

Course G1465: GEOTECHNICAL ENGINEERING: FOUNDATIONS, EXCAVATIONS AND TUNNELS

GENERAL INFORMATION

Spring Semester
6 ECTS credits

INSTRUCTOR(S)

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Description

Site exploration: planning, borings, test pits, in situ tests, geophysical methods. Shallow and deep foundations: design and construction. Earth retaining structures. Excavations and fills: slope stability. Ground improvement. Tunnels in rock and soft ground: geotechnical aspects of construction methods, design considerations.

TEXTBOOK

Fundamentals of Geotechnical Engineering. Das, B.M. Practical Rock Engineering. Hoek, E. (2007)

SYLLABUS

1. Soil exploration
2. Foundations
3. Retaining walls
4. Retaining walls
5. Excavations and earthworks
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7. Ground improvement
8. Tunnels