

## COURSE DESCRIPTION CARD – SPECIMEN

Faculty of Civil Engineering and Environmental Sciences									
Field of study	Environmental Engineering							Degree level and programme type	Bachelor's degree
Specialization/ diploma path	International School of Engineering							Study profile	Academic profile
Course name	Sanitary installations							Course code	19284218H/IS1S61046
								Course type	Obligatory
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	VI
	2	-	-	2	-	-	-	No. of ECTS credits	4
Entry requirements	Water supply systems, hydraulics								
Course objectives	Developing knowledge about the components and design of water and sanitary installations in buildings. Developing knowledge about the solutions in material used in building installations. Developing skills for determining type of installation in buildings, depending on the size and use of the building.								
Course content	Design, construction, operating of water, sanitary. Legal regulations related to design of building installations.								
Teaching methods	informative lecture, conversational lecture, discussing the problem, project								
Assessment method	lecture – written test project - project execution								
Symbol of learning outcome	Learning outcomes							Reference to the learning outcomes for the field of study	
LO1	Student defines the types of installations in buildings							K_W14	
LO2	Student describes the elements of the installations in buildings							K_W14	
LO3	Student classifies the materials in building installations							K_U07	
LO4	Student manages the procedures for construction of building installations							K_U18	
LO5	Student notes the problems operation of building installations							K_U19	
LO6	Student assesses the impact of improper functioning of the installation							K_K02	
Symbol of learning outcome	Methods of assessing the learning outcomes							Type of tuition during which the outcome is assessed	
LO1	written test							L	
LO2	written test							L	

<b>L03</b>	written test, project execution	<b>L, P</b>	
<b>L04</b>	written test, project execution	<b>L, P</b>	
<b>L05</b>	written test	<b>L</b>	
<b>L06</b>	written test	<b>L</b>	
<b>Student workload (in hours)</b>		<b>No. of hours</b>	
<b>Calculation</b>	lecture attendance	<b>32</b>	
	participation in classes, laboratory classes, etc.	<b>32</b>	
	preparation for classes, laboratory classes, projects, seminars, etc.	<b>16</b>	
	working on projects, reports, etc.	<b>16</b>	
	participation in student-teacher sessions related to the classes/seminar/project	<b>5</b>	
	implementation of project tasks	<b>8</b>	
	preparation for and participation in exams/tests	<b>8</b>	
<b>TOTAL:</b>		<b>117</b>	
<b>Quantitative indicators</b>		<b>HOURS</b>	<b>No. of ECTS credits</b>
<b>Student workload – activities that require direct teacher participation</b>		<b>69</b>	<b>2,8</b>
<b>Student workload – practical activities</b>		<b>85</b>	<b>3,4</b>
<b>Basic references</b>	1. Wise A.F.E., Swaffield J., Water, Sanitary and Waste Services for Buildings, Routledge, 2012; 2. Panchdhari A.C., Water Supply And Sanitary Installations, New Age International, 2005; 3. Garrett R.H., Hot and Cold Water Supply, Wiley, 2000.		
<b>Supplementary references</b>	1. Bartram J., Legionella and the Prevention of Legionellosis, World Health Organization, 2007		
<b>Organisational unit conducting the course</b>	<b>Department of Water Supply and Sewerage</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Jacek Dawidowicz, PhD DSc Eng.</b>	<b>10.05.2022</b>	

L – lecture, C – classes, LC – laboratory classes, P – project, SW – specialization workshop, FW - field work,  
S – seminar