

Course G1464: CONSTRUCTION OF CIVIL INFRASTRUCTURE

GENERAL INFORMATION

Spring Semester
6 ECTS credits

INSTRUCTOR(S)

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Description

This course offers to the student a review of the main engineering concepts related with the construction of civil infrastructure: types of civil infrastructures, machinery used in civil engineering, construction procedures and management systems in construction engineering. At the end of the course, the student will be able to allocate resources during the construction process with effectiveness and efficiency, to use interdisciplinary approach as basic mechanism of value-creating in construction engineering, to respect the built heritage and the cultural expression in construction, and to be sensitivity to problems of safety and health in construction, minimizing the risks in all the activities.

TEXTBOOK

Textbooks: *“Moving the earth: the workbook of excavation”* / Herbert L. Nichols, David A. Day. 6th ed. New York: Mc Graw Hill, 2010, and *“Modern construction management”* / Frank Harris and Ronald McCaffer with Francis Edum-Fotwe. 6th ed. Oxford: Blackwell, 2006.

SYLLABUS

1. History of construction technology.
2. Earthmoving and aggregates production.
3. Excavation, load and elevation.
4. Transport, laid and compaction.
5. Concrete and Asphalt production and use.
6. Construction of foundations and walls, tunnels and bridges, canals and ports.
7. Construction sector and organization charts.
8. Construction contract management with public and private clients.
9. Construction initial planning.
10. Project management.
11. Construction safety and health, quality and environmental management.