

## MODULE SPECIFICATION

Module code	
Module title in Polish	<b>Ekonomika budownictwa</b>
Module title in English	<b>Economics of Civil Engineering</b>
Module running from the academic year	<b>2016/2017</b>

### A. MODULE IN THE CONTEXT OF THE PROGRAMME OF STUDY

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

### B. MODULE OVERVIEW

Module type	<b>Core module</b> <i>(core/programme-specific/elective HES*)</i>
Module status	<b>Compulsory module</b> <i>(compulsory / non-compulsory)</i>
Language of module delivery	<b>English</b>
Semester in the programme of study in which the module is taught	<b>Semester 7</b>
Semester in the academic year in which the module is taught	<b>Winter semester</b> <i>(winter / summer)</i>
Pre-requisites	<b>None</b> <i>(module code/module title, where appropriate)</i>
Examination required	<b>No</b> <i>(yes / no)</i>
ECTS credits	<b>4</b>

Mode of instruction	lectures	classes	laboratories	project	others
<b>Total hours per semester</b>	<b>30</b>			<b>30</b>	

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

### C. LEARNING OUTCOMES AND ASSESSMENT METHODS

<b>Module aims</b>	The aim of the module is to familiarise students with knowledge of the analysis and cost accounting in an enterprise, preparing the balance of the enterprise, the methods of assessing building enterprises, preparing constructional cost calculation for renovation works (drawing particular attention to scaffoldings with the use of the Norma program).
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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 knows basic directives concerning cost calculation of building works.	l/p	B_W08	T1A_W03 T1A_W07 T1A_W08
W_02	A student knows the norms and standards of work, material use, and the operation of equipment in civil engineering. In addition, a student is knowledgeable about engineering economics and cost calculation. A student is also knowledgeable about assessment methods as regards economic effectiveness of constructional enterprises.	l/p	B_W14	T1A_W08 T1A_W09 T1A_W03 T1A_W04
W_03	A student has fundamental knowledge on running a business activity as well as the procedures binding while realising a building investment.	l	B_W15 B_W16	T1A_W06 T1A_W08 T1A_W09 T1A_W11
W_04	A student knows computer programs for pre-estimating and providing cost estimation of building works.	l/p	B_W17	T1A_W01 T1A_W02 T1A_W05 T1A_W07
U_01	A student can interpret the obtained results.	p	B_U12	T1A_U01 T1A_U07 T1A_U08 T1A_U09 T1A_U14 T1A_U15
U_02	A student can prepare a pre-estimation and cost calculation of building works. In addition, a student can prepare cost analysis of a building investment.	l/p	B_U19	T1A_U10 T1A_U12 T1A_U15
U_03	A student can organise works at a construction site according to management principles.	l	B_U21	T1A_U09 T1A_U12 T1A_U13 T1A_U16
U_04	A student can use a program for pre-estimation and cost calculation of building works.	p	B_U27	T1A_U01 T1A_U02 T1A_U04 T1A_U05 T1A_U09 T1A_U15 T1A_U16
U_05	A student is capable of obtaining information concerning civil engineering from the literature on the subject. A student is also capable of self-education.	l/p	B_U29	T1A_U01 T1A_U03 T1A_U04 T1A_U05 T1A_U06 T1A_U07

				T1A_U10
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 is responsible for the reliability of the presented results of his/her work (and their interpretation).	p	B_K02	T1A_K02 T1A_K05 T1A_K07
K_03	A student is aware of raising his/her professional competences; a student also independently improves and broadens his/her knowledge.	l/p	B_K03	T1A_K01 T1A_K05 T1A_K06

### Module content:

#### 1. Topics to be covered in the lectures

No.	Topics	Module outcome code
1	Basic notions concerning economics.	W_02 W_03 U_02 K_03
2	Market, supply and demand.	W_02 U_02 K_03
3	Legal and organisational definitions and forms of constructional enterprises.	W_02 U_02 K_03
4	Costs and their structures in a constructional enterprise.	W_01 W_02 W_04 U_02 U_03 K_03
5	Balance and its analysis.	W_02 W_03 U_02 K_03
6	The depreciation of fixed assets.	W_02 W_03 U_02 K_03
7	Economic indices assessing enterprise activity.	W_03 U_02 K_03
8	Break-even point of an enterprise.	W_03 U_02 K_03
9	Marketing and marketing research of the constructional market.	W_03 U_02 K_03
10	The methods of determining the value of enterprises.	W_03 U_02 K_03
11	The methods of assessing economic projects.	W_03 U_02 K_03

12	The globalisation of economic processes.	W_03 U_02 U_05 K_03
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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 - 2	Broadening students' knowledge as regards preparing the pre-estimation with the use of the NormaPRO application: a global and local constant; mathematical formulas and functions.	W_01 W_04 U_04 K_03
3 – 4	Pre-estimation of internal scaffoldings; operating time of scaffoldings.	W_01 U_02 K_02
5	Dimensioning external scaffoldings.	W_01 U_02 K_02
6-9	Cost calculation of renovation works; the catalogues of expenditures on tangible assets as regards renovation works.	W_02 W_04 U_01 U_02 U_04 K_02
10-11	Variant cost calculation.	W_02 W_04 U_02 U_04 K_04
12	Non-catalogue positions; the modification of positions.	W_02 W_04 U_02 K_03
13	Creating own catalogues of expenditures on tangible assets as well as the databases of prices concerning production factors (together with unit prices).	W_02 W_04 U_02 U_04 K_01
14-15	Technical specification of the realisation and acceptance of building works.	W_01 U_02 U_05 K_03

### 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	A test and a project
W_02	A test and a project
W_03	A test
W_04	A test and a project

U_01	A test
U_02	A test and a project
U_03	A test
U_04	A test and a project
U_05	A test and a project
K_01	A project
K_02	A project
K_03	A test and a project
K_04	A project

### C. STUDENT LEARNING ACTIVITIES

ECTS summary		
	Type of learning activity	Study time/ credits
1	Contact hours: participation in lectures	<b>30</b>
2	Contact hours: participation in classes	
3	Contact hours: participation in laboratories	
4	Contact hours: attendance at office hours (2-3 appointments per semester)	<b>3</b>
5	Contact hours: participation in project-based classes	<b>30</b>
6	Contact hours: meetings with a project module leader	<b>12</b>
7	Contact hours: attendance at an examination	
8		
9	<b>Number of contact hours</b>	<b>75</b> <i>(total)</i>
10	<b>Number of ECTS credits for contact hours</b> <i>(1 ECTS credit =25-30 hours of study time)</i>	<b>3</b>
11	Private study hours: background reading for lectures	<b>4</b>
12	Private study hours: preparation for classes	
13	Private study hours: preparation for tests	<b>6</b>
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	<b>20</b>
18	Private study hours: preparation for an examination	
19		
20	<b>Number of private study hours</b>	<b>30</b> <i>(total)</i>
21	<b>Number of ECTS credits for private study hours</b> <i>(1 ECTS credit =25-30 hours of study time)</i>	<b>1</b>
22	<b>Total study time</b>	<b>105</b>
23	<b>Total ECTS credits for the module</b> <i>(1 ECTS credit =25-30 hours of study time)</i>	<b>4</b>
24	<b>Number of practice-based hours</b> <i>Total practice-based hours</i>	<b>65</b>
25	<b>Number of ECTS credits for practice-based hours</b> <i>(1 ECTS credit =25-30 hours of study time)</i>	<b>2.6</b>