

COURSE DESCRIPTION CARD

Faculty of Civil Engineering and Environmental Science									
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	Environmental Impact Assessment							Course code	19284214H/IS1S41030
								Course type	Obligatory
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	VI
	16	-	-	-	16	-	-	No. of ECTS credits	3
Entry requirements	Basic knowledge of chemistry and hydrology, air protection and basic knowledge of information technologies								
Course objectives	The aim of the course is to provide students knowledge about principles environmental impact assessment, including information on protection of habitats, protection of surface and groundwater, protection of soils, air protection, protection against noise, vibration and electromagnetic non-ionizing radiation, landscape protection, toxicology, waste management, basics of burning, basis for decision support. Practical outcome of the course is ability to perform environmental impact assessment.								
Course content	<p>LECTURES: Understanding the negative impact of the industry on the environment and the selection of technologies that minimize anthropopression. Evaluation of applied technologies in terms of pure production. Impact of installation on the environment. BAT - best available techniques. Renewable energy sources. Product life cycle. Pure production. Polish and international rules and regulations concerning the conduct of environmental impact assessments (EIA). Categories of nuisance of undertakings. The role of the investor and environmental services in the EIA procedure. Principles of sozotechnical negotiations. Value localization and technology. Qualification procedures and selected computing quantifications. Maximal Impact Assessment Systems. Forecasts of the effects of selected policies, strategies, plans of programs Rules for reporting environmental impact of selected municipal and breeding facilities.</p> <p>SPECIALIZATION WORKSHOP: Presentation of the selected environmental impact assessment report, its verification and assessment, presentation of strengths and weaknesses</p>								
Teaching methods	Information lecture, project - case study analysis, discussion, project-based learning								
Assessment method	Lecture - written test Project - project execution, presentation and discussion on the project, performing a SWOT analysis of the selected report								
Symbol of learning outcome	Learning outcomes							Reference to the learning outcomes for the field of study	
LO1	Student is able to develop an environmental impact assessment for a given engineering facility.							K_W09	
LO2	Student can name and explain existing and planned legal requirements in the area of environmental protection.							K_W014, K_W016	

L03	Student is able to identify the most important elements in the environment in environmental engineering.	K_U09	
L04	Student knows and is able to analyze issues related to the implementation of "Cleaner Technologies" in objects and technical systems related to environmental engineering.	K_U16	
L05	Student can indicate, compare and analyze the best available technologies (BAT).	K_U20	
L06	Student is able to carry out the task in the group and determine the validity and priorities during the EIA procedure.	K_K04	
Symbol of learning outcome	Methods of assessing the learning outcomes	Type of tuition during which the outcome is assessed	
L01	Project task documentation + attached file with calculations and presentation	SW	
L02	Lecture exam	L	
L03	Observation of work on exercises + Project task documentation	SW	
L04	Presentation and discussion on the project	SW	
L05	Project task documentation + attached file with calculations and presentation	SW	
L06	Lecture test + documentation of the project task	L, SW	
Student workload (in hours)		No. of hours	
Calculation	lecture attendance	16	
	participation in classes, laboratory classes, etc.	16	
	working on projects, reports, etc.	16	
	participation in student-teacher sessions related to the classes/seminar/project	5	
	implementation of project tasks (including presentation preparation)	16	
	preparation for and participation in exams/tests	8	
	TOTAL:	77	
Quantitative indicators		HOURS	No. of ECTS credits
Student workload – activities that require direct teacher participation		37	1.5
Student workload – practical activities		56	2.2
Basic references	<ol style="list-style-type: none"> 1. Eccleston, Charles H. Environmental Impact Assessment: A Guide to Best Professional Practices, CRC Press, 2011. 2. Tromans S. Environmental Impact Assessment, Bloomsbury Professional; 2nd Revised edition edition, 2012. 3. Valli Manickam: Environmental Impact Assessment Methodologies, BS Publications, 2021, ISBN: 9391910491 		
Supplementary references	<ol style="list-style-type: none"> 1. Daniel, S., Tsoulfas, G., Pappis, C., & Rachaniotis, N. Aggregating and evaluating the results of different Environmental Impact Assessment methods Ecological indicators, 2004. 		
Organisational unit conducting the course	Department of Technology in Environmental Engineering	Date of issuing the programme	

Author of the programme	PhD Eng Ewa Szatyłowicz	May 2022
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L – lecture, C – classes, LC – laboratory classes, P – project, SW – specialization workshop, FW - field work,

S – seminar