MODULE SPECIFICATION

Module code	
Module title in Polish	**Przegląd budowli i konstrukcji inżynierskich**
Module title in English	**Types of Buildings and Engineering Structures (Overview)**
Module running from the academic year	**2016/2017**

A. MODULE IN THE CONTEXT OF THE PROGRAMME OF STUDY

Field of study	**Surveying and Cartography**
Level of qualification	**first cycle** (first cycle, second cycle)
Programme type	**academic** (academic/practical)
Mode of study	**full-time** (full-time/part-time)
Specialism	**all**
Organisational unit responsible for module delivery	**The Department of Building Physics and Renewable Energy**
Module co-ordinator	**Jerzy Piotrowski, PhD hab., Eng., Professor of the University**
Approved by:	**Jerzy Piotrowski, PhD hab., Eng., Professor of the University**

B. MODULE OVERVIEW

Module type	**core module** (core/programme-specific/elective HES*)
Module status	**compulsory module** (compulsory/optional)
Language of module delivery	**English**
Semester in the programme of study in which the module is taught	**semester 3**
Semester in the academic year in which the module is taught	**winter semester** (winter semester/summer semester)
Pre-requisites	**None** (module code/module title, where appropriate)
Examination required	**No** (Yes/No)
ECTS credits	**2**

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

Mode of instruction	lectures	classes	laboratories	project	others

Total hours per semester	**15**	**15**			

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C. LEARNING OUTCOMES AND ASSESSMENT METHODS

Module aims	The aim of the module is to familiarise students with the types of buildings and civil engineering structures as regards residential buildings, industrial buildings, networks, road construction, bridge construction, underground and hydraulic engineering. Another aim is to become acquainted with the knowledge on measuring the elements of buildings and constructions during their realisation and exploitation (together with their failures).

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 is familiar with the types of buildings and industrial construction (as well as their particular elements). Moreover, a student knows the mechanisms of forming failures.	l	GiK_W01 GiK_W26	T1A_W01 T1A_W06 T1A_W07
W_02	A student knows the types of network, bridge and road construction, underground construction and hydraulic engineering (a student also knows their particular elements).	l	GiK_W01 GiK_W27	T1A_W01 T1A_W07
W_03	A student has knowledge as regards completing surveying inventory as well as civil engineering structures.	l/c	GiK_W07 GiK_W10 GiK_W12 GiK_W13 GiK_W21	T1A_W02 T1A_W03 T1A_W04 T1A_W06 T1A_W07
U_01	A student can recognise particular types of building structures as well as their construction elements.	l/c	GiK_U03 GiK_U07 GiK_U14 GiK_U18 GiK_U23 GiK_U26	T1A_U01 T1A_U03 T1A_U05 T1A_U06 T1A_U08 T1A_U09 T1A_U15 T1A_U16
U_02	A student is able to make surveying inventory of buildings and constructions (together with the signs and failure effects).	l/c	GiK_U07 GiK_U14 GiK_U21 GiK_U23 GiK_U25 GiK_U26	T1A_U03 T1A_U06 T1A_U08 T1A_U13 T1A_U15 T1A_U16
K_01	A student can work independently and in a team on a practical task.	c	GiK_K02 GiK_K03 GiK_K05	T1A_K01 T1A_K02 T1A_K05 T1A_K07
K_02	A student is aware of the sound performance of the task.	c	GiK_K06	T1A_K03
K_03	A student formulates appropriate conclusions and recommendations.	ć	GiK_K10	T1A_K07

Module content:

1. Topics to be covered in the lectures

No.	Topics	Module outcome code
1	The types of building structures in terms of the construction law. The types of buildings, constructions, and civil engineering structures. The significance and role of construction elements. Measurement control during their construction.	W_01 W_02 W_03

		W_04 U_01
2	Industrial buildings, halls, chimneys, independent foundations for machines.	W_01 W_03 W_04 U_01
3	Construction elements of buildings: foundations, support elements, poles and bolts, overlaps. Control measurement of building construction elements during erection.	W_01 W_03 W_04 U_01
4	The types of civil engineering structures of network, road, bridge, and underground construction (as well as hydraulic engineering).	W_02 W_03 W_04 U_01
5	Construction elements of civil engineering structures. Measurement control of the elements as regards civil engineering structures.	W_02 W_03 W_04 U_01
6	The mechanism of failure occurrence. The identification of signs and failure effects (together with the failures of construction elements, i.e. scratches, cracks, and displacements). The threats resulting from failures.	W_05 U_02
7	Surveying inventory during the exploitation of construction objects.	W_03 U_02

2. Topics to be covered in the classes

No.	Topics	Module outcome code
1-2	Making basic surveying measurements of particular construction elements of buildings and structures.	W_03 U_01 K_01
3-4	Surveying measurements of particular elements of civil engineering structures.	W_04 U_01 K_01
5-6	Measurement control of objects in the failure state.	W_06 U_02 K_02 K_03
7-8	Completing surveying inventory of a building and structure.	W_06 U_02 K_02

Assessment methods

Module outcome code	Assessment methods *(Method of assessment; for module skills – reference to specific project, laboratory and similar tasks)*
W_01	A test
W_02	A test
W_03	A test
W_04	A test
W_05	A test

W_06	A test
U_01	A test
U_02	A test
K_01	Observing a student's involvement during the classes, a discussion during the lectures and classes
K_02	Observing a student's involvement during the classes, a discussion during the lectures and classes
K_03	Observing a student's involvement during the classes, a discussion during the lectures and classes

D. 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	**15**
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	
6	Contact hours: meetings with a project module leader	
7	Contact hours: attendance at an examination	
8		
9	**Number of contact hours**	**32** *(sum)*
10	**Number of ECTS credits for contact hours** *(1 ECTS credit =25-30 hours of study time)*	**1.28**
11	Private study hours: background reading for lectures	**8**
12	Private study hours: preparation for classes	**10**
13	Private study hours: preparation for tests	**10**
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	
18	Private study hours: preparation for an examination	
19		
20	**Number of private study hours**	**18** *(sum)*
21	**Number of ECTS credits for private study hours** *(1 ECTS credit =25-30 hours of study time)*	**0.72**
22	**Total study time**	**50**
23	**Total ECTS credits for the module** *(1 ECTS credit =25-30 hours of study time)*	**2**
24	**Number of practice-based hours** *Total practice-based hours*	**0**
25	**Number of ECTS credits for practice-based hours** *(1 ECTS credit =25-30 hours of study time)*	**0**

E. READING LIST

References	
Module website	