



MODULE SPECIFICATION

Module code	
Module title in Polish	<i>Warunki wykonawstwa i odbioru urządzeń technicznych</i>
Module title in English	The Conditions of Realisation and Acceptance of Technical Devices
Module running from the academic year	2017/2018

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	Water Supply, Treatment of Wastewater and Solid Waste
Organisational unit responsible for module delivery	Department of Water and Wastewater Technology
Module co-ordinator	Katarzyna Górską, PhD, Eng.
Approved by:	Lidia Dąbek, PhD hab., 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	Polish/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
Total hours per semester	30				



Politechnika Świętokrzyska

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C. LEARNING OUTCOMES AND ASSESSMENT METHODS

Module aims	The aim of the module is to familiarise students with: the issues of transport (including machines and devices), transport at a construction site, the conditions of organizing a construction site, the OHS plan, earthworks, the realisation as well as partial and final acceptance, pipeline networks as well as their reinforcement as well as sewage system network for the realisation of water conditioning plant and OMB.
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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 familiar with the most common materials and equipment utilised in constructional and assembly works.	I	IŚ_W06	T1A_W03 T1A_W05 T1A_W07
W_02	A student knows general conditions of conducting and accepting installation works.	I	IŚ_W09 IŚ_W10	T1A_W03 T1A_W04 T1A_W05 T1A_W06 T1A_W07
W_03	A student knows the principles of the quality control system and accepting water and sewage acceptance works.	I	IŚ_W09 IŚ_W10	T1A_W03 T1A_W04 T1A_W05 T1A_W06 T1A_W07
U_01	A student can prepare technical documentation as regards the realisation and acceptance of sanitary- network water and sewage installation devices.	I	IŚ_U04	T1A_U03 T1A_U08 T1A_U07
U_02	A student can use devices, guidelines, norms, and standards as regards the realisation and acceptance of sanitary devices.	I	IŚ_U02	T1A_U01 T1A_U05 T1A_U07
K_01	A student is aware of the necessity of raising his/her professional competences; a student also independently improves his/her knowledge as regards new technologies in environmental engineering.	I	IŚ_K03	T1A_K01 T1A_K03 T1A_K04
K_02	A student understands the significance of technological progress and the necessity of new solutions in environmental engineering; a student also understands non-technical aspects of environmental engineering.	I	IŚ_K09	T1A_K02

Module content:

1. Topics to be covered in the lectures

No.	Topics	Module outcome code
1-2	Familiarising students with the syllabus of the lectures; discussing the literature on the subject, guidelines, and instructions.	W_01 W_02
3-5	Preparatory works, synthetic discussion of systems and pipeline as well as sewage devices. Transport, warehousing of products and devices; procedures during the unloading and assembly of pipes at a construction site; the principles of realising earthworks and assembly; discussing an OHS plan; discussing the role of the participants of the investment process.	W_01 W_02 U_01 K_01 K_02



6-8	The realisation of works (including earthworks, the type of soil and their characteristics, and soil drainage). The types of excavations, including the ones with and without reinforcements; suggested excavation width and the foundation of pipelines on concrete.	W_01 W_02 U_01 K_02
9-11	The assembly of pipelines and their reinforcement on a pipeline and sewage network. Conducting tightness tests. The acceptance of the sections of ducts and their formal documentation.	W_01 W_02 W_03 U_01 U_02 K_01
12-13	The passage of ducts under terrain obstacles and through the walls of buildings.	W_01 W_02 K_02
14-15	Auxiliary and finishing works, quality control, formal constructional works accounting.	W_01 W_02 W_03 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
W_02	A test
W_03	A test
U_01	A test
U_02	A test
K_01	A test
K_02	A test



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 (total)
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	5
12	Private study hours: preparation for classes	
13	Private study hours: preparation for tests	
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	3
19		
20	Number of private study hours	8 (total)
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>	
25	Number of ECTS credits for practice-based hours <i>(1 ECTS credit = 25-30 hours of study time)</i>	

E. READING LIST

References	
Module website	1. Current regulations (www.gov.sejm.pl) 2. Polish and European technical standards