

## Tárgytematika / Course Description

### Geotechnical structures and technologies

NGM\_SE114\_1

**Tárgyfelelős neve /**

**Teacher's name:** dr. Ray Richard Paul

**Félév / Semester:** 2015/16/2

**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

Encourage the development of an engineering attitude that allows graduate engineers to design and construct geotechnical structures for full life cycle by balancing functional requirements, environmental constraints, available technology and economical aspects.

---

### TANTÁRGY TARTALMA / DESCRIPTION

Development of geotechnics and new equipments. Overview of earth retaining and special deep foundation structures. Overview of the special deep foundation and soil improvement technologies. Application of earth reinforcement. Interaction of function, material, durability and construction. Overview of the technological risk reduction related to design, construction and maintenance.

---

### SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESSMENT'S METHOD

*Exam : Midterm exam (TBA)*

*Homework assignments*

*HW1 Evaluation of English technical paper*

*HW2 Pile design*

*HW3 Retaining wall design*

*Course Grade Evaluation*

<b>Class activity</b>	<b>10 points</b>
<b>Midterm exam</b>	<b>20 points</b>
<b>HW1</b>	<b>20 points</b>
<b>HW2</b>	<b>25 points</b>
<b>HW3</b>	<b>25 points</b>

*Grades*

0 - 49 points (1) unsatisfactory

50 - 61 points (2) satisfactory

62 - 73 points (3) fair

74 - 85 points (4) good

86 - 100 points (5) excellent

---

## KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

- M.J. Tomlinson and R. Boorman: Foundation design and construction, Pearson Education Limited, 2001.
- U. Smolczyk : Geotechnical Engineering Handbook, Volume 1-3, Ernst and Sohn, 2003.
- EN..... Execution of Special Works, European Standards.
- M.P. Moseley, K. Kirsch, ed: Ground Improvement, Taylor and Francis, London,2004.