



MODULE SPECIFICATION

Module code	
Module title in Polish	Pomiary realizacyjne i tyczenie budowli
Module title in English	Construction-Site Surveys and Setting Out Structures
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	Engineering Surveys (graduation path)
Organisational unit responsible for module delivery	The Department of Geotechnical Engineering, Geomatics and Waste Management
Module co-ordinator	Prof. Bogdan Wolski, PhD hab., Eng.
Approved by:	Ryszard Florek-Paszowski, PhD, Eng.

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 6
Semester in the academic year in which the module is taught	summer semester (winter semester/summer semester)
Pre-requisites	None (module code/module title, where appropriate)
Examination required	no (Yes/No)
ECTS credits	1

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

Mode of instruction	lectures	classes	laboratories	project	others
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Politechnika Świętokrzyska

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Total hours per semester	15				
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C. LEARNING OUTCOMES AND ASSESSMENT METHODS

Module aims	The aim of the module is to acquaint students with basic knowledge on legal and technological basics which concern realisation surveys in surveying. Students become familiarised with basic notions, definitions, methods, and techniques.
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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 acquires basic knowledge as regards legal and technological fundamentals of setting out surveys.	I	GiK_W09	T1A_W03
W_02	A student is familiar with the methods of preparing surveying observations which are necessary to set out indispensable elements during the realisation of buildings.	I	GiK_W03	T1A_W01, T1A_W04, T1A_W07
W_03	A student is able to design measurement and working control networks; survey them, interpret survey results, and draw the necessary conclusions.	I	GiK_W13	T1A_W03, T1A_W04
W_04	A student is able to plan and take measurements during the inventory and setting out buildings.	I	GiK_W21	T1A_W03, T1A_W07
U_01	A student can make surveying project preparation as well as setting out structures with diverse survey techniques.	I	GiK_U23	T1A_U15, T1A_U16
U_02	A student is capable of stage and final inventory of structures as part of surveying investment service.	I	GiK_U25	T1A_U16
K_01	A student understands the necessity and knows the possibilities of continuous raising professional qualifications which result from changes in regulations as well as technology changes applied in topographic surveys.	I	GiK_K01	T1A_K01
K_02	A student is aware of the necessity of self-betterment as well as acting professionally and responsibly according to the principles of professional ethics.	I	GiK_K02	T1A_K01, T1A_K02, T1A_K05, T1A_K07

Module content:

1. Topics to be covered in the lectures

No.	Topics	Module outcome code
1	Surveys taken while preparing a base map for design purposes and setting out a building.	W_01, W_02, U_01, K_01, K_02
2	Surveying service during the construction of halls.	W_03, W_04, U_01, U_02, K_01
3	Surveying service during the construction of a multi-storey building.	W_03, W_04, U_01, U_02, K_01
4	Surveying service during the construction of terrain development.	W_03, W_04, U_01, U_02, K_01 K_02
5	Setting out surveys during particular stages of road construction and management elements connected with it.	W_03, W_04, U_01, U_02, 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, W_02, W_03, W_04, U_01, U_02	A test
K_01, K_02	A discussion during the lectures and obtaining a credit.

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	
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	17 <i>(total)</i>
10	Number of ECTS credits for contact hours <i>(1 ECTS credit = 25-30 hours of study time)</i>	0.68
11	Private study hours: background reading for lectures	4
12	Private study hours: preparation for classes	
13	Private study hours: preparation for tests	4
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	8 <i>(total)</i>
21	Number of ECTS credits for private study hours <i>(1 ECTS credit = 25-30 hours of study time)</i>	0.32
22	Total study time	25
23	Total ECTS credits for the module <i>(1 ECTS credit = 25-30 hours of study time)</i>	1



24	Number of practice-based hours <i>Total practice-based hours</i>	0
25	Number of ECTS credits for practice-based hours <i>(1 ECTS credit = 25-30 hours of study time)</i>	0

E. READING LIST

References	<ol style="list-style-type: none">1. Russell C. Brinker <i>The Surveying Handbook</i>. Technology & Engineering 20132. Reports on Geodesy. Warsaw University of Technology.3. Geomatics and Environmental Engineering. AGH University of Science and Technology
Module website	<ol style="list-style-type: none">1. http://www.spar3d.com. Jan van Sickle. <i>The Engineering Surveying Manual</i>, 20152. W. Schofield. <i>Engineering surveying</i> (5th edition), free download