

<i>Course title:</i> Construction Project Management	<i>Code:</i> ErS2
<i>Field of study:</i> Civil Engineering	<i>Year / semester:</i> III
<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 Building Structures, 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_dceeaf@put.poznan.pl

Status of the course in the study program:

Core course for students of Civil Engineering/Building Engineering

Course description:

Overview of project management (PM/CM) knowledge areas in specific conditions of construction industry. Structurisation of construction projects and products for purposes of planning. Typology of buildings structure elements (load bearing & non load bearing) in the context of construction methods (industrialised vs traditional) in BIM/IFC context. Project resources (people, equipment, materials) in construction project planning (health and safety plan, cost estimate, network schedule) with example of reinforced concrete (precast & cast in placed) building structure realization. Software tools for project scheduling (network with critical path analysis), site planning (logistics, cranes, formworks) with 3D/3D BIM/IFC modelling/analysis.

Teaching outcomes:

Basic competences of civil/building engineering in the aspect of construction project planning.

Prerequisites:

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

Teaching method:

Lectures (computer presentations, oral explanations, freehand sketches),
 project (team work with example building, software options explanations).

Assessment method:

Final testing (questions, tasks, problems) and project elaboration (electronic document).

Bibliography (in English language):

1. Caupin G., Knoepfel H., Koch G., Pannenbäcker K., Pérez-Polo F., Seabury C. ICB - IPMA Competence Baseline Version 3.0, June 2006. International Project Management Association.
2. Eastman C., Teicholz P., Sacks R., Liston K., BIM Handbook. A Guide to Building Information Modelling for Owners, Managers, Designers, Engineers and Contractors. Wiley, 2008
3. Hendrickson C., Project Management for Construction. Fundamentals Concepts for Owners, Engineers, Architects and Builders. Carnegie Mellon University, Pittsburgh 2008.
4. Martinek W., Nowak P., Woyciechowski P., Technology of Building Works. Manuscript, Warsaw 2009.
5. Standards/codes, product and software manuals, selected white papers and own webpage resources.
6. Wiatr T., Project case based on industrial building hall in form of 3D/3D BIM/IFC model. Poznań 201X.