

## MODULE SPECIFICATION

Module code	
Module title in Polish	<b>Geometria wykreślna i rysunek techniczny 2</b>
Module title in English	<b>Descriptive Geometry and Technical Drawing 2</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	
Organisational unit responsible for module delivery	The Department of Architecture and Town Planning
Module co-ordinator	Piotr Dobosz, PhD
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 2</b>
Semester in the academic year in which the module is taught	<b>Summer 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>2</b>

Mode of instruction	lectures	classes	laboratories	project	others
<b>Total hours per semester</b>	<b>15</b>		<b>15</b>		

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

### C. LEARNING OUTCOMES AND ASSESSMENT METHODS

<b>Module aims</b>	The aims of the module include the following: the abilities of graphical solving of constructional issues on the plane of a drawing as well as preparing drawings with the use of classical method of projection and reading technical drawings with the images of the designed or existing objects. Another aim is to develop spatial imagination and deductive thinking.
--------------------	--

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 mastered the principles of preparing and reading graphical forms of recording information applied in studies of design documentation.	I/I	B_W05 B_W08	T1A_W01 T1A_W02 T1A_W03 T1A_W07 T1A_W08
W_02	A student has mastered basic notions as well as the principles of projecting a point, a straight line, a plane, and terrain in a projection with elevations.	I/I	B_W05	T1A_W01 T1A_W02 T1A_W03 T1A_W07
W_03	A student has become familiarised with the principle of providing solutions concerning roofs with joints at the same angle against a horizontal projection plane. In addition, a student has become familiarised with the types of vaults.	I/I	B_W05	T1A_W01 T1A_W02 T1A_W03 T1A_W07
U_01	A student has the ability of correct application and use of information included in drawings of building structures.	I/I	B_U07 B_U13	T1A_U03 T1A_U05 T1A_U07 T1A_U11 T1A_U14 T1A_U15 T1A_U16
U_02	A student can apply a projection with elevations in ground works.	I/I	B_U07	T1A_U03 T1A_U05 T1A_U14 T1A_U15 T1A_U16
U_03	A student can provide solutions concerning roofs on detached building; a student can also solve sample roofs on adjacent buildings.	I/I	B_U07	T1A_U03 T1A_U05 T1A_U14 T1A_U15 T1A_U16
K_01	A student can obtain the necessary knowledge; furthermore, a student can work individually.	I	B_K01	T1A_K01 T1A_K03 T1A_K04
K_02	A student is capable of participating actively in a discussion; a student can also work in a team.	I	B_K02 B_K04	T1A_K01 T1A_K02 T1A_K05 T1A_K07

#### Module content:

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

No.	Topics	Module outcome code
1 -2	A drawing of reinforced concrete structures.	W_01

		U_01
3-4	A projection with elevations.	W_02 U_02
5-6	The Monge method (transformations); the transformations of the reference system.	W_03
7-8	Roof geometry.	W_03 U_03
9-10	Second-order curves and their applications. Second-order surfaces; sections and developments of second-order surfaces.	W_03
11-12	The geometry of vaults. Familiarising students with the types of ruled surfaces.	W_03
13-14	A drawing of metal structures.	W_01 U_01

2. Topics to be covered in the classes

3. Topics to be covered in the laboratories

No.	Topics	Module outcome code
1-2	A drawing of a roof truss.	U_01 K_01
3-4	The application of a projection with elevations.	W_02 U_02
5-6	A drawing of a reinforced concrete pillar or slab reinforced concrete stairs.	W_01 U_01 K_02
7-11	Roof geometry.	W_03 U_03 K_01
12-14	A drawing of a steel pole with lacings or a truss pole.	W_01 U_01 K_02

4. Topics to be covered in the projects

### 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 project and a test
W_02	A project and a test
W_03	A project and a test
U_01	A project and a test
U_02	A project and a test
U_03	A project and a test
K_01	A project and a test
K_02	A project and a test

## C. STUDENT LEARNING ACTIVITIES

ECTS summary		
	Type of learning activity	Study time/ credits
1	Contact hours: participation in lectures	<b>15</b>
2	Contact hours: participation in classes	
3	Contact hours: participation in laboratories	<b>15</b>
4	Contact hours: attendance at office hours (2-3 appointments per semester)	
5	Contact hours: participation in project-based classes	
6	Contact hours: meetings with a project module leader	
7	Contact hours: attendance at an examination	<b>2</b>
8		<b>32</b> <i>(total)</i>
9	<b>Number of contact hours</b>	
10	<b>Number of ECTS credits for contact hours</b> <i>(1 ECTS credit =25-30 hours of study time)</i>	<b>1.3</b>
11	Private study hours: background reading for lectures	
12	Private study hours: preparation for classes	
13	Private study hours: preparation for tests	
14	Private study hours: preparation for laboratories	<b>4</b>
15	Private study hours: writing reports	
16	Private study hours: preparation for a final test in laboratories	<b>3</b>
17	Private study hours: preparation of a project/a design specification	<b>19</b>
18	Private study hours: preparation for an examination	
19		
20	<b>Number of private study hours</b>	<b>26</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>58</b>
23	<b>Total ECTS credits for the module</b> <i>(1 ECTS credit =25-30 hours of study time)</i>	<b>2</b>
24	<b>Number of practice-based hours</b> <i>Total practice-based hours</i>	<b>41</b>
25	<b>Number of ECTS credits for practice-based hours</b> <i>(1 ECTS credit =25-30 hours of study time)</i>	<b>1.6</b>