



MODULE SPECIFICATION

Module code	
Module title in Polish	Nowoczesne budownictwo inżynieryjne
Module title in English	Modern Water Supply and Wastewater Engineering
Module running from the academic year	2016/2017

A. MODULE IN THE CONTEXT OF THE PROGRAMME OF STUDY

Field of study	Environmental Engineering
Level of qualification	first cycle (first cycle, second cycle)
Programme type	academic (academic/practical)
Mode of study	full-time (full-time/part-time)
Specialism	Sanitary Pipelines and Systems
Organisational unit responsible for module delivery	Department of Piped Utility Systems
Module co-ordinator	Urszula Kubicka, PhD, Eng.
Approved by:	Prof. Andrzej Kulickowski, PhD hab., Eng.

B. MODULE OVERVIEW

Module type	Programme-specific module (core/programme-specific/elective HES*)
Module status	optional module (compulsory/optional)
Language of module delivery	Polish/ English
Semester in the programme of study in which the module is taught	semester 7
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	1

* 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				



C. LEARNING OUTCOMES AND ASSESSMENT METHODS

Module aims	The aim of the module is to familiarise students with the newest and the most interesting realisations of pipeline, sewage, and multi-functional networks and objects of the recent years (which were completed with modern constructional technologies).
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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 is knowledgeable about currently used trenchless technologies of building pipeline, sewage, and multi-functional networks and objects.	I	IŚ_W06	T1A_W03 T1A_W04 T1A_W05 T1A_W07
W_02	A student knows the problems occurring in the process of building water and sewage infrastructure.	I	IŚ_W15	T1A_W04
U_01	A student can critically assess the methods of building networks and objects of water and sewage infrastructure.	I	IŚ_U02 IŚ_U27	T1A_W01 T1A_U05 T1A_U07 T1A_U15
K_01	A student is aware of constant progress in the field of constructional technologies; a student also understands the necessity of continuous self-education.	I	IŚ_K03 IŚ_K09	T1A_K01 T1A_K02 T1A_K04

Module content:

1. Topics to be covered in the lectures

No.	Topics	Module outcome code
1 ÷ 8	Presenting the selected, the newest, and the most interesting of pipeline, sewage, and multi-functional networks and objects from the recent years (which were completed with modern constructional technologies). The subject matter of the lecture depends on the contents of the newest periodicals, i.e. Trenchless Technology, and World Trenchless.	W_01 W_02 U_01 K_01

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
W_02	A test
U_01	A test
K_01	A test. 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	
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	3
12	Private study hours: preparation for classes	
13	Private study hours: preparation for tests	5
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>	1.00
24	Number of practice-based hours <i>Total practice-based hours</i>	
25	Number of ECTS credits for practice-based hours <i>(1 ECTS credit = 25-30 hours of study time)</i>	

E. READING LIST

References	1. "Trenchless Technology" magazine – selected articles, from issue 01/2010 till now, 2. "World Trenchless" magazine – selected articles, from issue 01/2010 till now.
Module website	