

<i>Course title:</i> Construction engineering and management	<i>Code:</i> ErasmusFCEE-EM
<i>Field of study:</i> Civil Engineering	<i>Year / semester:</i> II
<i>Speciality:</i>	<i>Course:</i> compulsory
<i>Hours / week:</i> Lectures: 0,5 Tutorials: 0 Laboratories: 0 Project / Seminars: 1	<i>Number of credits:</i> 6

Lecturer: Tomasz Wiatr, PhD, C.E.
Tel. +48 61 665 2464, +48 61 665 2457
e-mail: tomasz.wiatr@put.poznan.pl

Institute / Faculty: Institute of Structural Engineering, Faculty of Civil and Environmental Engineering,
ul. Piotrowo 5, 60 965 Poznań
tel. +48 61 665 2413, fax +48 61 665 2444
e-mail: office_dceef@put.poznan.pl

Status of the course in the study program:

Core course for students of Civil Engineering

Course description:

Overview of project management knowledge areas in specific conditions of construction industry. Structurisation of construction projects and products for purposes of planning (design and build). Typology of structures and structural elements in the aspect of realization methods. Project resources in the aspect of construction project planning methods and problems (temporary structure design, machines selection, cost estimation, network scheduling) with example of reinforced concrete structure realization (tank, tunnel or basement of building). Software tools for project scheduling (modelling and analysis with critical path method) and design of formworks (layouts and statics) for concrete structures.

Teaching outcomes:

Basic competences of civil engineering in the aspect of project planing (design and build problems).

Prerequisites:

Knowledge in the area of structural materials and statics, technical drawing and CAD software.

Teaching method:

Lectures (direct lecture, computer presentations, freehand sketches),
Project (work with example structure, software options explanation).

Assessment method:

Oral examination (discussion with aid of writing),
Project elaboration (electronic format files checking).

Bibliography (in English language):

1. Benton R.: Basic structural detailing. Longman Scientific and Technical, Honk Kong 1989.
2. Bodapati N., Snell L. M.: Scheduling from a designer's perspective. Concrete International, ACI 1999.
3. Design Tables. Formwork and Shoring. Peri, Weissenhorn 2008.
4. Halpin D.W.: Construction management. John Wiley & Sons, 2005.
5. Primavera Project Planner. Planning and control guide. Primavera Systems, 1999.
6. Winch G. M.: Managing construction projects. Blackwell Science, 2002.

