance of risk management, the student's complex engineering approach will develop.

TANTÁRGY TARTALMA / DESCRIPTION

Case Studies in Geotechnical Engineering Fall 2019

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Class	Topics	Lecturer	Reading
1.	Introduction to course, Motivation Pisa	RPR	1. Delatte & Rens
2.	New Orleans Levee and Hurricane Katrina	RPR	2. Seed et al 3. Guidelines for Case Study
3.	How to Give Scientific Presentations	RPR	4. Craft of TC 40 Forensic Sci Pres.
4.	Choose Case Study		
5.	Scientific Presentations And Posters	RPR	5. Poster Templates
6.	Site Investigation Soil Variability	RPR	6. Statistics
7.	No Lecture Holiday (Oct 23)		

Grade Divisions 100-90 pts (5) 80-89 pts (4) 70-79 pts (3) 60-69 pts (2) 0-59 pts (1)

KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

1. Smoltczyk szerk.: Geotechnical Engineering Handbook Volume 1-3, Ernst and Sohn, 2003.
[Richard P. Ray: Design practice for tieback excavation in the U.S.](#)

2. Delatte, N., and Rens, K. (2002). "Forensics and Case Studies in Civil Engineering Education: State of the Art." *J. Perform. Constr. Facil.*, 16(3), 98-109. http://engagedscholarship.csuohio.edu/encee_facpub?utm_source=engagedscholarship.csuohio.edu%2Fencee_facpub%2F37&utm_medium=PDF&utm_campaign=PDFCoverPages

3. Seed, R.B. et al New Orleans and Hurricane Katrina. I: Introduction, Overview, and the East Flank *Journal of Geotechnical and Geoenvironmental Engineering*, Vol. 134, No. 5, May 1, 2008 10.1061/(ASCE)1090-0241 (2008) 134:5 (701)