

Tárgytematika / Course Description

Geotechnics in Practice

EKNB_SETA042

Tárgyfelelős neve /

Teacher's name: Koch Edina

Félév / Semester: 2022/23/1

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

The aim of the course is to illustrate the knowledge and the tools learned in early geotechnical subjects through case studies. The case studies to be presented encompass the civil engineering areas and their geotechnical concerns and show special geotechnical tasks and technologies and analyze mistakes and damages where soil conditions and geotechnical activities play a definite role. Home and classroom tasks to be solved and their presentation serve the achievement of requirements according to the education level.

TANTÁRGY TARTALMA / DESCRIPTION

The case studies will be focused on the followings.

Embankment foundation;

Retaining structures;

Foundations of roadway and railway bridges, underpasses, excavation pits;

Importance of geotechnical investigations in the preparation phase;;

Optimal foundation solution, geotechnical structures and technologies;

Monitoring for risk management;

Typical design errors and construction mistakes and their effect on the maintenance of the structure.

SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESSMENT'S METHOD

Homework assignments

HF1 Evaluation of english technical paper, presentation

HF2 Design problem, presentation

HF3 Construction problem, presentation

Course Grade Evaluation

HF1 – 15 points, HF2 – 30 points, HF3 – 30 points, class activity - 25 points

Grades

0 - 49 points	1 (fail)
50 - 61 points	2 (sufficient)
62 - 73 points	3 (satisfactory)
74 - 85 points	4 (good)
86 - 100 points	5 (excellent)

KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

Mecsi J.: Geotechnical Collapses: Understanding the Problems and Finding the Solution, Hungarian Geotechnical Society, Budapest, 2012.

Szepesházi R.: Synergies in Geotechnics: Interpretations, Precedents and Perspectives, ÖIAV, Vienna, Austria, 2014.

Adeyeri Joseph: Technology and Practice in Geotechnical Engineering, Idea Group.U.S., 2015.

Buddhima Indraratna , Ana Heitor , Jayan S. Vinod: Geotechnical Problems and Solutions : A Practical Perspective, Taylor & Francis Ltd, 2020.

Selected papers