

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Construction Technology Laboratory		Code 1010112121010105660
Field of study Civil Engineering	Profile of study (general academic, practical) (brak)	Year /Semester 1 / 2
Elective path/specialty -	Subject offered in: English	Course (compulsory, elective) obligatory
Cycle of study: Second-cycle studies	Form of study (full-time, part-time) full-time	
No. of hours Lecture: 15 Classes: 30 Laboratory: 15 Project/seminars: 15		No. of credits 4
Status of the course in the study program (Basic, major, other) (brak)		(university-wide, from another field) (brak)
Education areas and fields of science and art technical sciences		ECTS distribution (number and %) 4 100%
Responsible for subject / lecturer: M.Sc. Eng. Roman Milwicz email: roman.milwicz@put.poznan.pl tel. 616652830 Budownictwa i Inżynierii Środowiska ul. Piotrowo 5 60-965 Poznań		Responsible for subject / lecturer: M.Sc. Eng. Sebastian Dubas email: sebastian.dubas@put.poznan.pl tel. 616652830 Faculty of Civil and Environmental Engineering ul. Piotrowo 5 60-965 Poznań
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	Basic knowledge of construction technology: materials, equipment, machines
2	Skills	Learn how to prepare construction process Ability to search the information
3	Social competencies	Awareness of lifelong learning, the ability to work in a group and adopt different social roles.
Assumptions and objectives of the course: Familiarize students with the methodology for calculating the LCC, the methods of creating and calculating cost estimates and familiarization with the methods of planning construction projects		
Study outcomes and reference to the educational results for a field of study		
Knowledge:		
1. Student knows the procedures of construction technology. Knowledgeable about the materials, costs, equipment and organization of the construction process - [K_W10]		
2. Student has knowledge about traditional construction methods. Understand the principles of strength of materials and economy - [K_W11]		
3. Student knows and applies the provisions of construction solutions - [K_W17]		
4. The student has knowledge about the impact of the investment and the existing buildings on the environment - [K_W13]		
Skills:		
1. Uses specialized tools to find useful information, communication and acquisition of software to support the work of the designer and organizer of the building process - [K_U05]		
2. Student knows how to do, contract or construction project, manage the building process. - [K_U10]		
3. Student is able to explain the most important technologies and methods connected with civil engineering - [K_U12]		
4. Student can make the development of preparing him to undertake scientific work. - [K_U18]		
Social competencies:		

1. Student can carrying out certain tasks to work independently, to work in a team and manage a team. - [K_K01]
2. Student is responsible for the accuracy of the results of their work and an assessment of the work of a subordinate unit - [K_K02]
3. Student can complement and extens knowledge of modern processes and technologies in construction - [K_K03]
4. Student is aware of the need for sustainable development in construction - [K_K04]
5. Student understands the need to inform the public knowledge of the construction - [K_K08]

Assessment methods of study outcomes

The activity of the student in the classroom
 Final test of the lectures
 Indirect tests, after each major part of material

Course description

construction technologies:

1. Inner and outer plasters
2. Flat roofs
3. Steep roofs
4. Foundations
5. Deep foundations
6. Waterproof, humidproof insulation
7. Thermal insulation
8. Drywalls partition walls
9. Drywall ceilings
10. Cement and gypsum flooring
11. Carpentry
12. Tiling
13. Painting works, types of paints
14. Masonry (brickwork)
15. Earthwork
16. Fastening systems, joints, fasteners (nails, screws, bolts, nuts)

Basic bibliography:

1. Structural Glass Facades and Enclosures, Mic Patterson
2. Foundations & Concrete Work, Fine Homebuilding Magazine
3. Flat Roof Construction Manual (Konstruktionsatanten), Klaus Sedlbauer
4. Complete Masonry: Building Techniques, Decorative Concrete, Tools and Materials, Sunset Books

Additional bibliography:

1. The Timber-Frame Home: Design, Construction, Finishing, Tedd Benson
2. Materiały udostępnione na portalu edukacyjnym Moodle PUT

Result of average student's workload

Activity	Time (working hours)	
1. Lectures	15	
2. Laboratories	45	
3. Student	30	
Student's workload		
Source of workload	hours	ECTS
Total workload	75	4
Contact hours	60	2
Practical activities	15	2