

MODULE SPECIFICATION

Module code	
Module title in Polish	Ekonomika i Kosztorysowanie
Module title in English	Economics and Cost Estimation
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	The Department of Building Engineering Technologies and Organisation
Module co-ordinator	Agnieszka Molendowska, PhD, Eng.
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	Summer semester <i>(winter / summer)</i>
Pre-requisites	None <i>(module code/module title, where appropriate)</i>
Examination required	No <i>(yes / no)</i>
ECTS credits	2

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

* 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 knowledge concerning the methods of cost estimation as well as the principles of pre-estimation of building works, the principles of standardizing people's work, mater use, and machine operation, the principles of conducting tenders, negotiations, and agreements in the realisation and investment process. Another aim of the module is to familiarize students with the ability of preparing constructional cost estimation (with the use the Norma program).
--------------------	---

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 estimation 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 estimation.	l/p	B_W14	T1A_W08 T1A_W09 T1A_W03 T1A_W04
W_03	A student has basic knowledge on the procedures while realising building investment.	l	B_W16	T1A_W08 T1A_W09 T1A_W11
W_04	A student knows computer programs to pre-estimate and provide 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 estimation 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 use a program to pre-estimate and calculate costs of building works.	p	B_U27	T1A_U01 T1A_U02 T1A_U04 T1A_U05 T1A_U09 T1A_U15 T1A_U16
U_04	A student is 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 obtained results of his/her work (and their	p	B_K02	T1A_K02 T1A_K05

	interpretation).			T1A_K07
K_03	A student is aware of raising his/her professional competences; a student individually improves and broadens his/her knowledge.	I/p	B_K03	T1A_K01 T1A_K05 T1A_K06
K_04	A student formulates conclusions and describes the results of his/her work.	p	B_K04	T1A_K01 T1A_K07

Module content:

1. Topics to be covered in the lectures

No.	Topics	Module outcome code
1	Norms and standardisation in civil engineering.	W_01 W_02 U_04 K_03
2	Costs and their structures in construction engineering enterprise.	W_02 U_02 U_04
3	Investment process (its phases and stages).	W_03 U_04
4	Cost estimation in civil engineering.	W_01 W_04 U_02 U_04
5	Tenders and their organisation in civil engineering.	W_03 U_04 K_03
6	Negotiations and agreements in the realisation and investment process.	W_03 U_04 K_03
7	Cost estimation according to FIDIC.	W_02 U_02 U_04

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	Discussing the principles of pre-estimation.	W_01 U_02 U_04 K_02 K_03
3 - 6	Completing a pre-estimation with the Norma program.	W_04 U_01 U_02 U_03 U_04 K_01 K_02 K_03 K_04
7 - 9	Preparing cost estimation as with the method of simplified and detailed calculation.	W_01 W_02

		U_01 U_02 U_04 K_01 K_02 K_03 K_04
10-15	Completing calculation with the Norma program.	W_04 U_01 U_02 U_03 U_04 K_01 K_02 K_03 K_04

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 and a project
W_04	A test and a project
U_01	A project
U_02	A test and a project
U_03	A project
U_04	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	15
2	Contact hours: participation in classes	
3	Contact hours: participation in laboratories	
4	Contact hours: attendance at office hours (2-3 appointments per semester)	2
5	Contact hours: participation in project-based classes	30
6	Contact hours: meetings with a project module leader	3
7	Contact hours: attendance at an examination	
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	8
18	Private study hours: preparation for an examination	
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>	43
25	Number of ECTS credits for practice-based hours <i>(1 ECTS credit =25-30 hours of study time)</i>	1.4