

MODULE SPECIFICATION

Module code	
Module title in Polish	Technologia robót budowlanych 2
Module title in English	Technology of Building Works 2
Module running from the academic year	2016/2017

A. MODULE IN THE CONTEXT OF THE PROGRAMME OF STUDY

Field of study	Civil Engineering
Level of qualification	First cycle <i>(first cycle, second cycle)</i>
Studies profile	Academic <i>(academic/practical)</i>
Mode of study	Full-time <i>(full-time / part-time)</i>
Specialism	
Organisational unit responsible for module delivery	Department of Civil Engineering Technology and Organization
Module co-ordinator	Ryszard Dachowski, PhD hab., Eng., Professor of the University
Approved by	Marek Iwański, Professor

B. MODULE OVERVIEW

Module type	Core module <i>(core/programme-specific/elective HES*)</i>
Module status	Compulsory module <i>(compulsory / non-compulsory)</i>
Language of module delivery	English
Semester in the programme of study in which the module is taught	Semester 6
Semester in the academic year in which the module is taught	Winter semester <i>(winter / summer)</i>
Pre-requisites	None <i>(module code/module title, where appropriate)</i>
Examination required	Yes <i>(yes / no)</i>
ECTS credits	2

Mode of instruction	lectures	classes	laboratories	project	others
Total hours per semester	30			15	

* elective HES – elective modules in the Humanities and Economic and Social Sciences

C. LEARNING OUTCOMES AND ASSESSMENT METHODS

Module aims	The aim of the module is to familiarise students with the abilities and competences as regards preparing and conducting optimal technological process in system and traditional civil engineering at the stage of shell construction (and following OHS regulations).
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Module outcome code	Module learning outcomes	Mode of instruction (l/c/lab/p/ others)	Corresponding programme outcome code	Corresponding discipline-specific outcome code
W_01	A student has fundamental knowledge on the technologies of works and realisation as regards building structures.	l/p	B_W12	T1A_W02 T1A_W03 T1A_W04 T1A_W05 T1A_W07
W_02	A student is knowledgeable about the technology of building works, particularly on designing constructional processes.	l/p	B_W13	T1A_W02 T1A_W03 T1A_W06 T1A_W08
U_01	A student can use basic norms and guidelines with respect to designing and realizing building structures and their elements.	l/p	B_U13	T1A_U05 T1A_U07 T1A_U11 T1A_U15 T1A_U16
U_02	A student can design building processes as regards the technology of building works with the elements of technical and economical optimisation; a student can organise a workstand.	p	B_U20 B_U21	T1A_U03 T1A_U05 T1A_U09 T1A_U12 T1A_U13 T1A_U16
K_01	A student can work individually and co-operate in a team on the assigned task.	p	B_K01	T1A_K01 T1A_K03 T1A_K04
K_02	A student can formulate conclusions and is responsible for the reliability of the results.	p	B_K02 B_K04	T1A_K01 T1A_K02 T1A_K05 T1A_K07
K_03	A student draws particular attention to OHS principles during works.	p	B_K05	T1A_K05 T1A_K07

Module content:

1. Topics to be covered in the lectures

No.	Topics	Module outcome code
1.	The technology of works connected with realising boarding (the division of boarding; assembly and disassembly).	W_01 W_02 U_01 U_02
2.	The technology of works connected with realising boarding (specialist boarding). The division of scaffoldings.	W_01 W_02 U_01 U_02
3.	The assembly of building structures: the methods and types of assembly; machines and auxiliary assembly devices.	W_01 W_02 U_01 U_02

		K_03
4.	Assembly technology of reinforced concrete prefabricated structures. Free and induced assembly.	W_01 W_02 U_01 K_03
5.	The technology of assembling steel structures. OHS principles during assembling works.	W_01 U_01 K_03
6.	The technologies of erecting specialist objects.	W_01 U_01 K_03
7.	The scope and significance of finishing works.	W_01
8.	The technology of roofing works (tar paper, coating, bituminous tiles, and roof tile metal sheet). The realisation of flat and pitched roofs.	W_01 W_02 U_01 U_02
9.	The technology of plaster external mechanical and hand works.	W_01
10.	The technology of external plaster works (thin-later plasters, decorative and ornamented plasters).	W_01 W_02 U_01 U_02
11.	The technology of insulation works (insulation systems).	W_01 W_02 U_01
12.	The technology of cladding and painting works.	W_01
13.	The technology of floor works (laying hydroinsulation, thermoinsulation, and floors).	W_01 W_02 U_01
14.	The realisation of jointless floors (material and technology). Dilatational and non-dilatational jointless floors.	W_01 W_02 U_01 U_02
15.	The technology of insulation works (their division and materials).	W_01 U_01

2. Topics to be covered in the classes
3. Topics to be covered in the laboratories
4. Topics to be covered in the projects

Project number	Topics	Module outcome code
1.	Calculating the thrust of concrete mix and static calculations of the traditional boarding structure.	W_01 U_01 U_02 K_01 K_03
2.	Determining the demand for indispensable materials for traditional boarding.	W_01 U_01 U_02 K_01 K_02
3.	Selecting slabs and joining elements together with the indispensable accessories for boarding in a particular technological system.	W_01 U_01 U_02 K_01 K_02 K_03

4.	Presenting a list of indispensable materials to realise system boarding for a reinforced concrete structure.	W_01 U_01 U_02 K_01 K_02
5.	Graphical presentation of selecting system and traditional boarding.	W_01 U_01 K_01 K_02

Assessment methods

Module outcome code	Assessment methods <i>(Method of assessment; for module skills – reference to specific project, laboratory and similar tasks)</i>
W_01	An examination
W_02	An examination, a test, and a project
U_01	An examination and a project
U_02	An examination and a project
K_01	An examination and a project
K_02	An examination and a project
K_03	A project

C. STUDENT LEARNING ACTIVITIES

ECTS summary		
	Type of learning activity	Study time/ credits
1	Contact hours: participation in lectures	30
2	Contact hours: participation in classes	
3	Contact hours: participation in laboratories	
4	Contact hours: attendance at office hours (2-3 appointments per semester)	1
5	Contact hours: participation in project-based classes	15
6	Contact hours: meetings with a project module leader	1
7	Contact hours: attendance at an examination	3
8		
9	Number of contact hours	50 <i>(total)</i>
10	Number of ECTS credits for contact hours <i>(1 ECTS credit =25-30 hours of study time)</i>	1.7
11	Private study hours: background reading for lectures	1
12	Private study hours: preparation for classes	
13	Private study hours: preparation for tests	1
14	Private study hours: preparation for laboratories	
15	Private study hours: writing reports	
16	Private study hours: preparation for a final test in laboratories	
17	Private study hours: preparation of a project/a design specification	6
18	Private study hours: preparation for an examination	2
19		
20	Number of private study hours	10

		<i>(total)</i>
21	Number of ECTS credits for private study hours <i>(1 ECTS credit =25-30 hours of study time)</i>	0.3
22	Total study time	60
23	Total ECTS credits for the module <i>(1 ECTS credit =25-30 hours of study time)</i>	2
24	Number of practice-based hours <i>Total practice-based hours</i>	23
25	Number of ECTS credits for practice-based hours <i>(1 ECTS credit =25-30 hours of study time)</i>	0.8