



MODULE SPECIFICATION

Module code	
Module title in Polish	Systemy geoinformacyjne GIS
Module title in English	Geographic Information Systems GIS
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 Geotechnical Engineering, Geomatics and Waste Management
Module co-ordinator	Beata Hejmanowska, PhD hab., Eng., Professor of the University
Approved by:	Ryszard Florek-Paszkowski, 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 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	3

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

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



Politechnika Świętokrzyska

WYDZIAŁ INŻYNIERII ŚRODOWISKA, GEOMATYKI I ENERGETYKI

semester					
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C. LEARNING OUTCOMES AND ASSESSMENT METHODS

Module aims	The aim of the module is to familiarise students with basic knowledge on the GIS systems. Students acquire basic knowledge on the utilisation of GIS databases for the needs of supporting decisions. Another aim of the classes is to acquaint students with both theoretical and practical skills.
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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 obtains basic knowledge on data gathered in GIS systems as part of the European infrastructure of spatial information.	l/l	GiK_W14	T1 A_W03 T1 A_W04 T1 A_W05
W_02	A student obtains basic knowledge on spatial analyses utilised for the needs of supporting the decision-making process.	l/l	GiK_W11 GiK_W14	T1 A_W03 T1 A_W04 T1 A_W05
U_01	A student can make simple spatial analyses in the GIS system.	l	GiK_U19	T1A_U09 T1A_U10
U_02	A student can make simple statistical analyses and present their graphical representations with GIS tools.	l	GiK_U15	T1A_U08 T1A_U09
K_01	A student is aware of the impact of spatial analyses on the decision-making process.	l/l	GiK_K05	T1A_K02
K_02	A student is aware of the responsibility connected with delivering and utilising data from various sources in the process of utilising GIS systems.	l/l	GiK_K06	T1A_K03

Module content:

1. Topics to be covered in the lectures

No.	Topics	Module outcome code
1	Introduction to GIS systems.	W_01
2-3	Data models in GIS.	W_02
4-5	Spatial and non-spatial models in the decision-making process.	W_02 K_01 K_02
6-7	The existing national and foreign GIS databases. The INSPIRE directive.	W_02 K_01 K_02

2. Topics to be covered in the classes

No.	Topics	Module outcome code
1-2	Introduction to GIS software and data types.	U_01, U_02 K_01, K_02
3-5	The selected spatial analyses.	U_01, U_02 K_01, K_02
6-7	Graphical presentation of the results of spatial analyses.	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	A test and obtaining a credit for the project
W_02	A test and obtaining a credit for the project
U_01	A test and obtaining a credit for the project
U_02	A test and obtaining a credit for the project
K_01	Observing a student's involvement during the classes and a discussion during the classes
K_02	Observing a student's involvement during the classes and a discussion during the 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	
3	Contact hours: participation in laboratories	15
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	
8		
9	Number of contact hours	30 <i>(sum)</i>
10	Number of ECTS credits for contact hours <i>(1 ECTS credit = 25-30 hours of study time)</i>	1.2
11	Private study hours: background reading for lectures	10
12	Private study hours: preparation for classes	-
13	Private study hours: preparation for tests	10
14	Private study hours: preparation for laboratories	8
15	Private study hours: writing reports	7
16	Private study hours: preparation for a final test in laboratories	10
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	45 <i>(sum)</i>
21	Number of ECTS credits for private study hours <i>(1 ECTS credit = 25-30 hours of study time)</i>	1.8
22	Total study time	75
23	Total ECTS credits for the module <i>(1 ECTS credit = 25-30 hours of study time)</i>	3
24	Number of practice-based hours <i>Total practice-based hours</i>	45
25	Number of ECTS credits for practice-based hours <i>(1 ECTS credit = 25-30 hours of study time)</i>	1.7

E. READING LIST

References	
Module website	